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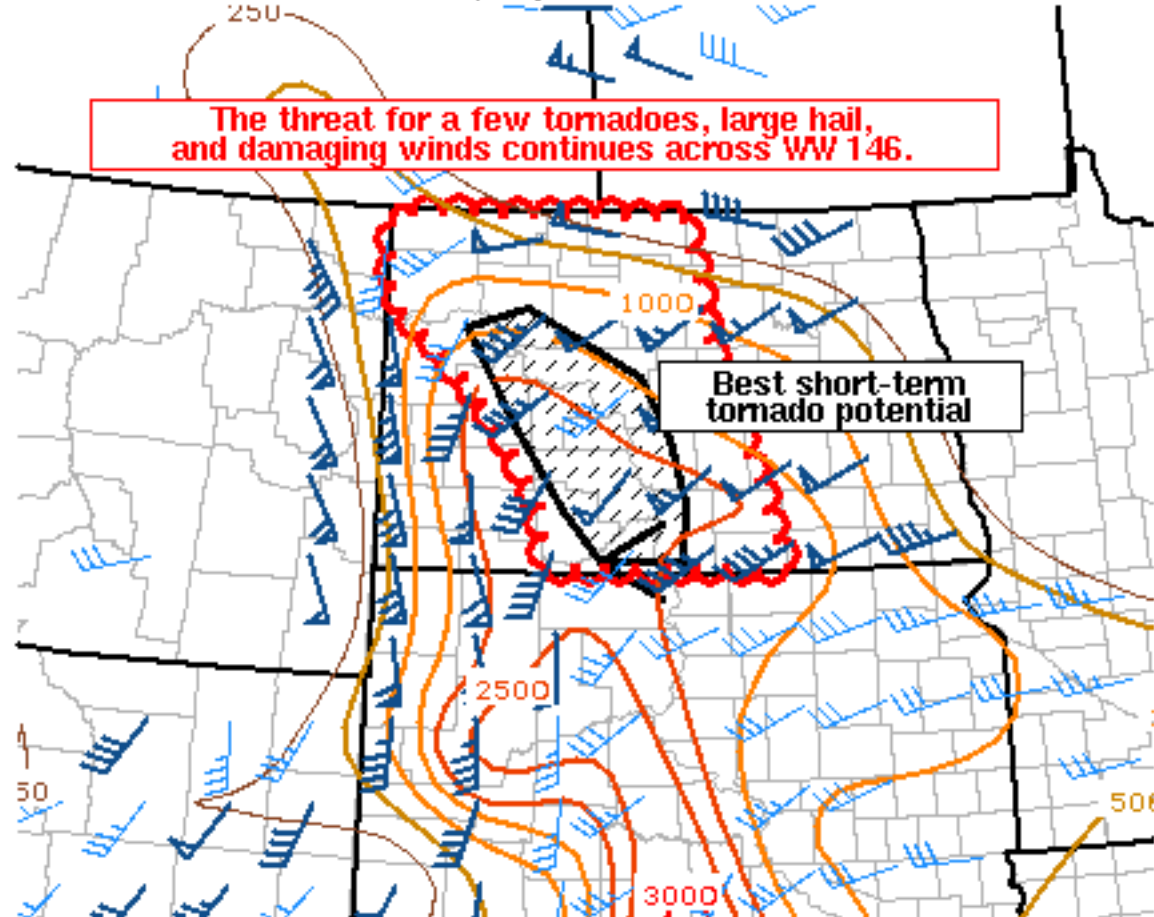
SPC Feedback

Mesoscale Discussion 615

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180601/2200 MLCAPE j/kg and Effective Bulk Shear kt



Mesoscale Discussion 0615

NWS Storm Prediction Center Norman OK

0602 PM CDT Fri Jun 01 2018

Areas affected...Portions of western/central ND

Concerning...Tornado Watch 146...

Valid 012302Z - 020030Z

The severe weather threat for Tornado Watch 146 continues.

SUMMARY...The threat for a few tornadoes, large hail, and damaging winds continues across WW 146.

DISCUSSION...RAP mesoanalysis shows a surface low over central SD, with surface troughing extending northward from this low across south-central into western ND. A band of thunderstorms has recently formed along the surface trough in western/south-central ND. A narrow corridor of surface heating has occurred ahead of this convection mainly across central ND, and a reservoir of relatively



better low-level moisture is also present over this area. Southeasterly low-level winds quickly veering and strengthening with height to southwesterly at mid levels are resulting in effective bulk shear values of 40-50 kt. Supercell structures have been noted with the line of thunderstorms, and given the sufficient instability and strong shear, large hail and damaging winds will continue to be a threat. Pronounced low-level hodograph curvature noted in both the KBIS and KMBX VWP is supporting effective SRH values of 350-500+ m2/s2. Tornadoes will be possible with any sustained, rotating updraft embedded within the line given the magnitude of the low-level shear and vertical vorticity present along the boundary. In the short-term, the best tornado potential would seem to be focused along and just northeast of the line. Continued consolidation of the line would suggest an eventual transition to a greater wind threat through the evening hours.

..Gleason.. 06/01/2018

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

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