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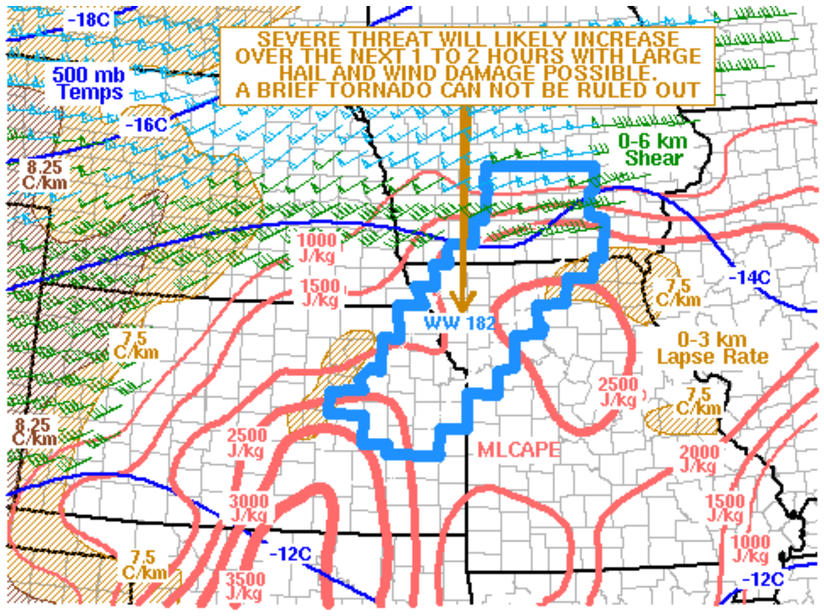

SPC MCD #0586

Mesoscale Discussion 0586
NWS Storm Prediction Center Norman OK
0601 PM CDT Thu May 14 2020

Areas affected...Eastern and Southern Kansas...Northwest Missouri...Southern Iowa

Concerning...Severe Thunderstorm Watch 182...

Valid 142301Z - 150100Z

The severe weather threat for Severe Thunderstorm Watch 182 continues.

SUMMARY...The threat for large hail and wind damage will likely increase over the next couple of hours from northwest Missouri southwestward into northeast Kansas. A brief tornado or two can not be ruled out. An isolated and more conditional severe threat may also develop to the southwest of WW 182.

DISCUSSION...The latest surface analysis shows a cold front from southwest Iowa extending southwestward into central Kansas. A moist airmass is present ahead of the front with surface dewpoints generally in the mid 60s F. A surface trough is located ahead of the front from southern Iowa into northeast Kansas, along which strong thunderstorms are developing at this time. The RAP is analyzing a corridor of moderate to strong instability along the surface trough with MLCAPE generally in the 2000 to 3000 J/kg range. The strongest deep-layer shear is analyzed across far northwest Missouri and southern Iowa where supercells with large hail will be possible. A brief tornado could occur in this area especially as low-level shear gradually increases this evening. Further to the southwest into eastern Kansas, deep-layer shear is not quite as strong. However, MLCAPE is estimated in the 2500 to 3000 J/kg range. This combined with steepening low-level lapse rates will make wind damage a possibility as a broken line of storms develops along the surface trough over the next few hours. Large hail will be possible with the more intense cores.

Southwest of WW 182, very strong instabiity is analyzed with MLCAPE in the 3000 to 3500 J/kg range. The RAP has 0-6 km shear in the 30 to 40 kt range and the Wichita WSR-88D VWP shows veering winds with height in the lowest 3 km AGL. If low-level convergence can become strong enough, isolated strong to severe thunderstorms could develop in southern Kansas. The environment would support large hail and wind damage. This severe potential is conditional upon cell initiation.

..Broyles.. 05/14/2020

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

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