

June 30, 2015 Midland/Odessa MCS:

During the early morning hours of June 30, 2015 a Mesoscale Convective System (MCS) moved across the Permian Basin of West Texas. An MCS is a collection of thunderstorms that act as a system. An MCS can spread across an entire state and can last more than 12 hours.

The origin of the MCS that moved across the Permian Basin was in Oklahoma. During the early evening hours of June 29, 2015 thunderstorms developed in southwest Oklahoma between Elk City, OK and Oklahoma City, OK (Figure 1).

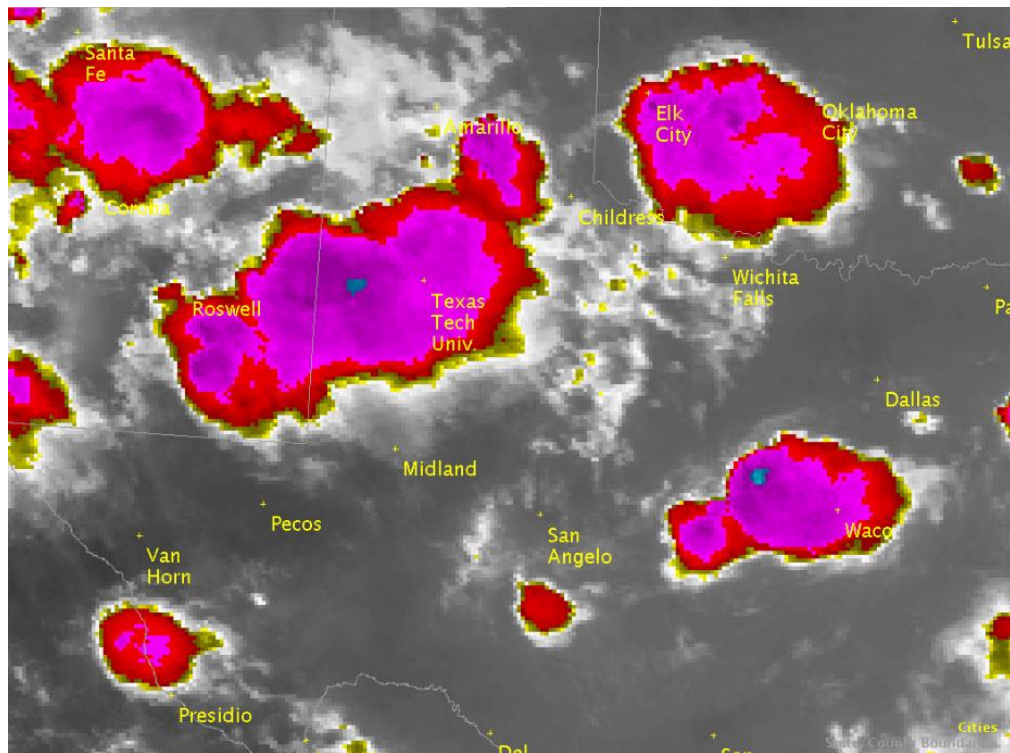


Figure 1: Infrared Satellite Imagery on June 29, 2015 at 7:00 PM CDT.

These thunderstorms became an MCS and moved southwest into Texas, reaching the Permian Basin by 4:00 AM CDT (Figure 2). Radar imagery at 5:04 AM CDT shows the MCS as it moved southwest across the Permian Basin (Figure 3).

