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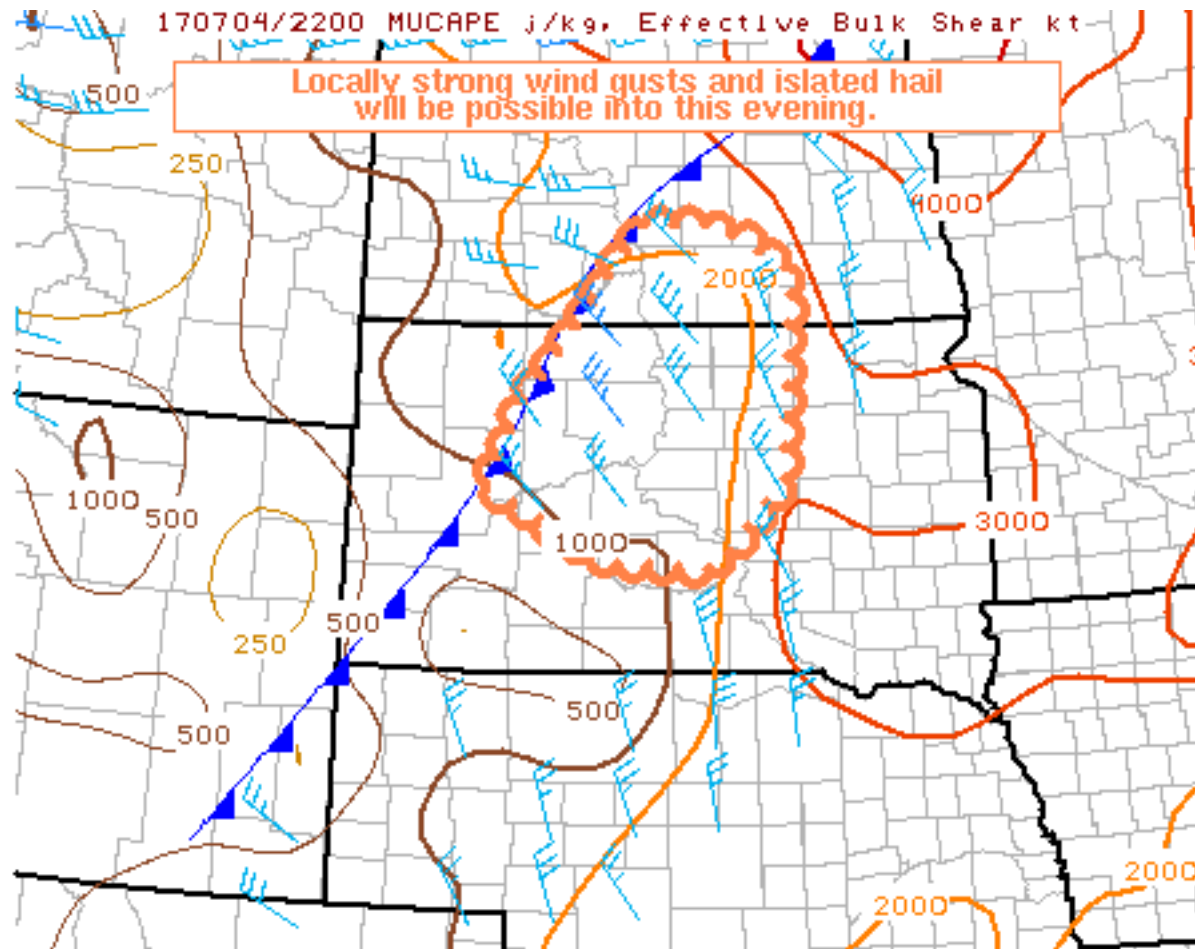
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Mesoscale Discussion 1231

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SPC MCD #1231

Mesoscale Discussion 1231

NWS Storm Prediction Center Norman OK

0511 PM CDT Tue Jul 04 2017

Areas affected...Part of northern and central SD and southern ND

Concerning...Severe potential...Watch possible

Valid 042211Z - 050045Z

Probability of Watch Issuance...40 percent

SUMMARY...Locally strong wind gusts and isolated hail will be possible with stronger to sustained storms into this evening. Uncertainty in overall coverage and shorter temporal potential for strong to severe storms advancing to the east into central and northern SD and southern ND is limiting consideration for a watch issuance. Convective trends will continue to be monitored for an increase in coverage.

DISCUSSION...Mosaic radar imagery and lightning data showed a band

of thunderstorms extending from south-central ND into adjacent portions of northwest to north-central SD, with new storms continuing to form on along the north and south extensions of this activity. The immediate environment east of these storms is not as strongly unstable as locations farther east across the eastern Dakotas into MN. However, MUCAPE of 1500 J/kg, steep 2-6 km layer lapse rates (8-9 C/km), and an expected increase in effective bulk shear to 30-35 kt suggest additional stronger/sustained storms will be possible into the evening. Weaker winds below 500 mb may tend to limit greater storm organization, while an increase in capping with the loss of daytime heating suggests storms should tend to weaken later this evening as they move east, especially into more of central SD. Until 03-04Z, a deeply, well-mixed boundary layer with steep lapse rates and surface temperature/dew point spreads up to 50 degrees suggest locally strong wind gusts will be possible with each storm.

..Peters/Guyer.. 07/04/2017

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

ATTN...WFO...ABR...BIS...UNR...

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