

May 30th, 2024 Permian Basin and Lower Trans Pecos Severe Weather

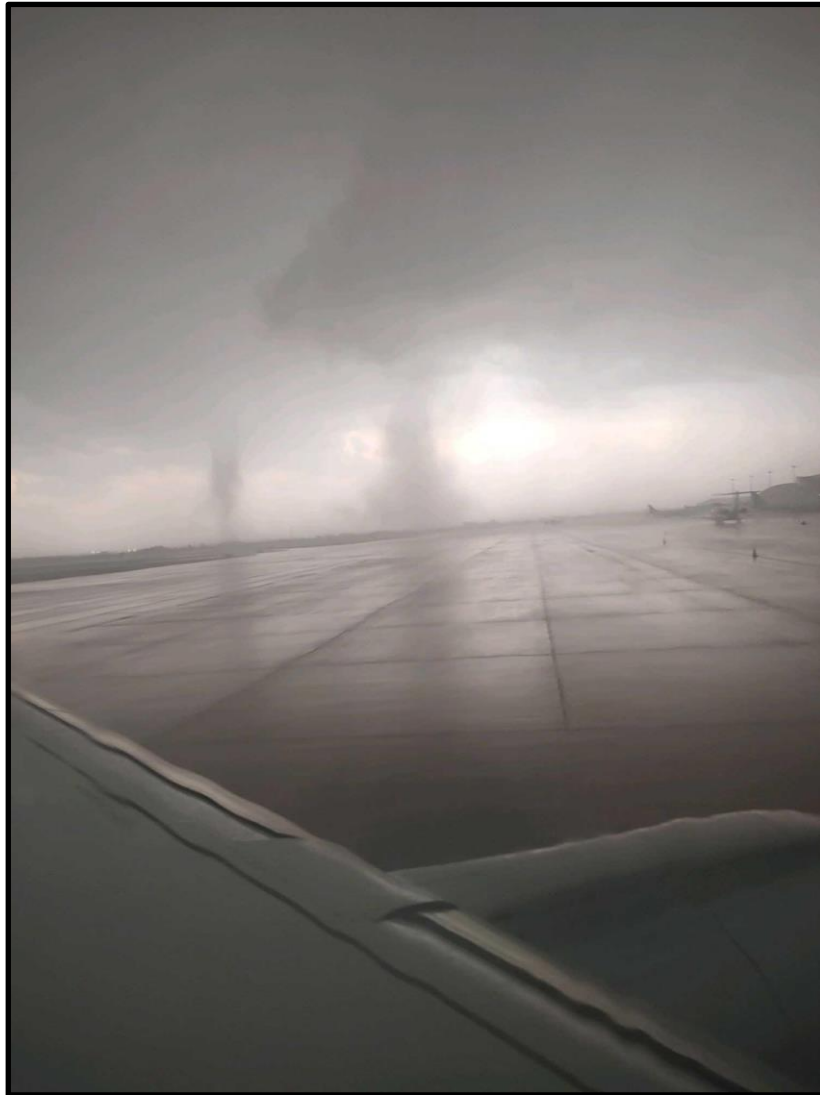
During the afternoon and evening hours on Thursday, May 30, 2024, numerous severe thunderstorms developed across portions of the Permian Basin and Lower Trans Pecos. Throughout the event, several of these thunderstorms produced very large hail, damaging straight-line winds, flash flooding, and multiple tornadoes. On May 31st, the National Weather Service conducted a storm-damage survey to document the impacts from these storms. A brief overview of the event and the survey results can be found below.

Midland/Upton County Severe Weather and Tornadoes

A dryline across the western Permian Basin and an outflow boundary, produced from a line of thunderstorms across central Texas, were the main catalysts for this destructive thunderstorm. The intersection of these two boundaries just west of the metropolitan area led to rapid thunderstorm development by mid-afternoon. One thunderstorm in particular quickly strengthened over the Gardendale, TX area, producing baseball to softball size hail.

As the storm slowly approached Midland International Air and Space Port, a large and rotating wall cloud was observed by travelers at the airport and the National Weather Service forecasters. Shortly thereafter, as the thunderstorm approached I-20, a dusty tornado was observed by many. The tornado slowly moved southeast causing minor damage to buildings and power poles. At this time, a second smaller tornado formed a short distance to the east over an open field. This second tornado was fairly brief and did not produce any observed damage. It was later rated EF-Unknown by the survey team. As the main tornado crossed south of I-20 it began to grow and strengthen, snapping power poles and flipping travel trailers. In addition, this storm produced strong, straight-line winds near Midland International Air and Space Port, snapping power poles along FM 1788. The tornado likely continued to strengthen and grow in size as it moved

south of Midland but there were very limited damage indicators in the path of the tornado at this time. The straight-line winds continued to move around the west side of the tornado, flipping a manufactured home, and injuring two people. The tornado would continue to drift to the south before dissipating north of Pleasant Farms. Based on the observed damage, this tornado was rated an EF-2, with wind speeds of up to 115 MPH. In addition to strong wind and tornadoes, this storm also produced very large hail, up to baseball size, impacting areas near the National Weather Service office and the Legends Park Subdivision for 30 minutes to an hour. This caused extensive damage to vehicles and buildings.



Two tornadoes formed south of Midland from the airport Tarmac. Photo Courtesy of Victor M.

This thunderstorm weakened slightly as it finally moved south of the Midland/Odessa area over an hour later. A record 1.60 inches of rain was measured at Midland International Air and Space Port for the day. This very heavy rainfall led to flash flooding of many roads in the area and a few of these roads became temporarily impassable.

As the storm continued to move to the south, it re-intensified near the Midland/Upton County line, producing another tornado over generally rural areas. This tornado overturned a pumpjack, snapped power poles, resulted in some ground scouring, and debarked trees as it slowly tracked to the west for approximately 15 minutes, before dissipating. Given the damage observed by the NWS survey team, this tornado was rated a low-end EF-3 with wind speeds of up to 140 MPH.



Tornado and parent thunderstorm near Midland/Upton County line. Photo Courtesy of Simon Brewer and Juston Drake.

Pecos County Tornado and Terrell County Very Large Hail

Farther to the south, another thunderstorm would track near Highway 285 in southern Pecos County. This thunderstorm was photographed and video-recorded by some travelers along this highway as it produced a tornado to the west of the road over open terrain. Thankfully, this area is remote and the lack of damage resulted in the tornado being rated EF-Unknown. This thunderstorm continued south, moving just east of Sanderson, and produced large hail greater than golf ball size as it crossed US Highway 90 and into Mexico.



Stovewipe tornado in rural Pecos County. Photo courtesy of Jubal Lane.

Gaines and Dawson County Very Large Hail

To the north, a separate group of supercell thunderstorms produced very large hail across portions of Gaines and Dawson Counties, largely between the towns of Seagraves and Seminole. This hail was greater than baseball size at times. This hail largely fell over rural portions of the county but broken windshields were reported along local roads. These thunderstorms gradually weakened and dissipated before moving south of US Highway 180.



Larger than 3-inch diameter hail south of Midland. Photo courtesy of Jordan Hall.

Thank you to Jamie Jewett, with the Midland County Office of Emergency Management, for her help in conducting this damage survey.