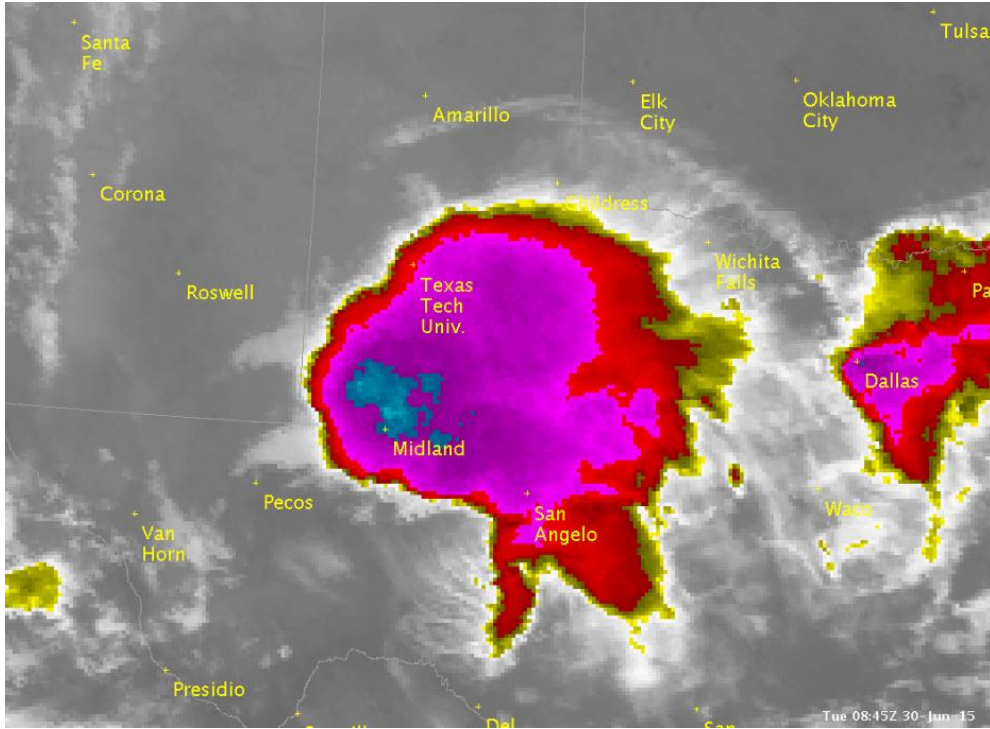


Figure 2: Infrared Satellite Imagery on June 30, 2015 at 4:00 AM CDT.

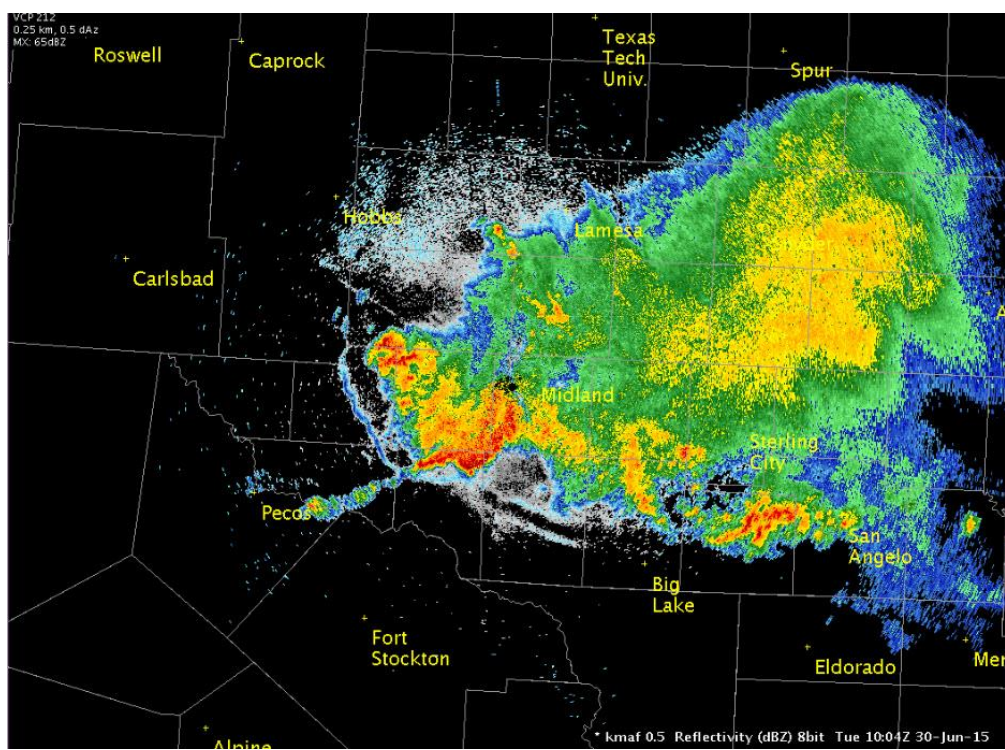


Figure 3: Radar imagery at 5:04 AM CDT.

