

## Scurry County Damage Survey Results

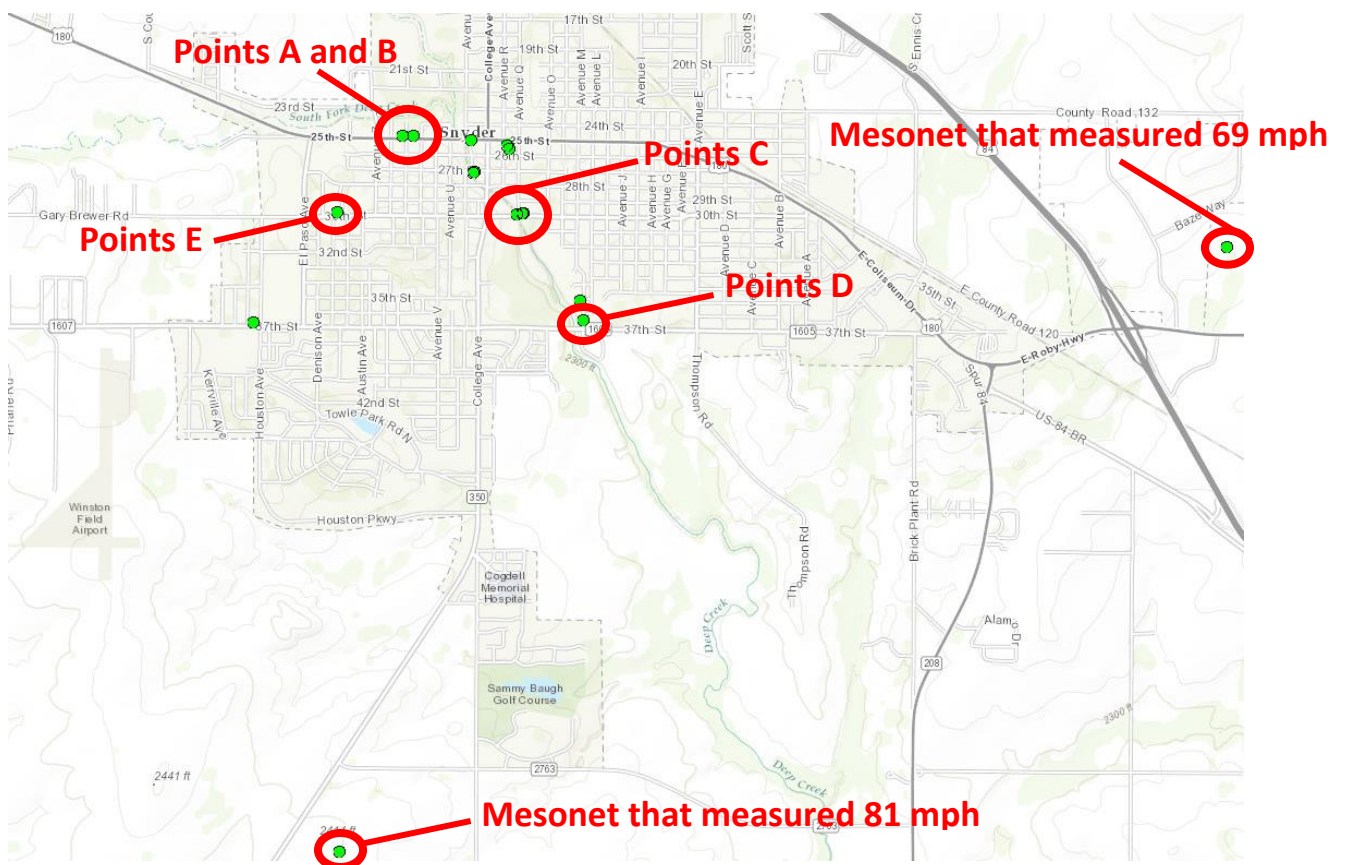
On September 17, 2016, the National Weather Service in Midland conducted a damage survey for a downburst associated with a severe thunderstorm that impacted Snyder on the evening of September 16...

A broad upper trough took shape over the western US by Friday, 16 September 2016, with modest west to southwest flow aloft situated over New Mexico. A shortwave passing overhead during the afternoon hours provided some upper support for convective development. Meanwhile, at the surface, ample moisture and increasing afternoon temperatures resulted in fairly modest instability across southeastern New Mexico and West Texas. A weak front pushed south into the northern Permian Basin around 4 pm CDT, aided by the outflow from thunderstorms over the Texas Panhandle. This low level focus, combined with upper lift and modest instability, fostered the development of thunderstorms over northern Dawson and Borden counties. A supercell developed (Figure 1) in this regime and moved east and southeasterly across northern Borden and Scurry counties through 7 pm CDT.



