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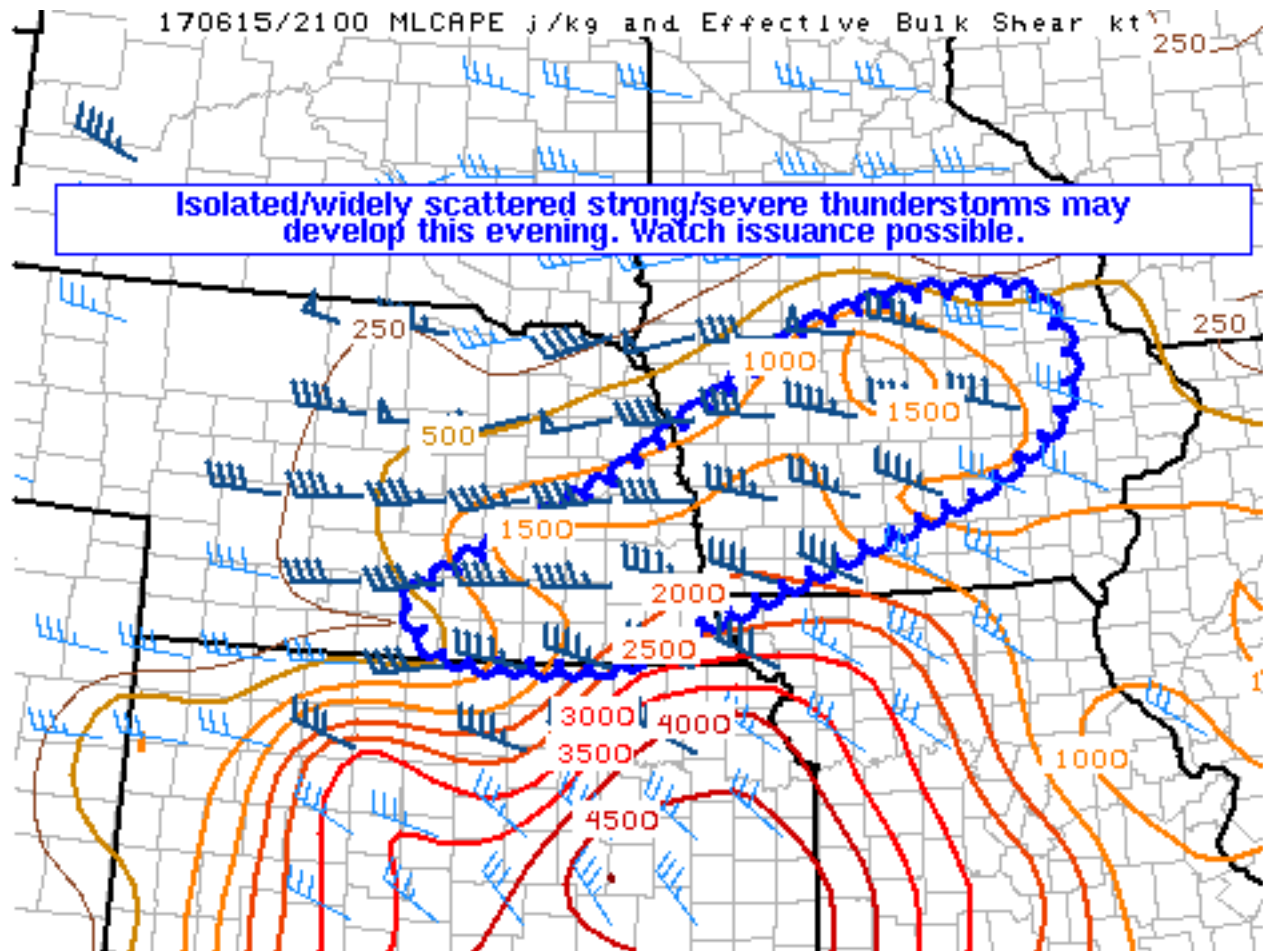
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## Mesoscale Discussion 1045

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Mesoscale Discussion 1045

NWS Storm Prediction Center Norman OK

0511 PM CDT Thu Jun 15 2017

Areas affected...Portions of the mid Missouri Valley to eastern Iowa

Concerning...Severe potential...Watch possible

Valid 152211Z - 152315Z

Probability of Watch Issuance...40 percent

SUMMARY...Isolated thunderstorms may develop through the evening hours, with an attendant potential for large hail and damaging winds. Observational trends are being monitored for possible watch issuance.

DISCUSSION...Visible satellite late this afternoon depicts pockets of agitated/towering cumulus across the mid Missouri Valley and vicinity this evening. Also noted in satellite imagery, mid/upper-level cloud cover continues to overspread these cumulus

fields, suggesting a speed maximum may be providing weak large-scale ascent. Despite fairly weak low-level convergence along a front extending northeast, the influence of this system may be sufficient for isolated convective initiation over the next several hours. Moreover, guidance suggests development may be bolstered along the northern fringe of an anvil spreading north from a convective system over Kansas. An array of mesoscale/microphysical processes (e.g., differential heating, anvil seeding, gravity waves) may be the cause of such bolstered development; regardless, visible satellite appears to confirm the notion of enhanced development along the leading edge of the anvil. Steep mid-level lapse rates (and related strong buoyancy), as well as adequate westerly mid/upper flow, may be sufficient for a few organized/rotating updrafts, capable of large hail and damaging winds. Therefore, trends are being monitored for possible watch issuance over the next few hours.

..Picca/Guyer.. 06/15/2017

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

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