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**Mesoscale Discussion 482**  
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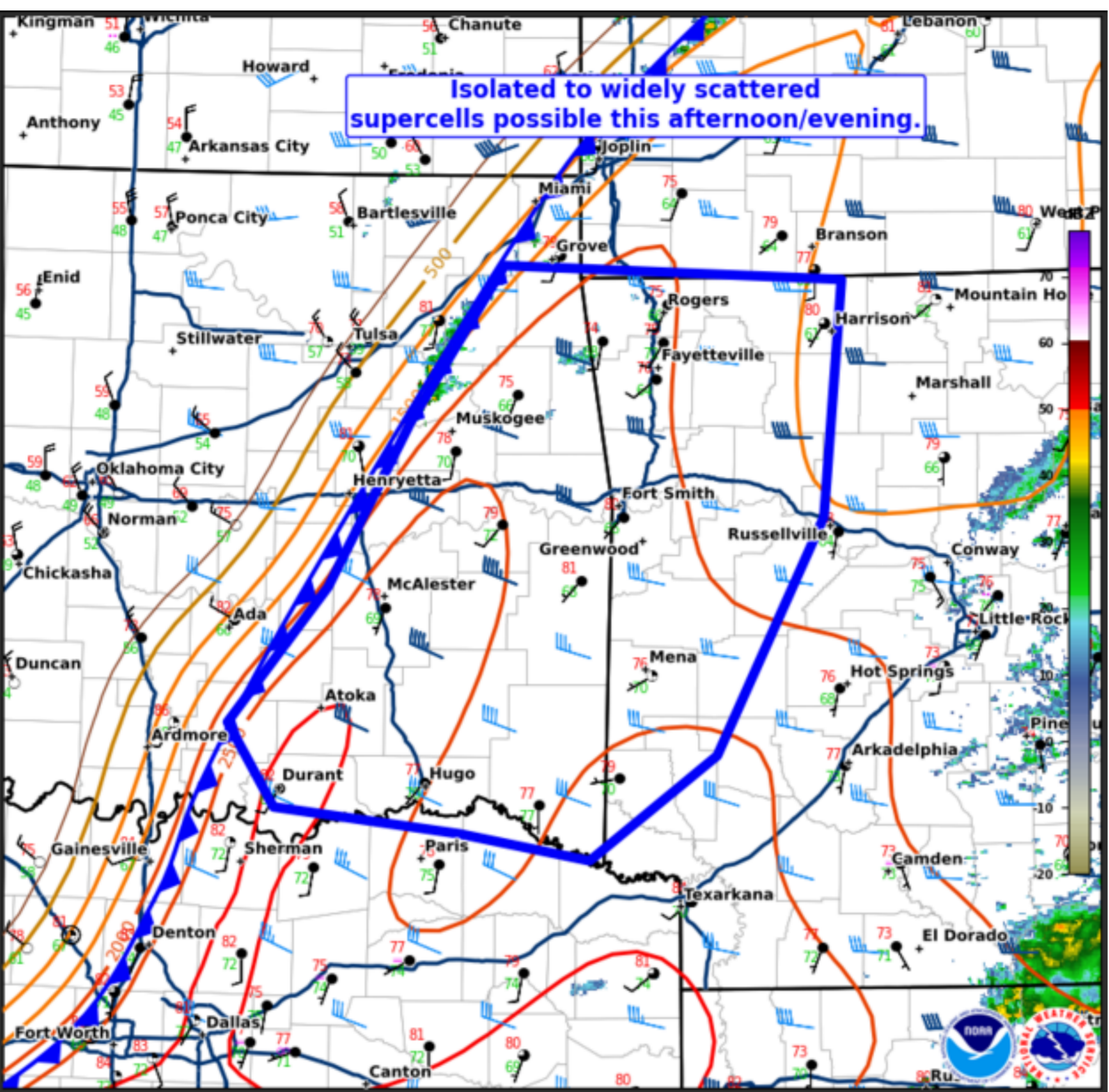
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**Mesoscale Discussion #482**  
 Valid Until: 04/18/24 5:00 PM CDT  
 Concerning: Severe Potential Watch Possible  
 Watch Probability: 60%

**Fields Plotted**  
 1958Z MRMS RALA  
 Latest Surface Observations  
 20Z MLCAPE (J/kg) and Effective Shear (kts)  
 Interstate Highways

Mesoscale Discussion 0482  
 NWS Storm Prediction Center Norman OK  
 0301 PM CDT Thu Apr 18 2024

Areas affected...eastern Oklahoma and western Arkansas

Concerning...Severe potential...Watch possible

Valid 182001Z - 182200Z

Probability of Watch Issuance...60 percent

SUMMARY...Isolated to widely scattered supercells are possible this afternoon/evening.

DISCUSSION...A strong cold front continues to move rapidly across Oklahoma this afternoon. Temperatures ahead of the front have warmed into the upper 70s to near 80 across eastern Oklahoma with a moist airmass featuring dewpoints in the upper 60s to low 70s. This yields over 2500 J/kg MLCAPE and effective shear around 40 to 45 knots. This parameter space is quite favorable for supercells capable of large to very large hail if storms form. However, there is considerable uncertainty regarding convective coverage this afternoon/evening. Despite strong convergence along the front in northeast Oklahoma, updrafts have struggled to deepen sufficiently to produce lightning. KINX base reflectivity indicates this is most likely due to storms struggling to stay anchored to, or ahead of, the cold front in the warm air. Stronger mid-level flow, the arrival of which likely coincides with mid-upper level cirrus moving across western Oklahoma now, may assist in storms remaining along or ahead of the front later this afternoon. Therefore, anticipate storms may struggle for the next 1 to 2 hours before a better chance of a few strong to severe supercells occurs later this afternoon/evening with the arrival of this mid-level speed max.

..Bentley/Mosier.. 04/18/2024

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

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