June 14, 2017 Odessa, Texas Wind and Hail Event:

During the early evening of June 14, 2017 severe thunderstorms developed along the dry line and moved across Odessa and into Midland, Texas. These thunderstorms were not Supercells, instead they were extremely strong multicellular thunderstorms with tops exceeding 60,000 feet. National Weather Service Meteorologists conducted a storm survey on June 15, 2017 (Figure 1).

Odessa-Schlemeyer Field METAR reported wind gusts to 64 mph from 6:50 PM CDT through 6:55 pm CDT. Midland Airpark METAR reported a wind gust to 58 mph at 7:35 pm CDT. The thunderstorms began to weaken as they moved into the City of Midland. Radar imagery from WFO Midland shows the progression of the severe thunderstorms as they moved northeast over the area (Figures 2-5).

The storm survey noted damage across a wide area of Odessa and West Odessa. There were reports of damage to buildings at the University of Texas Permian Basin. Figure 6 shows power polls snapped (16 were snapped) along W 16th Street in West Odessa. This was likely caused by a microburst with estimated wind speeds of 100 mph. There were numerous reports of baseball size (2.75 inches) or larger hail (Figures 7 and 8); and the storm survey found evidence of hail possibly larger than softball size (4.50 inches). Figure 9 shows the La Quinta hotel near Faudree Road and Highway 191 with nearly every west facing window broken by hail. Figure 10 shows roof damage from hail at the Odessa Country Club. Figure 11 shows hail damage to a vehicle at the Dorado Ranch Apartments near Faudree Road. Figure 12 shows hail damage to a house in central Odessa near E 42nd Street. Figure 13 shows hail damage to the Sherwood Baptist Church in central Odessa near E 42nd Street. Figure 14 shows a tree uprooted in central Odessa near E 42nd Street.

In summary, the National Weather Service storm survey found evidence of a possible microburst in West Odessa with wind speeds estimated at 100 mph. There was also evidence of very large hail, possibly bigger than softball size in places across a wide area of Odessa.
Figure 1 – Map of Storm Survey with survey points in Odessa, Texas.
Figure 2 – Base reflectivity imagery at 6:36 pm CDT.

Figure 3 – Base velocity imagery at 6:41 pm CDT with winds greater than 70 mph over West Odessa, Texas.
Figure 4 – Base reflectivity imagery at 6:46 pm CDT.

Figure 5 – Base velocity imagery at 6:46 pm CDT.
Figure 6 – Power polls snapped along W 16th Street in West Odessa, Texas.

Figure 7 – Softball size hail at Mission Dorado in Odessa, Texas (Courtesy of Joie Belt).
Figure 8 – Softball size hail in Odessa, Texas (Courtesy of Virginia Chisum).
Figure 9 – Broken windows from hail at the La Quinta hotel near Faudree Road and Highway 191 in Odessa, Texas.
Figure 10 – Roof damage from hail at the Odessa Country Club in Odessa, Texas.
Figure 11 – Hail damage to vehicle at Dorado Ranch Apartments in Odessa, Texas.
Figure 12 – Hail damage to a house near E 42nd Street in central Odessa, Texas.
Figure 13 – Hail damage at Sherwood Baptist Church near E 42nd Street in central Odessa, Texas.
Figure 14 – Tree uprooted near E 42nd Street in central Odessa, Texas.