

June 22nd- 23rd, 2020 Midland and Snyder Texas Straight-Line Wind Events

Midland, TX Snapped Powerline Poles

On the evening of June 22nd, a line of thunderstorms developed along two intersecting outflow boundaries in Andrews and Ector Counties. The line quickly progressed eastward and picked up speed as it moved into Midland County and over Midland International Air and Space Port (MAF). At 10:44 PM CDT, a 60mph wind gust was reported at MAF. The storms continued to push eastward, reaching the west side of Midland between 10:45-10:50 PM CDT. Heavy precipitation is denoted by the red and purple shaded areas in radar reflectivity (Figure 1). A pocket of strong outbound winds, indicated by the darker red shades in base velocity (figure 2), led to a localized area of damage near West Loop 250 and Andrews Highway just outside the Grasslands Estates neighborhood. Six powerline poles snapped near their base and toppled over causing most of the neighborhood to lose power (Figure 3). This damage was indicative of powerful straight-line winds estimated to be up to 70 mph. As the storm continued through Midland, winds up to 60 mph were still possible, but no other major damage was reported.

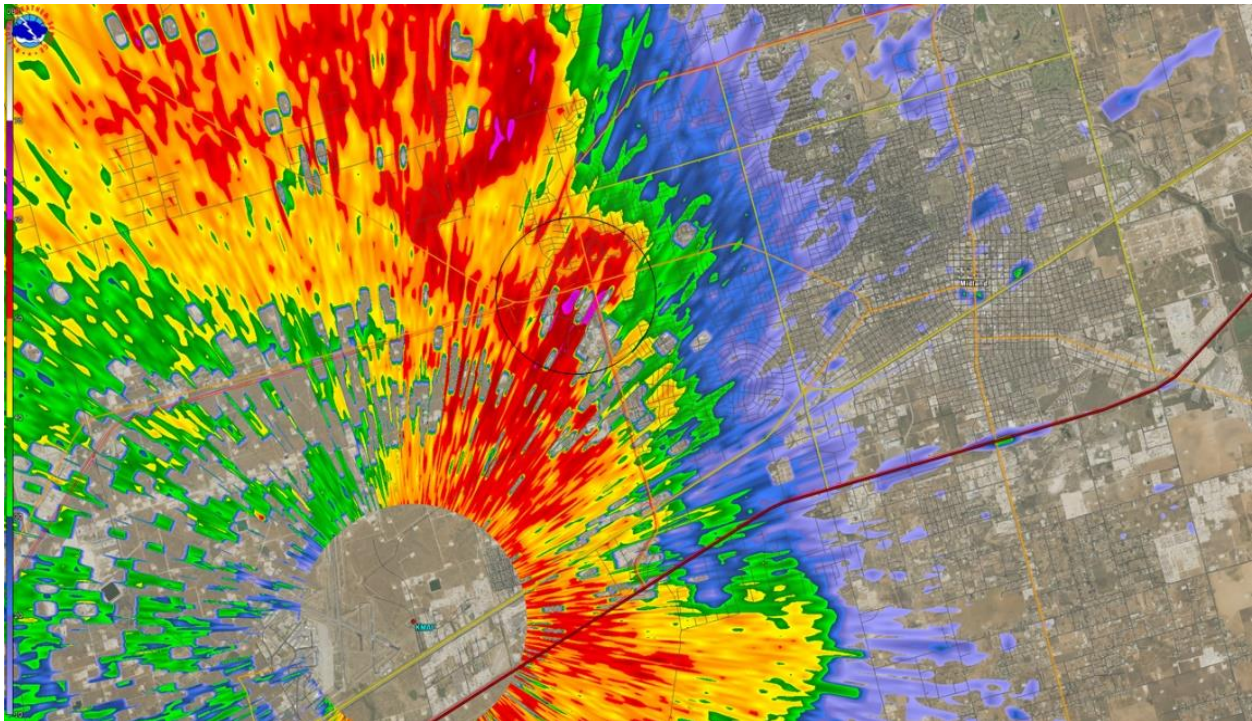


Figure 1. KMAF 0.5 deg Z at 10:46 PM CDT, June 22nd. Highest reflectivity values are shown over the location of damaged powerline poles.

