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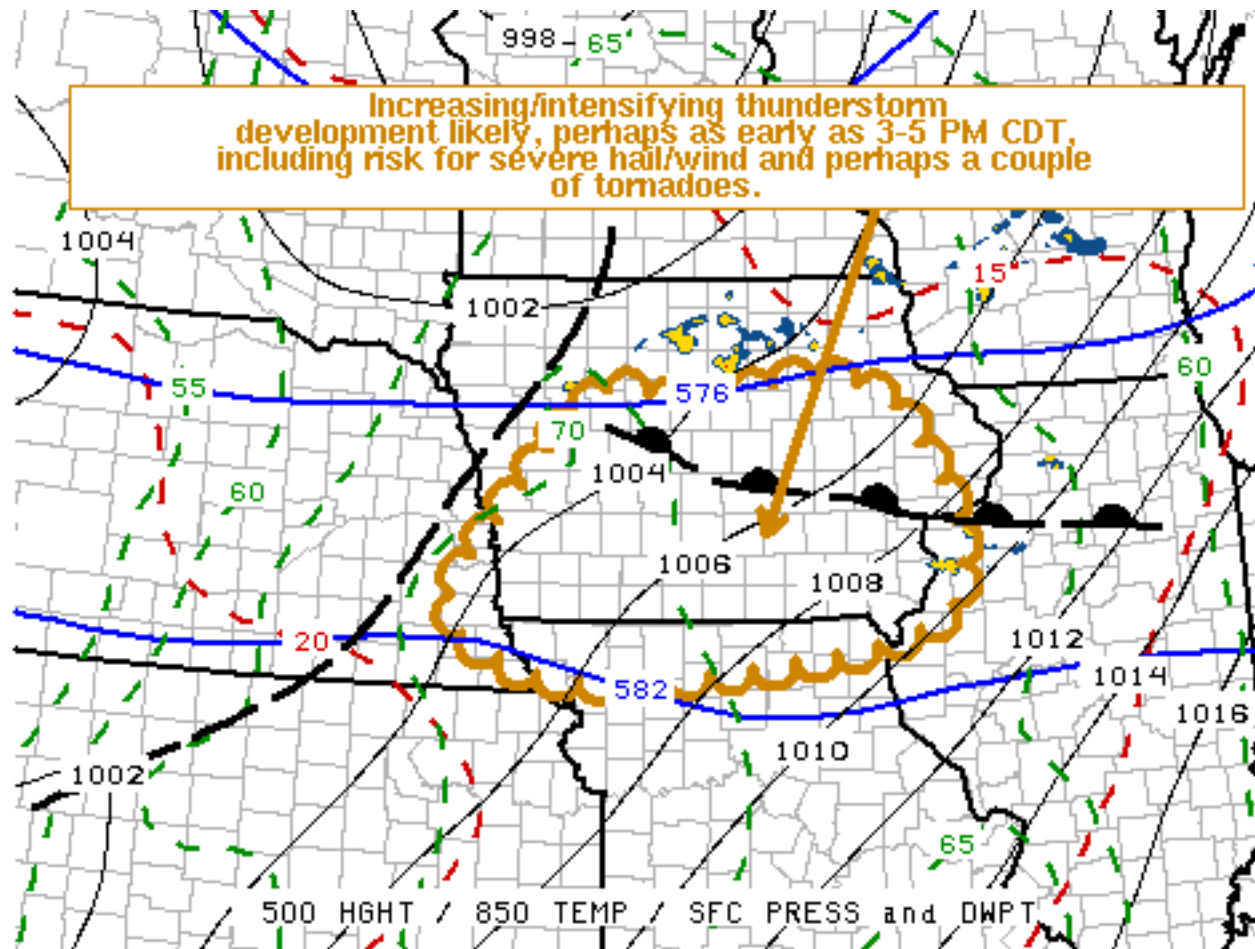
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SPC MCD #1169

Mesoscale Discussion 1169

NWS Storm Prediction Center Norman OK

0214 PM CDT Wed Jun 28 2017

Areas affected...Much of central and southern Iowa and adjacent portions of northwestern Illinois...northern Missouri and southeastern Nebraska

Concerning...Severe potential...Watch likely

Valid 281914Z - 282115Z

Probability of Watch Issuance...80 percent

SUMMARY...A rapid increase in thunderstorm activity and intensity appears possible late this afternoon, perhaps as early as the 3-5 pm CDT time frame. The latest trends are being closely monitored for increasing severe weather potential which likely will require a watch issuance.

DISCUSSION...Potential convective evolution late this afternoon

remains a little unclear, but objective analysis suggests that mid-level inhibition is becoming increasingly negligible across much of the region. This is occurring in response to both continued insolation and low-level moistening, with surface dew points currently increasing through the upper 60s and lower 70s F. Beneath a corridor of modestly steep mid-level lapse rates, associated with a thermal ridge extending east northeast of a plume of warmer and more strongly capping elevated mixed-layer air across the central Plains, moderately large mixed layer CAPE (2000-3000 J/kg) appears to be developing.

Given this magnitude of potential instability, in the presence of weakening inhibition, rapid thunderstorm development and intensification appears possible within the next few hours. Forcing for ascent to support initiation, however, remains a bit unclear.

Deepening convective development is currently evident along the surface trough axis, to the west of a persistent area of elevated thunderstorm activity now spreading east northeastward across north central Iowa. Additional attempts at deepening convective development also appear ongoing around and east of the Omaha area, beneath a somewhat warmer mid-level environment, in the presence of enhanced lower/mid tropospheric warm advection. As a lingering mid-level speed maximum (associated with larger-scale upper troughing shifting into the Upper Midwest) gradually noses east of the mid Missouri Valley late this afternoon, a general increase in convective development seems probable, in the presence of sufficient vertical shear for supercells, and, eventually, an upscale growing thunderstorm cluster or two.

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

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

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