

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

**Mesoscale Discussion 631**

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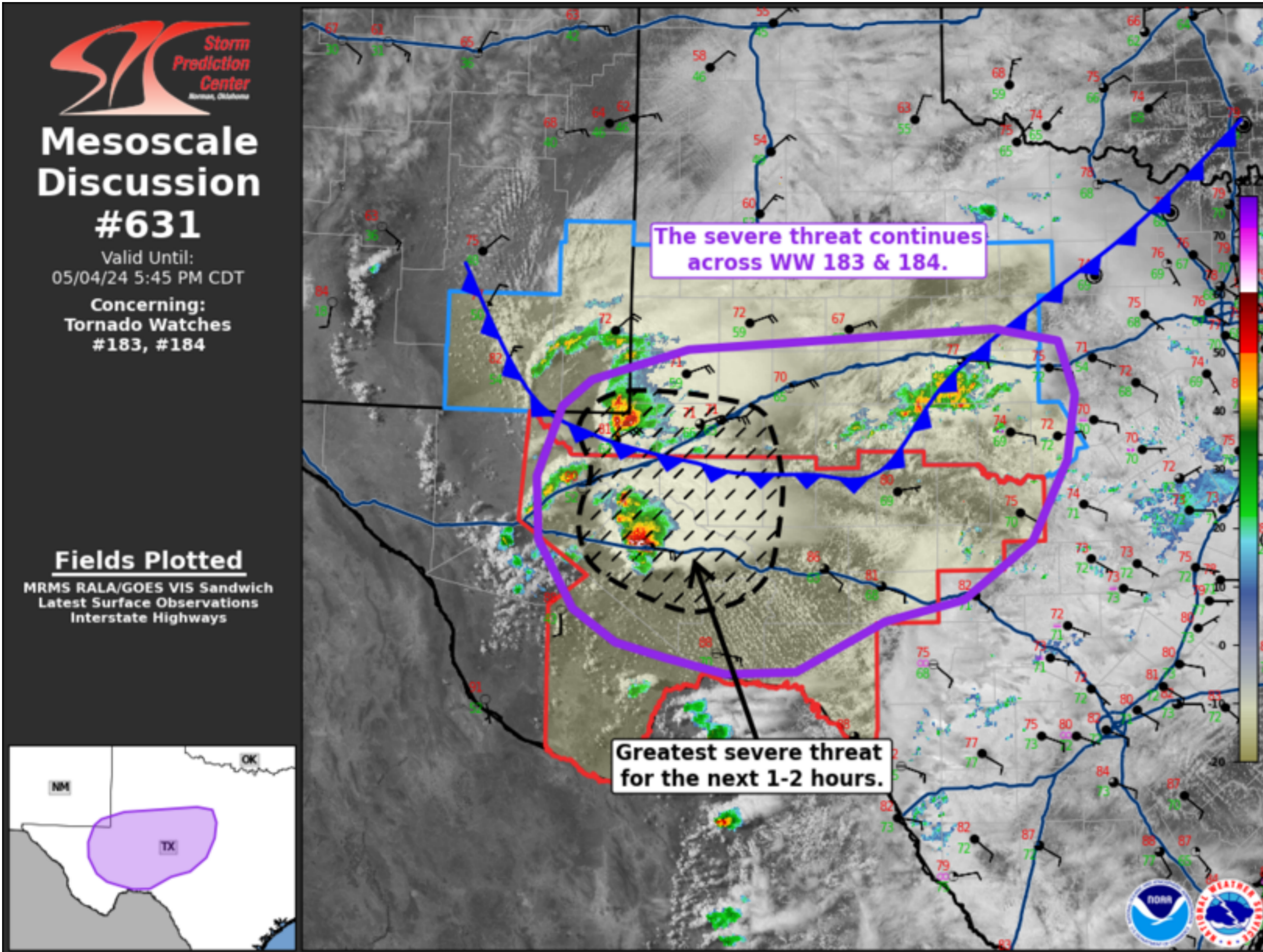
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Mesoscale Discussion 0631  
 NWS Storm Prediction Center Norman OK  
 0347 PM CDT Sat May 04 2024

Areas affected...Southwest Texas

Concerning...Tornado Watch 183...184...

Valid 042047Z - 042245Z

The severe weather threat for Tornado Watch 183, 184 continues.

**SUMMARY...**The severe threat continues across much of severe thunderstorm watch 183 and tornado watch 184 over west/southwest Texas. The greatest severe weather potential will likely be focused along and north of the I-10 corridor for the next couple of hours.

**DISCUSSION...**20 UTC surface observations and visible/radar imagery continue to show a cold front migrating south across western TX into a moderately to strongly buoyant air mass. Towering cumulus denoting substantial lift is noted along the boundary, which will maintain the potential for additional thunderstorm development heading into the late afternoon hours. Just behind/along the front, a well-organized supercell over Winkler County, TX appears to be displaced slightly to the cool side of the boundary. Although this cell may be slightly undercut by the front, temperatures in the upper 60s/low 70s may still support sufficient surface-based buoyancy based on RAP forecast soundings. Northeasterly surface winds will help elongate low-level hodographs, promoting favorable helicity for storm organization and large/very large hail production and some tornado threat as the cell tracks east.

Ahead of the front, discrete supercells that initiated off of the Davis Mountains continue to mature and become better organized as they migrate deeper into the warm sector. Daytime heating combined with elongating deep-layer hodographs ahead of an approaching upper disturbance will promote an increasingly favorable environment for severe convection. Consequently, further intensification of these cells is anticipated in the coming hours with the potential for very large hail (2-4 inches in diameter) and tornadoes. The expectation for the next couple of hours is that the greatest severe threat will be associated with (and downstream of) both the post-frontal Winkler county supercell and the open warm sector convection.

Further to the northeast closer to the I-20 corridor (Big Country), clustered convection developing along the front will pose a severe hail risk, but the potential for destructive storm interactions may modulate the overall severe threat.

..Moore.. 05/04/2024

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