**Figure 1 – Severe thunderstorm approaching Snyder (Courtesy of Carson Matthies).**

Widespread wind damage occurred from this storm as it moved over Snyder, and also produced up to golf ball size hail. The Texas Tech (TTU) West Texas Mesonet site located 3 miles south-southwest of Snyder recorded an 81 mph wind gust at 501 pm CDT, while the TTU West Texas Mesonet site located 3 miles east of Snyder recorded a 69 mph wind gust at 505 pm CDT. The storm survey noted widespread damage in the city of Snyder, TX with the greatest concentration near downtown and spreading across the southern and western portions of the city. In these areas, there was damage to wood telephone poles and trees as well as heavy roof and carport damage that would suggest wind speeds ranging from 75-85 mph. The figures below show points of damage followed by picture of damage taken during the survey. Other areas of the city also had some damage to a lesser extent (tree branches, etc.) but would still suggest wind speeds near 60-70 mph.





Point A (SE Corner of block at Hwy 180 & Ave X)



Point A (SE Corner of block at Hwy 180 & Ave X)



Point B (Along Hwy 180 between Ave X and Ave W; just east of Point A)



Point B (Along Hwy 180 between Ave X and Ave W; just east of Point A)

### **Points A and B**

**Roof of business (Point A) was lifted and parts of the building were thrown to the southeast on Hwy 180 which also took out some power poles across the street.**

**Parts of the roof seen on the ground shown (Point B) was moved off Hwy 180. A carport seen in the image behind parts of the roof was damaged as well.**



Point C (Along 30<sup>th</sup> St at the intersection of Avenue Q

**Point C:** Wind peeled back parts of the roof and severe northwest winds blew parts of the roof to the southeast across the street into the field.



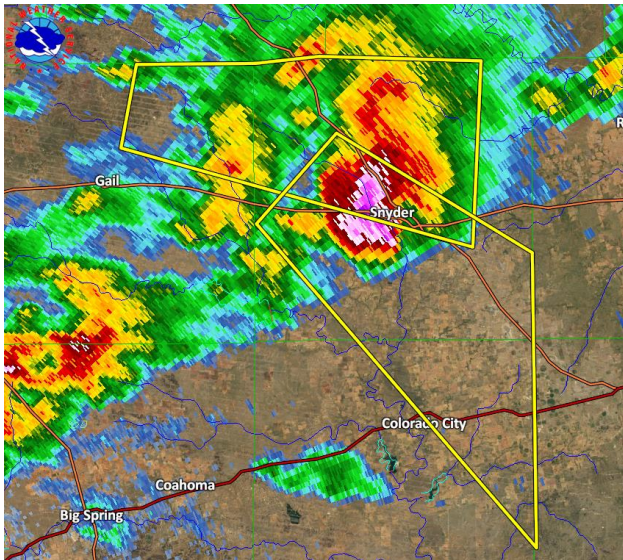
Point D (Along 37<sup>th</sup> St at the intersection of Avenue M)

**Point D:** Winds damaged part of structure with opening facing to the northwest. Parts of the structure were blown to the southeast.

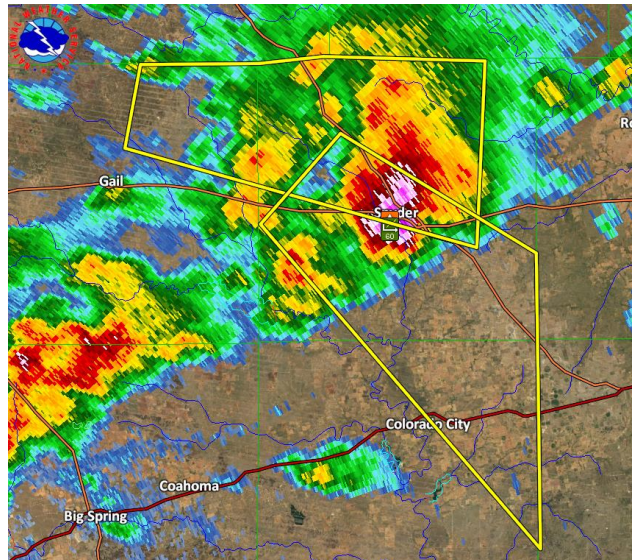


Point E (left)  
(Along 37<sup>th</sup> St at the intersection of Avenue M)

**Point E:** Large tree blow over to the SE.  
Owner mentioned that parts of the tree's base were either dying or dead.



**Radar image at 4:51 PM CDT**



**Radar image at 4:56 PM CDT**

In conclusion, the damage was determined to be caused by straight-line winds from a strong downburst associated with the severe thunderstorm.

Special thanks to Perry Westmoreland, Scurry County Emergency Manager, for assisting with this damage survey and photos of the storm provided by Carson Matthies.