



Storm Prediction Center

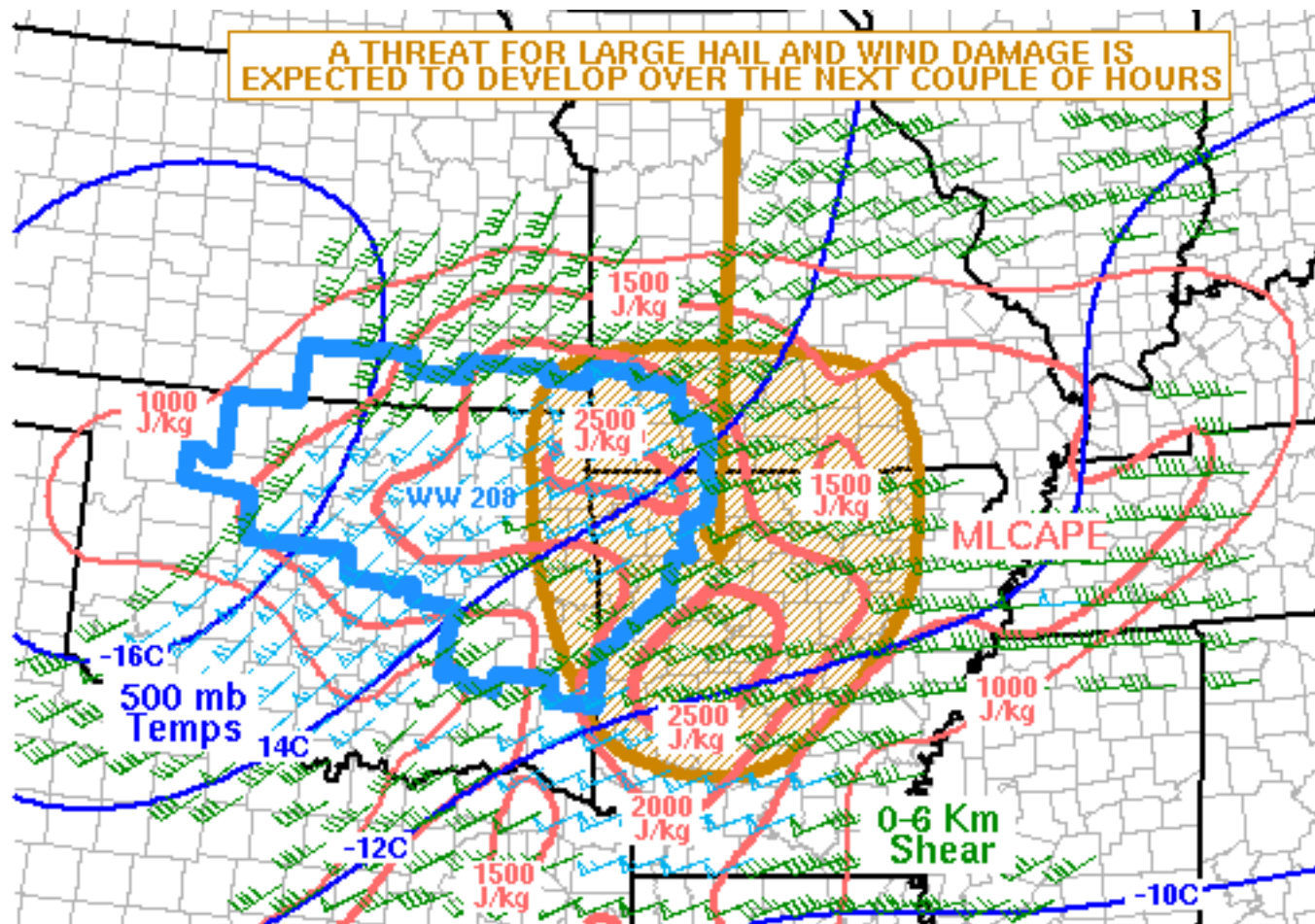

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Mesoscale Discussion 697

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SPC MCD #0697

Mesoscale Discussion 0697

NWS Storm Prediction Center Norman OK

0249 PM CDT Thu May 11 2017

Areas affected...Far Eastern Oklahoma...Arkansas...Far Southeast
Kansas...Southern Missouri

Concerning...Severe Thunderstorm Watch [208](#)...

Valid 111949Z - 112145Z

The severe weather threat for Severe Thunderstorm Watch 208
continues.

SUMMARY...A severe threat is expected to develop across parts of far
eastern Oklahoma, much of Arkansas and into southern Missouri. Large
hail and wind damage are expected to be the primary threats. A new
weather watch will likely be needed to the east of [WW 208](#) within the
hour.

DISCUSSION...The latest surface analysis shows a 1008 mb low in

central Oklahoma with a moist airmass located to the east of the low across eastern Oklahoma and Arkansas. Surface dewpoints across this area are generally in the mid to upper 60s F with the RAP estimating MLCAPE values in the 2000 to 3000 J/kg range. Severe thunderstorms are ongoing in the central part of [WW 208](#) just to the west of where the strongest instability is analyzed. The wind shear environment in the vicinity of these storms is sampled well by the Tulsa WSR-99D VWP which shows 0-6 km shear of 50 kt and some veering of winds with height in the lowest 2 km AGL. This combined with 700-500 mb lapse rates near 8.0 C/km will support supercells with large hail. Supercells should also be associated with a wind damage threat. This convection is forecast to maintain a severe threat, moving northeastward into southwest Missouri. Thunderstorms will also likely intensify southward across western and central Arkansas over the next couple of hours. Moderate to strong deep-layer shear and steep mid-level lapse rates in this area will also make supercells with large hail possible. Short bowing line segments may also develop and be accompanied by a wind damage threat.

..Broyles.. 05/11/2017

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

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Page last modified: May 11, 2017

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