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Storm Reports

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About Tornadoes

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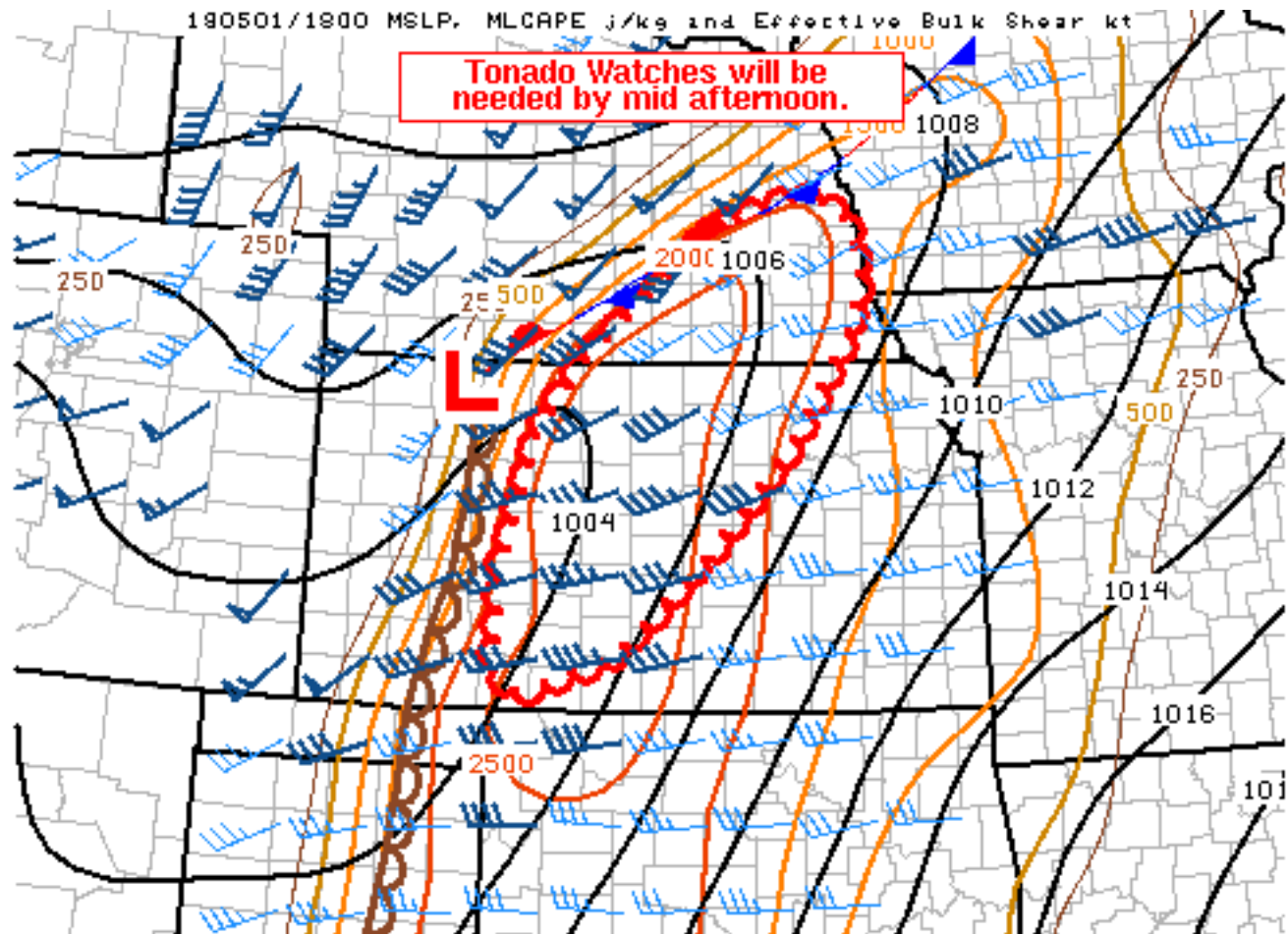
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Mesoscale Discussion 304

< Previous MD

Next MD >



SPC MCD #0304

Mesoscale Discussion 0304

NWS Storm Prediction Center Norman OK

0110 PM CDT Tue May 01 2018

Areas affected...Central KS into southeast NE

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

Valid 011810Z - 012045Z

Probability of Watch Issuance...95 percent

SUMMARY...One or two tornado watches will be needed by mid-afternoon (20-21Z) across central Kansas into southeast Nebraska.

DISCUSSION...Surface mesoanalyses this afternoon showed an area of low pressure located in northwest KS, while the equatorward-trailing dryline was continuing to shift east through southwest KS. DDC radar imagery showed this boundary located between KGCK and KDDC at 1740Z and into central portions of the OK and TX Panhandles. Clearing skies per visible satellite imagery have allowed for



stronger surface heating across the warm sector where the environment continues to moisten per southerly low-level winds. These changes in boundary-layer thermodynamics (reduction in inhibition) have allowed cumulus clouds to develop along the KS portion of the dryline into adjacent part of the OK Panhandle, as the environment further destabilizes (mixed-layer CAPE is already up to 2500 J/kg).

Deeper moist convection is expected by 20-21Z along the KS dryline as stronger ascent within the exit region of southwesterly mid- and upper-level jets shift into the central Plains this afternoon and evening. Trends in the operational HRRR continue to suggest storm development along the KS portion of the dryline by 21Z, with some potential for initiation by around 20Z. Further low-level moistening and increasing vertically veering winds will support supercell development with an attendant threat for all severe hazards. Initial storms will be capable of producing very large hail, while a tornado threat (some strong) will increase, given a strengthening southerly low-level jet resulting in increased hodograph curvature this evening.

..Peters/Grams.. 05/01/2018

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

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