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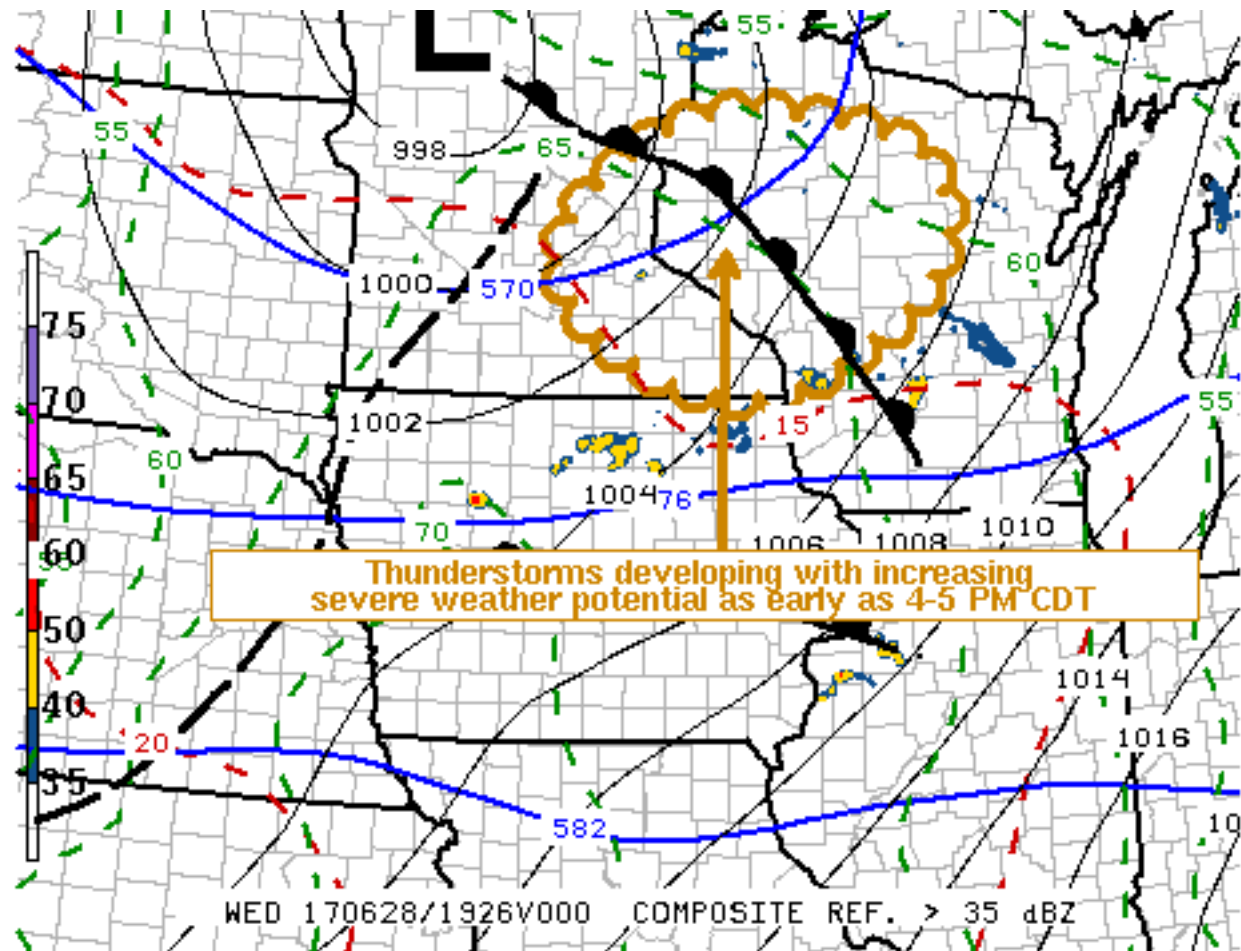
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Mesoscale Discussion 1170

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SPC MCD #1170

Mesoscale Discussion 1170

NWS Storm Prediction Center Norman OK

0249 PM CDT Wed Jun 28 2017

Areas affected...Parts of east central and southeast Minnesota into western/central Wisconsin

Concerning...Severe potential...Watch likely

Valid 281949Z - 282145Z

Probability of Watch Issuance...80 percent

SUMMARY...Thunderstorms are expected to develop and intensify across the region through late afternoon, accompanied by increasing severe weather potential as early as the 4-5 PM CDT time frame. A watch issuance seems probable within the next hour or two.

DISCUSSION...Within the warm sector of a sub-1000 mb surface cyclone now migrating across central Minnesota, insolation and low-level moistening beneath modestly steep mid-level lapse rates are

contributing to considerable boundary layer destabilization. Mixed layer CAPE now appears on the order of 1000–2000 J/kg, along and south of a warm frontal zone extending east southeast of the low center, and objective analysis suggests that mid-level inhibition is in the process of becoming increasingly negligible.

Aided by forcing for ascent associated with a mid-level cyclonic vorticity center, progressing through larger-scale upper troughing now shifting across the upper Mississippi Valley and Upper Midwest, thunderstorms are expected to develop and increase across the region through late afternoon. Initial attempts at this may already be underway near/southeast of the Minneapolis area. Activity seems likely to generally focus and propagate along the warm frontal zone, and may include discrete supercells before possibly growing upscale into an organizing convective system, in the presence of strong deep layer shear.

..Kerr/Guyer.. 06/28/2017

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

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