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Mesoscale Discussion 684

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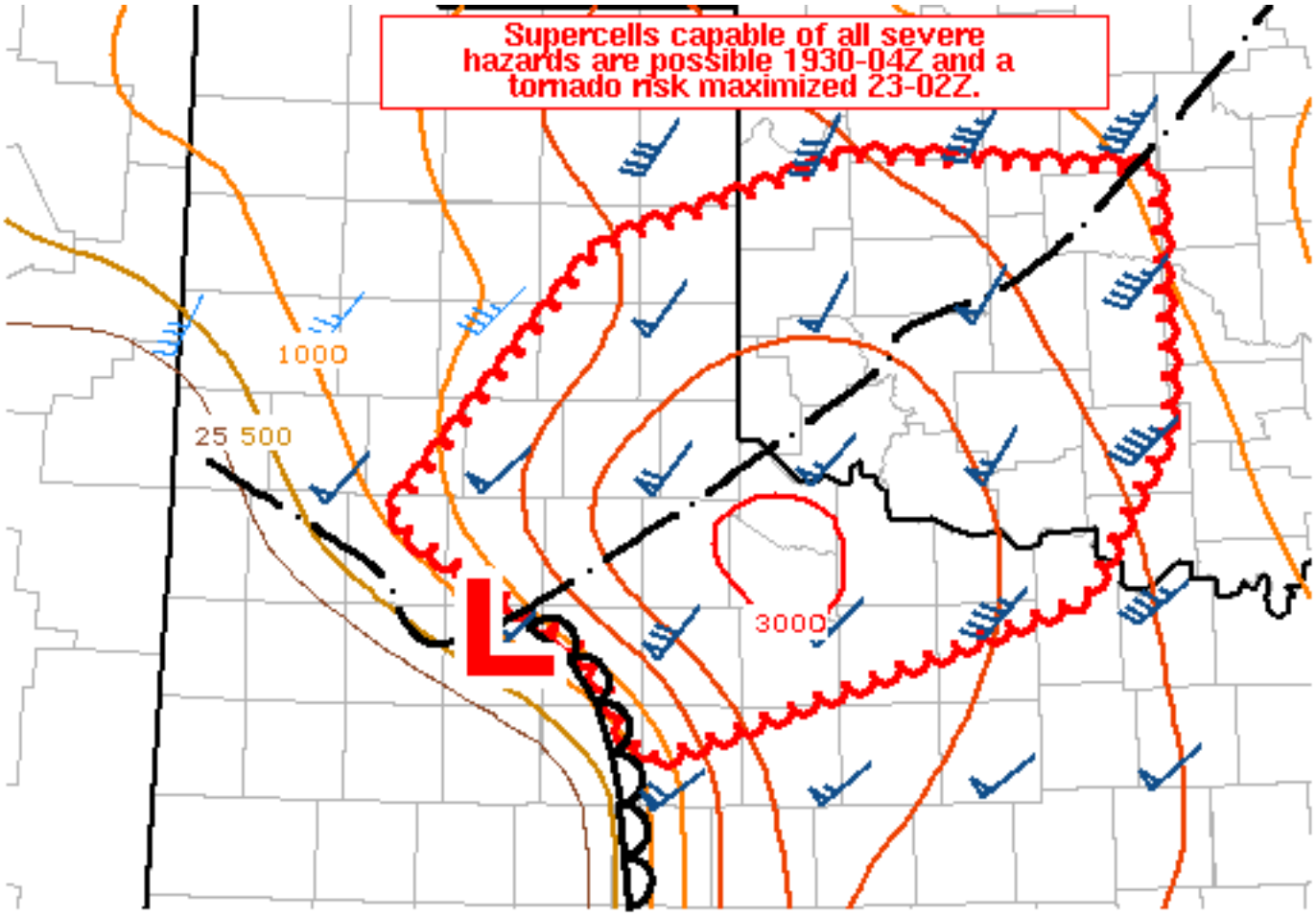

SPC MCD #0684

Mesoscale Discussion 0684
NWS Storm Prediction Center Norman OK
0214 PM CDT Wed May 10 2017

Areas affected...portions of the TX Low Rolling Plains...southeast TX Panhandle...southwest and west-central OK

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

Valid 101914Z - 102015Z

Probability of Watch Issuance...80 percent

SUMMARY...Convective initiation is expected initially near a triple point near the Caprock 50 miles northeast of Lubbock. Additional storms are forecast to develop and intensify to severe levels. Large to very large hail will be possible with the discrete supercells. A tornado risk will probably maximize during the 23-02Z period.

DISCUSSION...Latest radar/satellite imagery indicates initial storm

development is occurring near a triple point 50 miles northeast of Lubbock on the Caprock. Subjective surface analysis delineates an outflow boundary from the triple point northeast through southwest OK. A bulging dryline extends south into the Pecos River Valley. A reservoir of 64-69 degrees F dewpoints resides east of the dryline and south of the outflow boundary. Heating into the middle 80s southwest to the upper 70s farther northeast into parts of central OK will result in 2500-3000 J/kg MLCAPE and a very unstable boundary layer. Strong southwesterly mid- to high-level flow associated with an approaching upper jet streak will strongly favor supercells (some supercell splitting expected) atop generally modest low-level shear.

Very large CAPE in the hail growth layer (-10 to -30 degrees C) and ample lofting of hydrometeors imply very large to giant hail (2-3.5 inches in diameter) is possible with the most intense supercells. The risk for a tornado will probably be most favorable in a corridor near the modifying outflow boundary. A strengthening in low-level flow is expected towards the early evening and a corresponding enlargement in the hodograph is forecast (0-1 km SRH 100-200 m2/s2) from a minimum in hodograph size around 21Z.

Short-term models suggest isolated to widely scattered supercells evolving and moving northeast into southwest OK from northwest TX. Additional more isolated activity is possible farther northeast along the outflow boundary in OK per models.

..Smith/Guyer.. 05/10/2017

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

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