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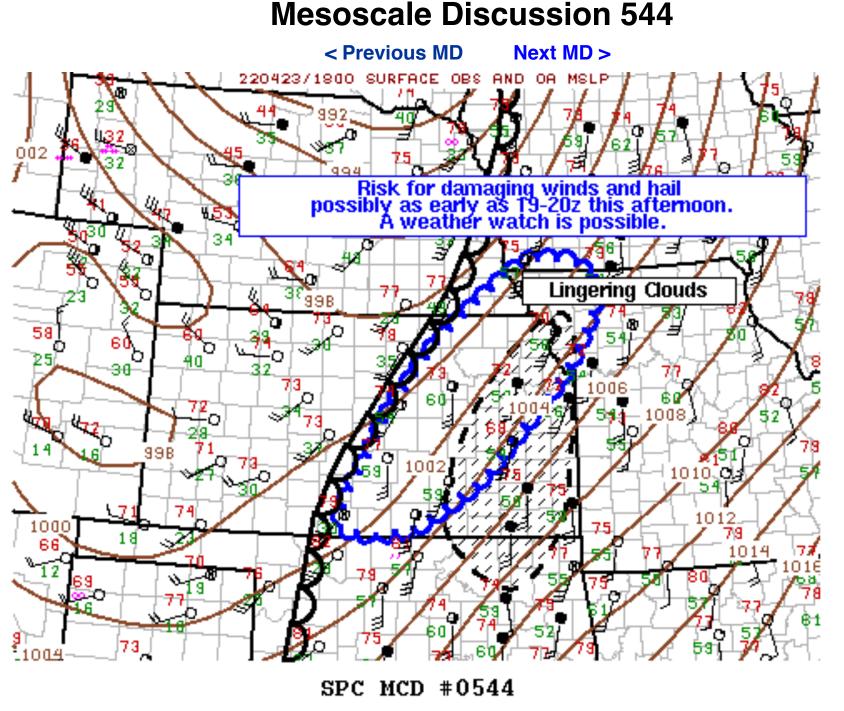
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Organization

Mesoscale Discussion 0544 NWS Storm Prediction Center Norman OK 0116 PM CDT Sat Apr 23 2022

Areas affected...portions of the central plains and Missouri Valley.

Concerning...Severe potential...Watch possible

Valid 231816Z - 232015Z

Probability of Watch Issuance...40 percent

SUMMARY...Early afternoon storm development is possible along a modified Pacific front/dryline from the MO Valley to south-central KS. A risk for damaging winds and hail is possible with any sustained storms. Uncertainty remains on how robust early development will be.

DISCUSSION...Latest GOES visible imagery showed cumulus becoming more agitated along the confluence axis near a modified Pacific front/dryline across central KS. Surface obs show temperatures have warmed into the low to mid 70s F near the front early this afternoon. Strong heating has mixed the limited surface moisture with dewpoints falling from this morning into the upper 50s to low 60s F. Area RAP sounding show between 500-1000 J/kg of MLCAPE has developed with limited CINH remaining. Ahead of most of the latest model guidance, it is possible a few storms may develop on the boundary and move quickly northeastward towards northeastern KS and the MO Valley region.

Area VAD VWPs show strong (50-60 kt), mostly unidirectional effective shear profiles supportive of a mixed mode of supercells and line segments. Lapse rates, while not overly steep, should be sufficient to support a risk for large hail as well as damaging wind gusts. Low-level flow has veered considerably owing to the deeper mixing within the warmer airmass farther west. While uncertain, a tornado or two is possible with the stronger supercells/bows farther east where low-level winds are less veered.

Most guidance and observational trends suggests additional storm development may take several more hours due to lingering cloud cover farther north and east delaying isolation. However, given the potential for severe weather with storms developing early this afternoon, a weather watch is possible.

..Lyons/Guyer.. 04/23/2022

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

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