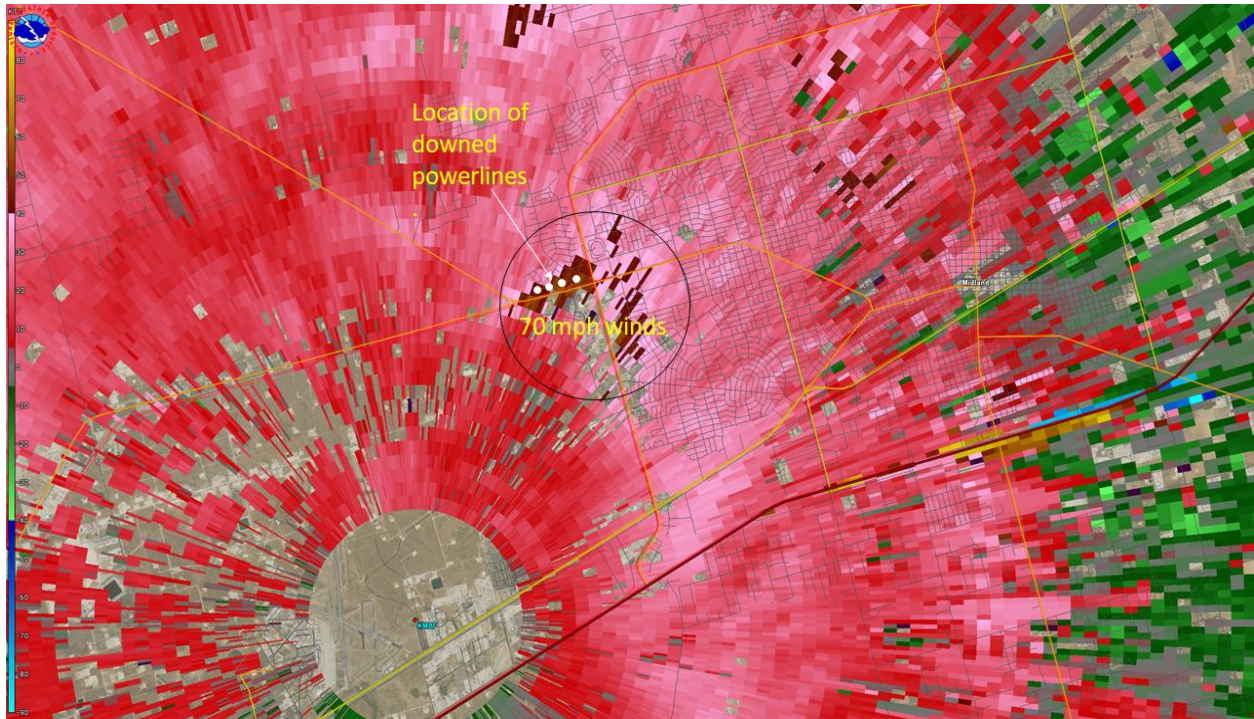


Figure 2. KMAF 0.5 deg V at 10:46 PM CDT, June 22nd. The red and pink colors indicate winds moving away from the radar site. Wind speeds up to 70 mph are indicated by the darker red colors in the circled area.



Figure 3. Wood powerline poles snapped at their base and leaning over along the westbound frontage road of Andrews Highway.

Snyder, TX Damaged Radio Tower

Around 2:00 AM CDT on June 23rd, multiple thunderstorms formed along an outflow boundary in northern Scurry County and moved south over the city of Snyder, TX. One storm strengthened over the east side of the city as noted by the higher radar reflectivity (Figure 4). A West Texas Mesonet recorded a 72 mph wind gust at 2:10 AM CDT. At around the same time, a 100 ft radio tower located at the intersection of Ave B and 24th St was blown over by the strong winds. The tower appeared to break near the base where it was connected by several bolts (Figure 5). This damage was determined by local emergency management to be caused by straight-line with wind speeds estimated between 70-75 mph. Special thanks to Nathan Hines, Deputy EMC with the Snyder Fire Department, for conducting this damage survey.

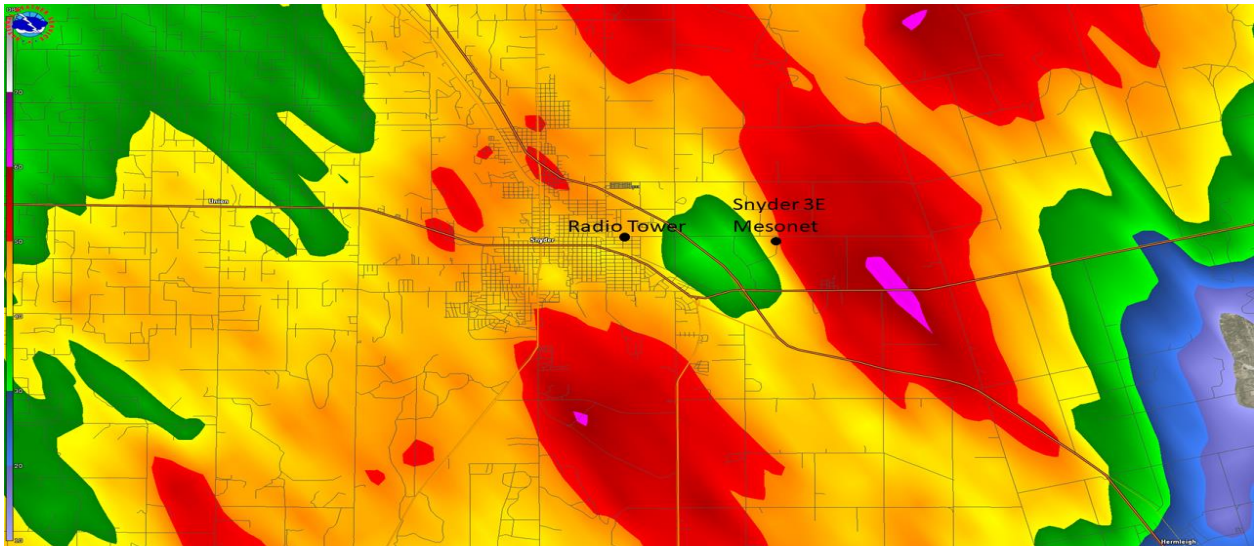


Figure 4. KMAF 0.5 deg Z at 2:11AM CDT, June 23rd. Highest reflectivity values are depicted over the Snyder 3E Mesonet where a 72 mph wind gust occurred.



Photo credit: Nathan Hines

Figure 5. 100 ft tall radio tower in Snyder, TX broken near its base due to strong straight-line winds.