The MCS brought extremely heavy rain and very strong winds to the Permian Basin. Midland International Air and Space Port (KMAF) received 1.94" of rain with most of it (1.62") falling between 4:30 AM CDT and 5:00 AM CDT. The 1.94" of rain measured shattered the old daily record of 0.87" which occurred on June 30, 1941. Average June rainfall at KMAF is 1.80", meaning KMAF measured 0.14" over its monthly average rainfall in a span of five hours (between 3:00 AM CDT and 8:00 AM CDT). This made June, 2015 the fifth wettest June on record at KMAF since records began in 1930. At 4:28 AM CDT Odessa-Schlemeyer Field reported a wind gust to 75 mph.

A damage survey was conducted by NWS Midland Meteorologists and the Ector County, Texas Emergency Management Coordinator. There were several businesses that had broken windows from the strong winds and the Ector County Courthouse had numerous ceiling tiles displaced (Figures 4-6).

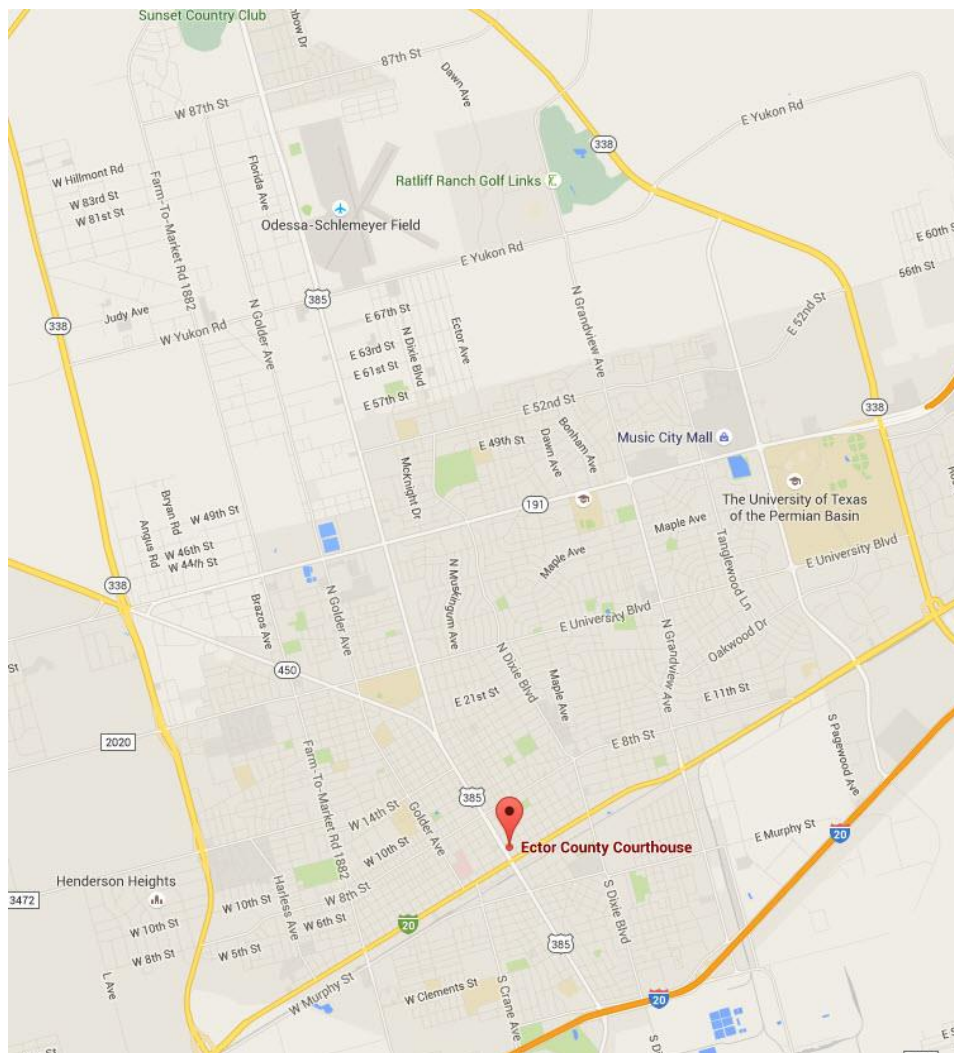


Figure 4: Map of Odessa, Texas.



Figure 5: Ector County, Texas Courthouse with missing ceiling tiles.



Figure 6: Ector County, Texas Courthouse with missing ceiling tiles.