

May 21, 2016 Seminole, Texas Supercell:

National Weather Service Meteorologists conducted a storm survey for a severe thunderstorm that affected the western portions of Seminole, Texas as well as the rural area further west in Gaines County, around 7:00 pm CDT on May 21, 2016 (Figure 1).

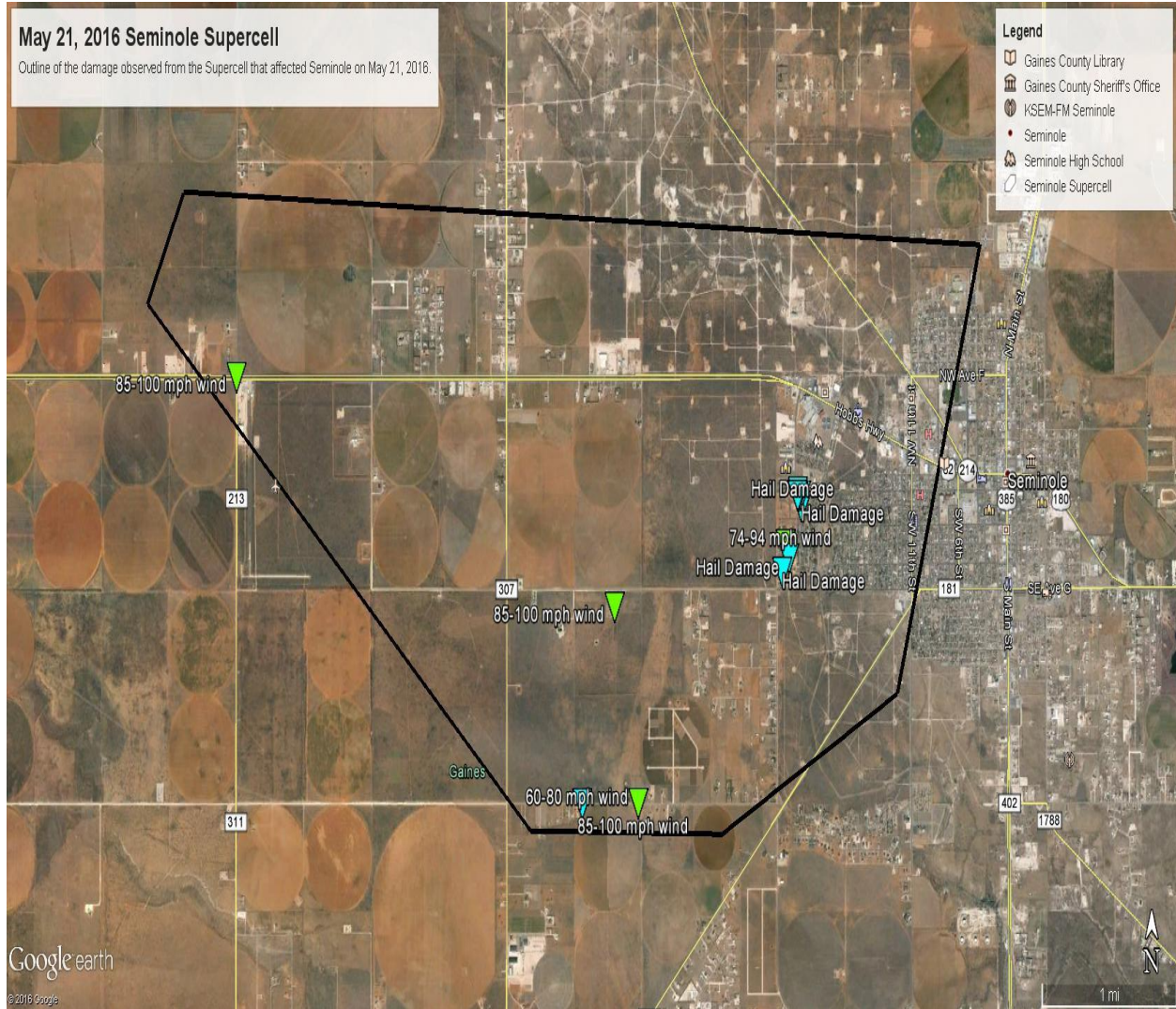


Figure 1 – Map of damage.

Radar imagery from KMAF shows the progression of the supercell as it moved thru Seminole, Texas (Figures 2 and 3).

