



Storm Prediction Center

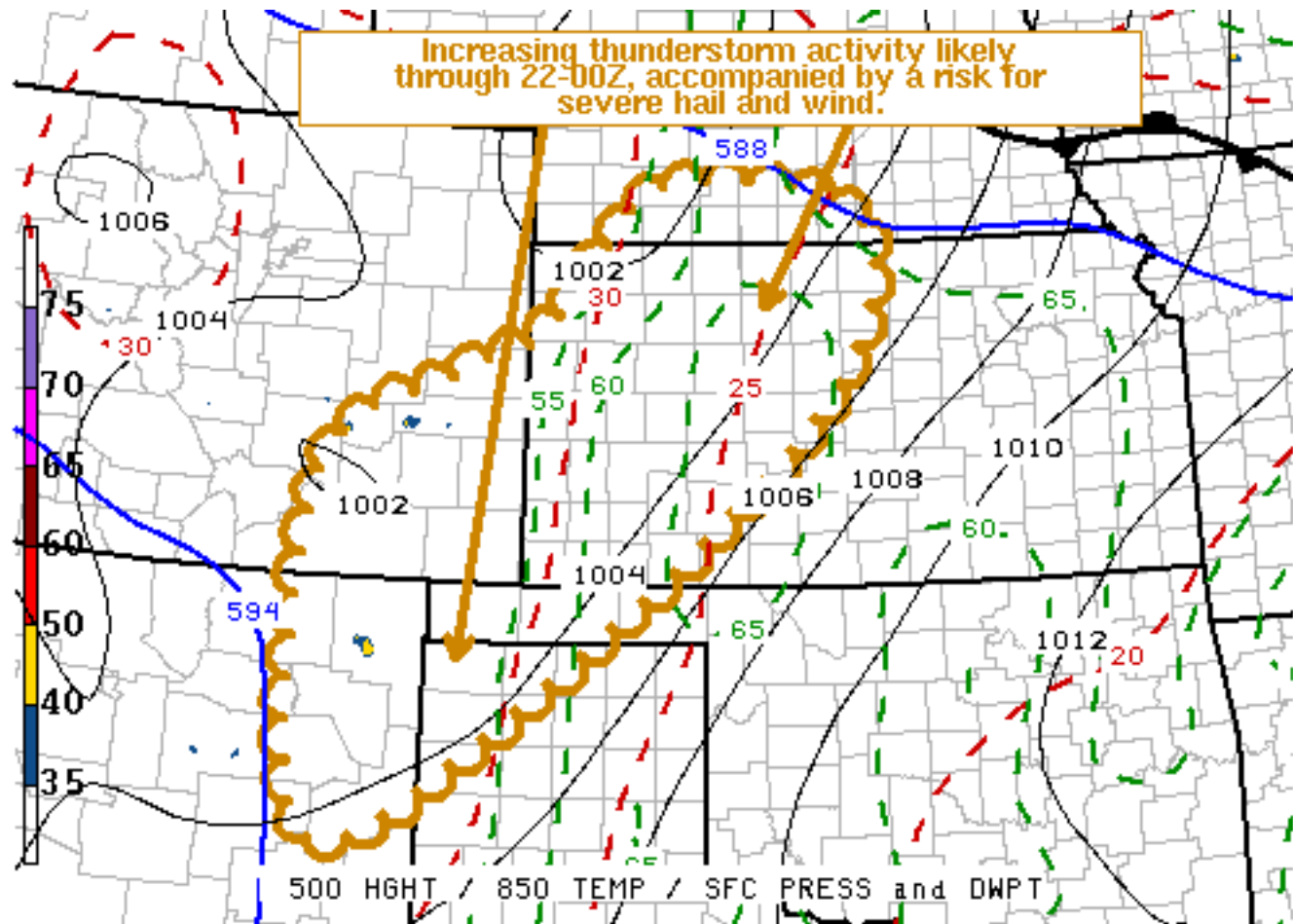

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Mesoscale Discussion 1109

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SPC MCD #1109

Mesoscale Discussion 1109

NWS Storm Prediction Center Norman OK

0230 PM CDT Wed Jun 21 2017

Areas affected...Parts of south central Nebraska...western Kansas...southeastern Colorado...northeast New Mexico and adjacent portions of the high Plains

Concerning...Severe potential...Watch possible

Valid 211930Z - 212130Z

Probability of Watch Issuance...40 percent

SUMMARY...Increasing thunderstorm activity is expected to be accompanied by a risk for severe hail and winds late this afternoon and evening. While the potential for the evolution of an appreciable organized convective system seems relatively low, it is possible the severe weather threat could require a watch at some point late this afternoon.

DISCUSSION...Scattered thunderstorms appear to be in the process of initiating across the central/southern high Plains region, from the eastern and southern slopes of the Sangre De Cristo Mountains/Palmer Divide vicinity northeastward into southwestern Nebraska. This appears to be occurring within the lee surface trough, where modest boundary layer moisture lingers and is contributing sizable CAPE in the presence of strong surface heating (temps now in the mid/upper 90s). With further boundary layer heating/mixing, activity is expected to continue to gradually intensify and increase in coverage, perhaps aided by forcing associated with a weak upper impulse or two digging southeastward, and around the northeastern periphery of the southwestern subtropical high.

With thermodynamic profiles becoming characterized by a hot and deeply mixed boundary layer, with steep mid-level lapse rates and CAPE on the order of 2000+ J/kg, the environment appears conducive to at least some risk for severe hail initially. This should be followed by increasing potential for localized strong downbursts later this afternoon, as light westerly/northwesterly deep layer mean flow supports a southeastward propagation across the high Plains through early evening.

..Kerr/Weiss.. 06/21/2017

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

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