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Mesoscale Discussion 651 < Previous MD Next MD > Supercell development possible over the next hour or so. All severe hazards possible and Tornado Watch will be issued soon. SPC MCD #0651

News

Mesoscale Discussion 0651 NWS Storm Prediction Center Norman OK 0211 PM CDT Mon May 17 2021

Areas affected...Southeast/East-Central NM...TX South Plains...TX Permian Basin

Concerning...Severe potential...Tornado Watch likely

Valid 171911Z - 172115Z

Probability of Watch Issuance...95 percent

SUMMARY...Thunderstorm initiation is anticipated with the next hour or two across far southeast NM/far southwestern TX Panhandle/western Permian Basin. Supercells capable of all severe hazards are possible and a Tornado Watch will be issued to cover the severe threat.

DISCUSSION... Recent surface analysis places a low over about 45 miles northwest of ROW. A dryline extends southeastward from this low through much of southeast NM before arcing back more southward across the TX Trans Pecos. Northward returning low-level moisture also results in an effective warm front, which extends from the surface low northeastward through De Baca County NM and then back southeastward through the TX South Plains. Deepen cumulus has been observed within the area between these two boundaries, with a few orphan anvils recently noted.

Expectation is for eventual convective initiation along the dryline as it continues eastward/northeastward. Air mass across the region has become moderately unstable, with mesoanalysis estimating 1000 to 1500 J/kg of MLCAPE is in place with little to no convective inhibition. Effective deep layer shear is currently around 30 to 40 kt, with a gradual increase anticipated over the next few hours as the shortwave trough moves through.

Overall environment supports initial supercells capable of all severe hazards, including very large hail (i.e. greater than 2" in diameter) and tornadoes. Some upscale growth is anticipated over time, which will result in a transition to strong wind gusts as the primary severe threat.

..Mosier/Guyer.. 05/17/2021

...Please see www.spc.noaa.gov for graphic product...

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