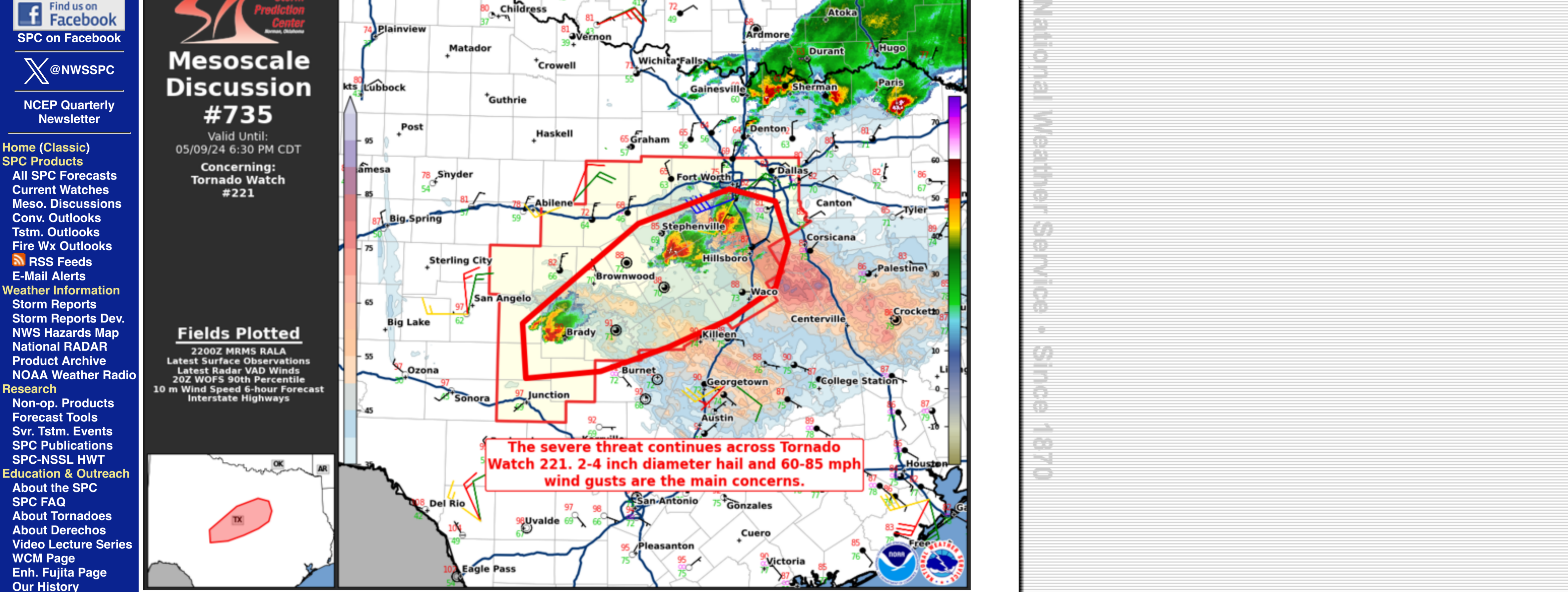


**Mesoscale Discussion 735**  
 < Previous MD Next MD >



**Mesoscale Discussion #735**  
 Valid Until: 05/09/24 6:30 PM CDT  
 Concerning: Tornado Watch #221

**Fields Plotted**  
 2200Z MRMS RALA  
 Latest Surface Observations  
 Latest Radar VAD Winds  
 20Z WQFS 90th Percentile  
 10 m Wind Speed 6-hour Forecast  
 Interstate Highways

**Fields Plotted**  
 2200Z MRMS RALA  
 Latest Surface Observations  
 Latest Radar VAD Winds  
 20Z WQFS 90th Percentile  
 10 m Wind Speed 6-hour Forecast  
 Interstate Highways

Mesoscale Discussion 0735  
 NWS Storm Prediction Center Norman OK  
 0502 PM CDT Thu May 09 2024

Areas affected...portions of central Texas

Concerning...Tornado Watch 221...

Valid 092202Z - 092330Z

The severe weather threat for Tornado Watch 221 continues.

**SUMMARY...**The severe threat continues across Tornado Watch 221. 2-4 inch diameter hail and 60-85 mph wind gusts are the main concerns, though a tornado cannot be completely ruled out.

**DISCUSSION...**Three large, intense supercells, with echo tops exceeding 50 kft, continue to progress southeastward across central portions of TX, with the storms southwest of the Metroplex having a history of producing 2-3 inch diameter hail. Ahead of the storms, upper 80s F/mid 70s F surface temperatures/dewpoints, overspread by 8 C/km mid-level lapse rates, are boosting MLCAPE to the 3000-5000 J/kg range (per 21Z mesoanalysis). Coinciding with this extreme buoyancy are elongated hodographs and 50-70 kts of effective bulk shear. The preceding CAPE/shear parameter space suggests that intense supercells with 2-4 inch diameter hailstones and severe gusts (perhaps up to 85 mph) should continue over the next several hours, as also suggested by the latest Warn-on-Forecast ensemble output. The severe gusts will be most likely with any supercells that can merge and support cold pool development.

Storms appear to progress immediately behind a surface boundary, that combined with weak low-level speed and directional shear (per recent regional VADs) should temper the tornado threat to a degree. However, given the extreme buoyancy, any supercell that can move ahead of the boundary could potentially produce a tornado. Later this evening, some upscale growth of the supercells into one or more MCSs appears likely, and the severe wind threat should increase accordingly.

..Squitieri.. 05/09/2024

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

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