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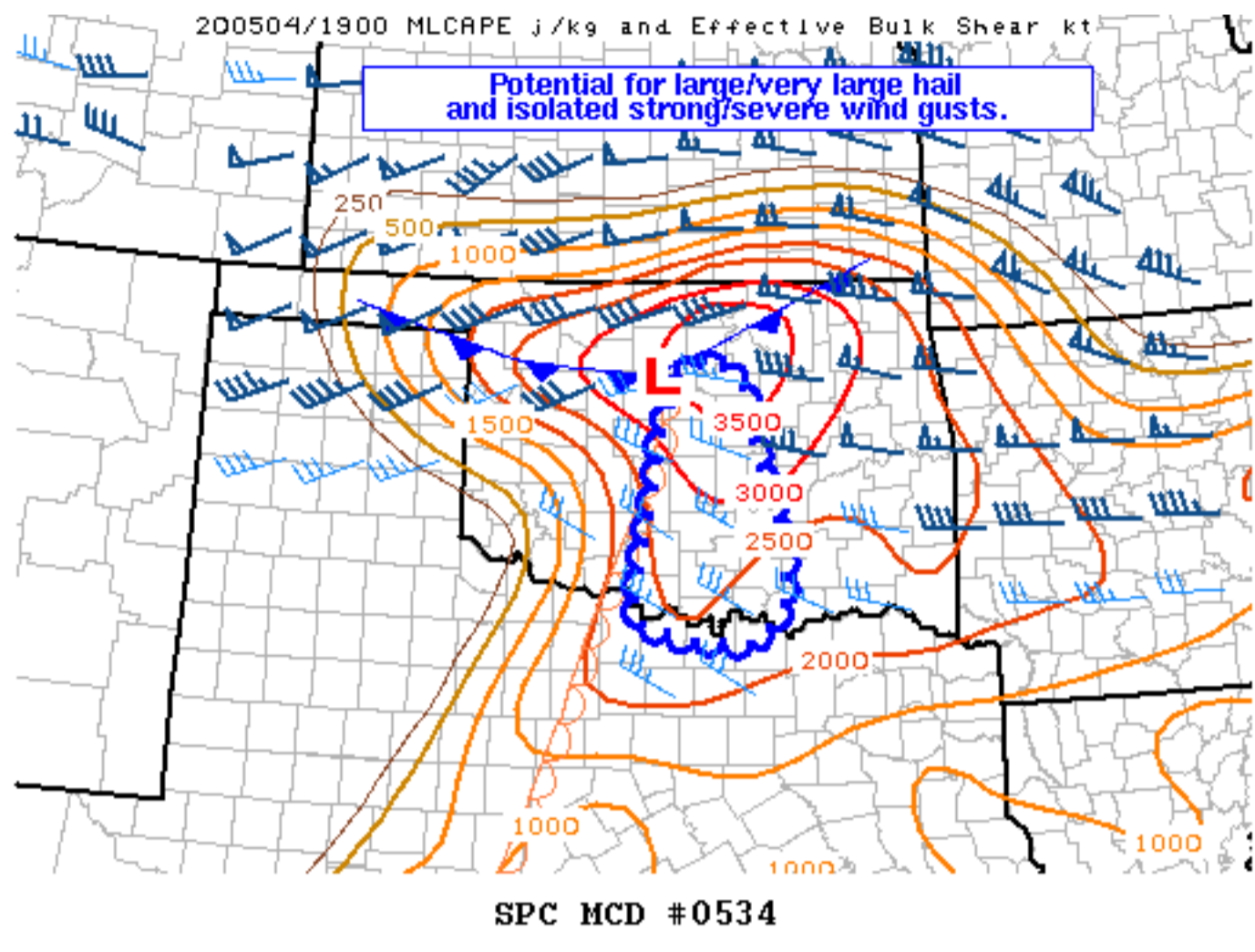
SPC Feedback



Mesoscale Discussion 534

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200504/1900 MLCAPE J/kg and Effective Bulk Shear kt



SPC MCD #0534

Mesoscale Discussion 0534

NWS Storm Prediction Center Norman OK

0346 PM CDT Mon May 04 2020

Areas affected...Central/south-central Oklahoma

Concerning...Severe potential...Watch possible

Valid 042046Z - 042245Z

Probability of Watch Issuance...40 percent

SUMMARY...Cumulus clouds have formed and become increasingly agitated in a highly unstable environment across central Oklahoma. While capping remains, the potential for rapidly developing intense storms has increased. Initiation may not occur for 1-2 more hours, per latest CAMs guidance. Large to very large hail and strong/severe wind gusts will be primary threats. A new WW or possible extension of [WW 163](#) may be needed should trends in initiation become more clear.

DISCUSSION...The likelihood of storm initiation is increasing near and south of the Oklahoma City metro area, per visible satellite imagery. A line of cumulus along a pre-frontal wind shift has been deepening over the last half hour. The 17Z LMN and 19Z sounding sampled mid-level lapse rates of near 9 C/km. With upper 60s F dewpoints south of OKC and east of I-35, MLCAPE of 3000-3500 J/kg has been objectively analyzed across central Oklahoma. Residual capping, however, remains in place on the 19Z OUN sounding. Observational trends support the signal from the latest CAMs that development will not occur for another 1-2 hours. When/if the cap is breached, rapid storm intensification can be expected given the buoyancy present. Deep-layer shear of around 35-40 kts will be sufficient for organized storms capable of large/very large hail and strong/severe wind gusts. Veered low-level winds should limit the tornado threat, particularly with western extent. A new watch or possible local extension of [WW 163](#) may be needed as development/evolution become more clear.

..Wendt/Hart.. 05/04/2020

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

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