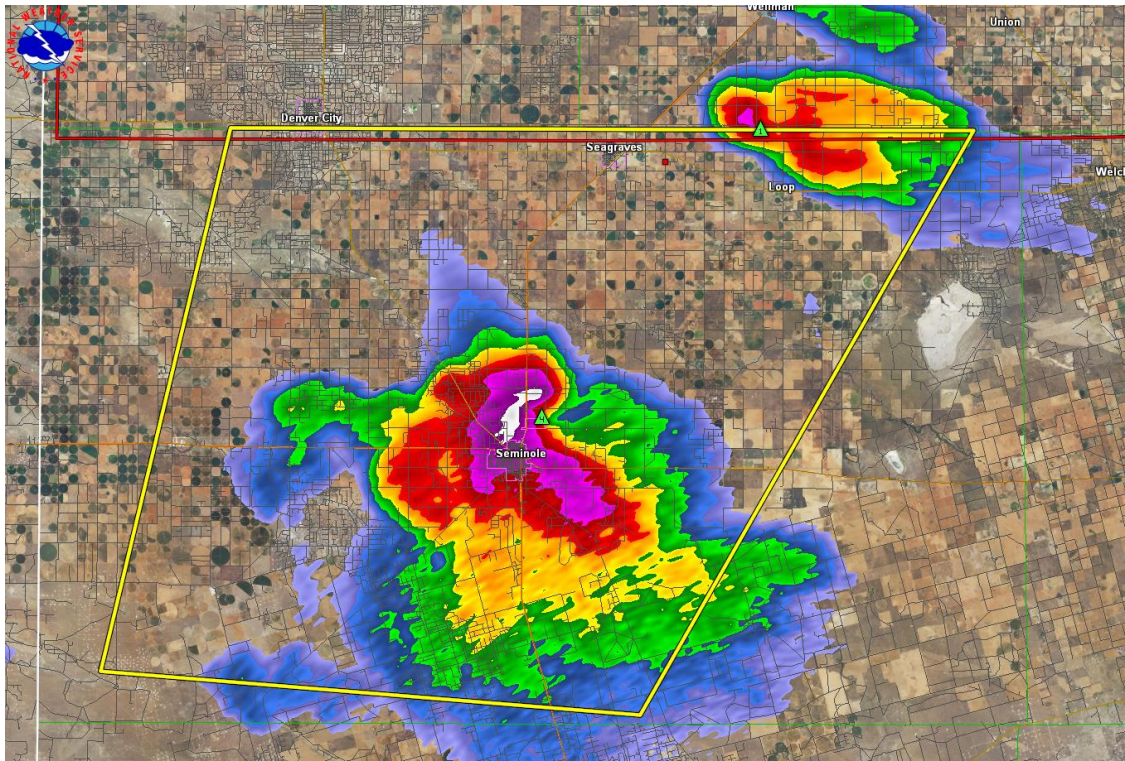


Figure 2 – Radar imagery at 6:55 pm CDT.

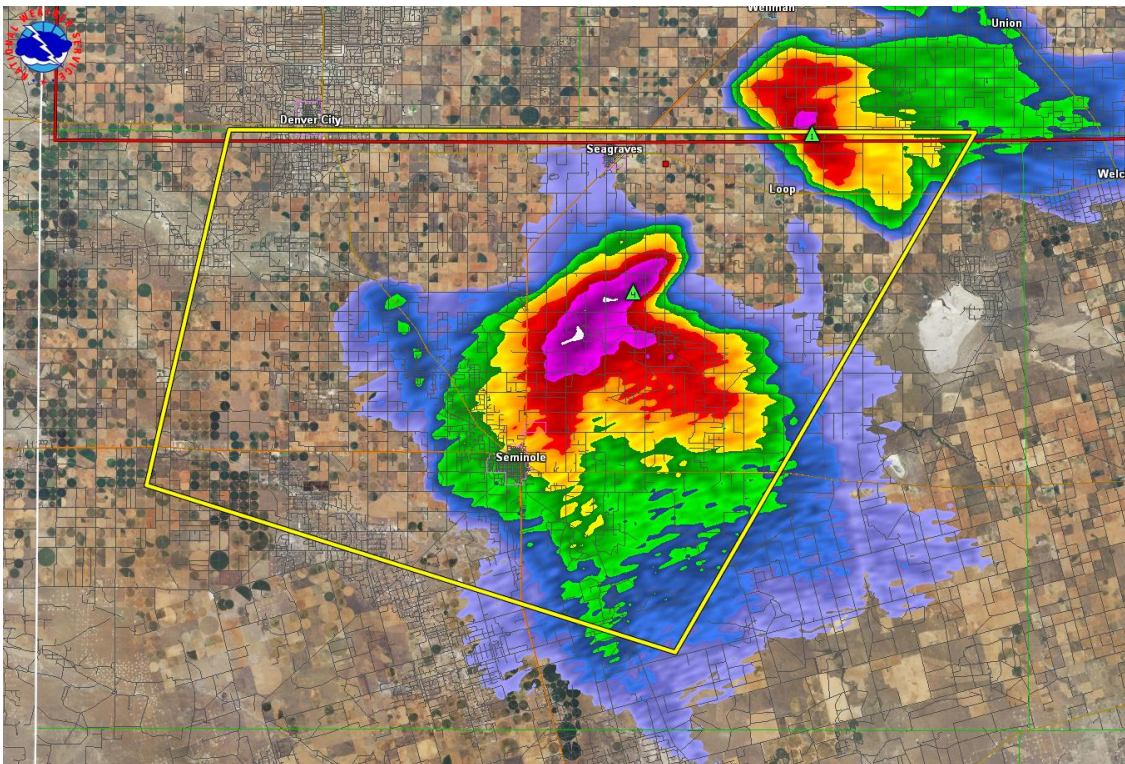


Figure 3 - Radar imagery at 7:19 pm CDT.

Whereas there was some wind damage, the majority of the damage in the western portions of Seminole was from large hail; golf ball to tennis ball size (Figures 4-7), as the core of the supercell moved over the western portions of the city.



Figure 4 – Golf Ball size hail in Seminole, Texas (Courtesy of Liz Acosta).



Figure 5 – Tennis Ball size hail in Seminole, Texas (Courtesy of Aaron Ward).



Figure 6 – Hail damage in the west part of Seminole, Texas (Courtesy of Mark Strobin).



Figure 7 – Hail damage in the west part of Seminole, Texas (Courtesy of Mark Strobin).

The majority of the damage in the rural area in Gaines County west of Seminole, Texas was from straight line winds (Figures 8 and 9).



Figure 8 – Wind damage west of Seminole, Texas (Courtesy of Mark Strobin).



Figure 9 – Wind damage west of Seminole, Texas (Courtesy of Mark Strobin).

To determine the wind speed needed to cause this degree of damage, National Weather Service Meteorologists utilized Damage Indicators. These included:

- Barn with roof uplifted – 90 mph
- Large branches broken – uprooted trees (74-94 mph).

The wind damage was most likely due to localized downbursts from the supercell. Based on the damage seen and the Damage Indicators the top wind speed was estimated to be up to 100 mph.