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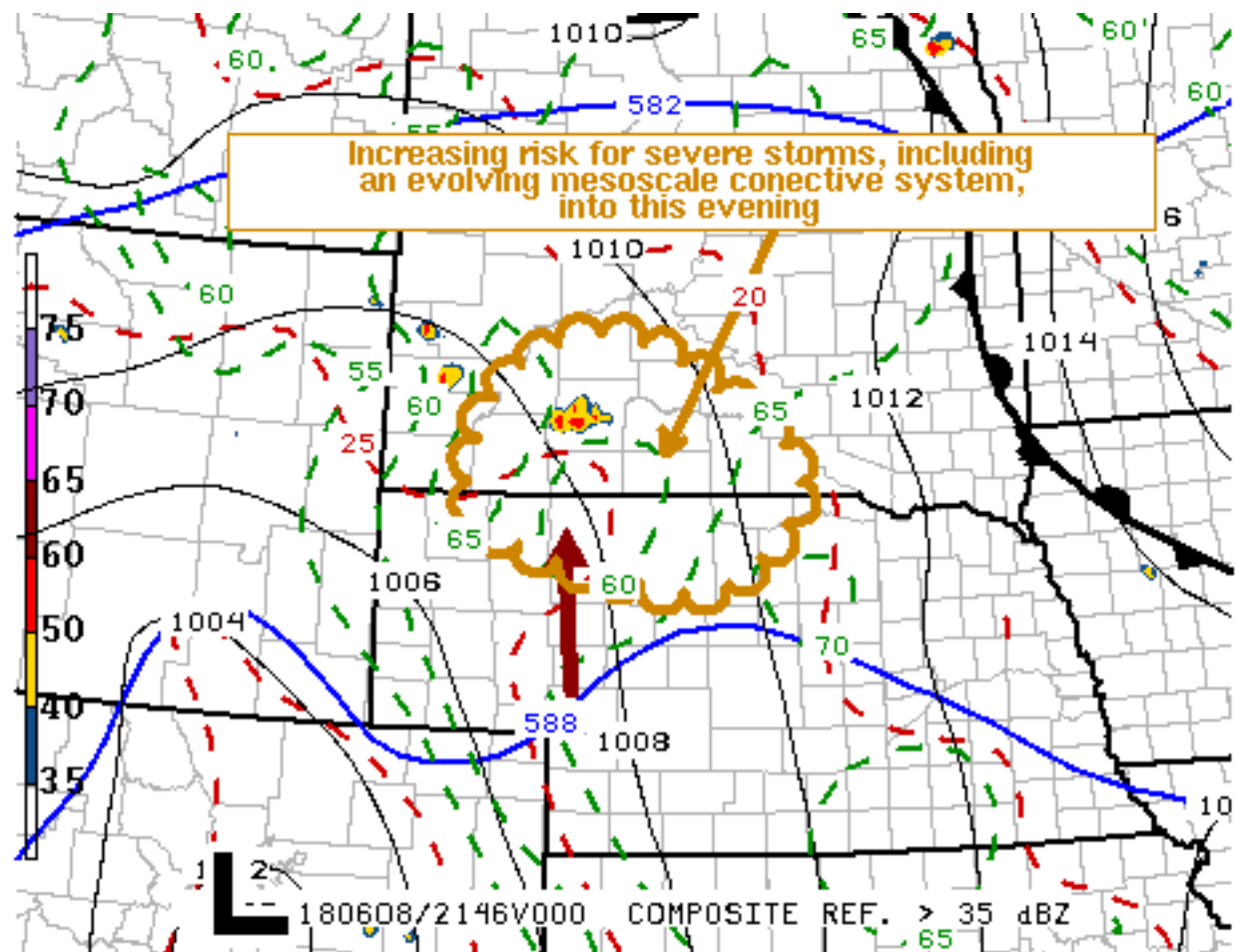
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## Mesoscale Discussion 673

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**SPC MCD #0673**

Mesoscale Discussion 0673

NWS Storm Prediction Center Norman OK

0502 PM CDT Fri Jun 08 2018

Areas affected...Southwest/south central South Dakota into north central Nebraska

Concerning...Severe potential...Watch possible

Valid 082202Z - 082330Z

Probability of Watch Issuance...60 percent

SUMMARY...A continuing increase in thunderstorm coverage and intensity seems likely through the 6-8 PM MDT time frame, accompanied by a risk for severe hail and wind. An additional severe weather watch probably will be issued within the next hour or so.

DISCUSSION...Vigorous thunderstorms initiating south of Philip SD appear to be doing so within a zone of enhanced lower/mid

tropospheric warm advection, roughly centered near the central Nebraska/South Dakota border area. This field is generally on the northeastern periphery of a plume of more strongly capping elevated mixed-layer, and may provide the focus for increasing storm development into the evening hours.

Thermodynamic profiles across the region are characterized by steep mid-level lapse rates and moderate to large CAPE, supportive of intense updrafts, more than capable of producing severe hail, and the potential for strong downbursts and surface cold pool development. Deep layer mean flow is rather modest (southwesterly on the order of 20 kt), but veering of winds with height appear to be contributing to vertical shear at least marginally sufficient for organizing convective development.

Into the the 00-02Z time frame, consolidating/upscale growing convection with merging cold pools appears possible, which may eventually evolve into an organized mesoscale convective system with more widespread strong surface gusts. If/when this occurs, the tendency should be for activity to propagate southeastward.

..Kerr/Hart.. 06/08/2018

...Please see [www.spc.noaa.gov](http://www.spc.noaa.gov) for graphic product...

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