



Local forecast by "City, St" or "ZIP"

City, St Go

Mesoscale Discussion 689

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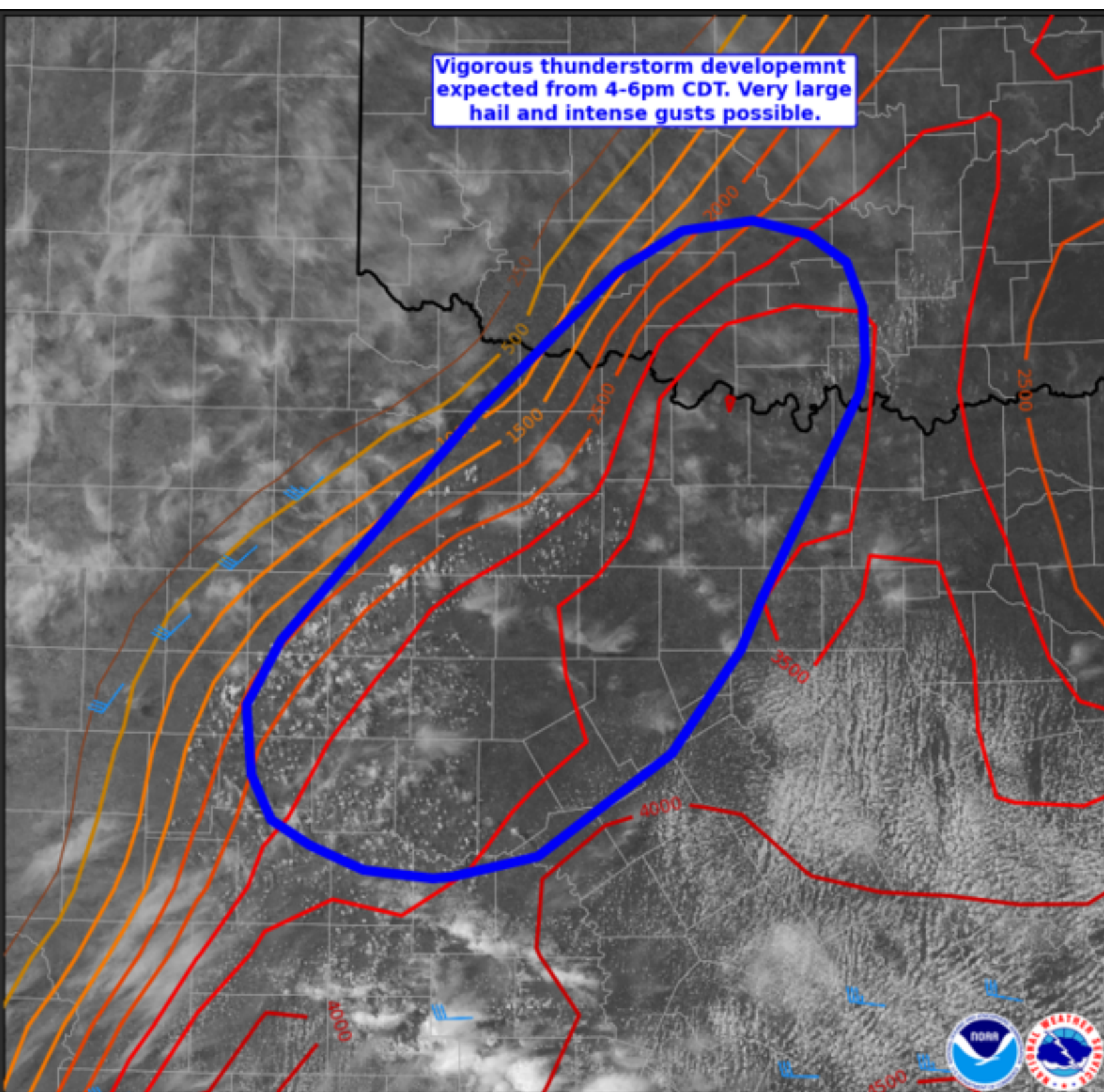

Mesoscale Discussion #689

Valid Until:
05/06/23 5:15 PM CDT

Concerning:
Severe Potential
Watch Likely
Watch Probability: 80%

Fields Plotted

2001Z Visible Satellite
20Z MLCAPE (J/kg)
and Effective Shear (kts)



Mesoscale Discussion 0689
NWS Storm Prediction Center Norman OK
0308 PM CDT Sat May 06 2023

Areas affected...portions of central/northern TX into south-central OK

Concerning...Severe potential...Watch likely

Valid 062008Z - 062215Z

Probability of Watch Issuance...80 percent

SUMMARY...Vigorous thunderstorm development is expected by 21-23z/4-6pm CDT. Very large hail and scattered damaging gusts will be the main hazards associated with these storms through this evening. A severe thunderstorm watch will likely be needed in the next couple of hours.

DISCUSSION...An expanding cumulus field from near San Angelo TX northeast toward Wichita Falls TX is becoming increasingly agitated this afternoon. Strong heating along a dryline has resulted in temperatures from the upper 80s to low 90s. To the east of the dryline, surface dewpoints from the upper 60s to low 70s F beneath very steep midlevel lapse rates (greater than 8 C/km) are contributing to MLCAPE values around 2500-3000 J/kg. 19z objective analysis indicated capping is also rapidly eroding. Thunderstorms are expected to develop close to the dryline by 22z/5 pm CDT. Given strong instability and favorable lapse rates, intensification may occur fairly rapidly. Deep-layer flow is relatively modest, but vertically veering wind profiles with some increase in midlevel southwesterly flow by 23-00z will result in effective shear magnitudes around 25-30 kt.

Very large hail (to around 3 inch diameter) will be possible, especially early in storm evolution. Steep low-level lapse rates also may promote strong downburst winds. Wind potential also may increase with time/eastward extent if some upscale development into forward-propagating clusters/bowing segments occurs, as some some short term hi-res guidance suggests.

..Leitman/Hart.. 05/06/2023

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

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 32600044 33849920 34599830 34799790 34859744 34779708
 34619683 34389674 34089672 33929676 32839740 32559755
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