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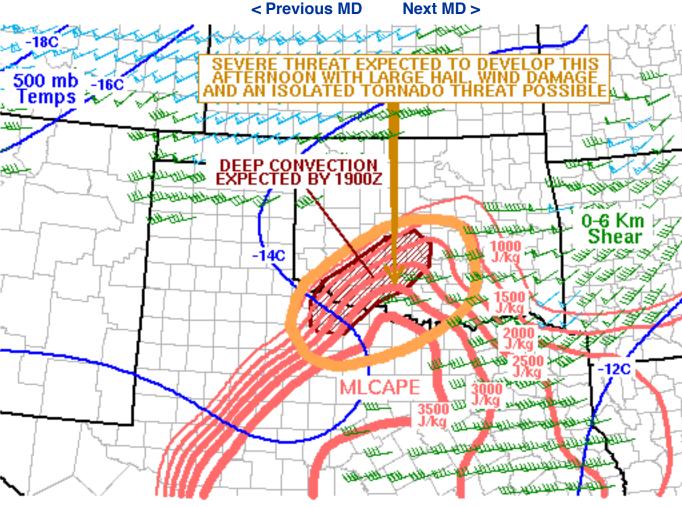
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SPC MCD #0493

Mesoscale Discussion 0493 NWS Storm Prediction Center Norman OK 1221 PM CDT Wed May 01 2019

Areas affected...South-central and Southwest Oklahoma...Northwest Texas

Concerning...Severe potential...Watch likely

Valid 011721Z - 011915Z

Probability of Watch Issuance...80 percent

SUMMARY...A severe threat is expected to develop across parts of northwest Texas into southwest and central Oklahoma this afternoon. Large hail, wind damage and an isolated tornado threat will be possible with the stronger thunderstorms. Weather watch issuance will likely be needed over the next 1 to 2 hours.

DISCUSSION...Latest surface analysis shows a quasi-stationary front located from west of Wichita Falls, TX northeastward to the Oklahoma



City Metro. Surface dewpoints to the southeast of the front range from the mid 60s to the lower 70s F. The airmass is characterized by moderate instability with MLCAPE of 2000-3000 J/kg. The pristine airmass has been capped for much of the morning but this cap is showing signs of weakening according to the RAP. Radar shows convection percolating across southwest Oklahoma where some towering cumulus has attempted to develop. The current thinking is that low-level convergence will continue to become enhanced along the boundary over the next hour, allowing for convective initiation. Although there is still uncertainty as to how long it will take deep convection to become rooted, it appears that the most probable time-frame for a severe threat to develop would be between 18Z and 19Z. In addition to the moderate instability, the Oklahoma City WSR-88D VWP shows about 50 kt of 0-6 km shear. This combined with low to mid-level lapse rates near 8.0 C/km will be favorable for supercells with large hail. A threat for isolated wind damage and a brief tornado will be possible.

..Broyles/Hart.. 05/01/2019

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

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