

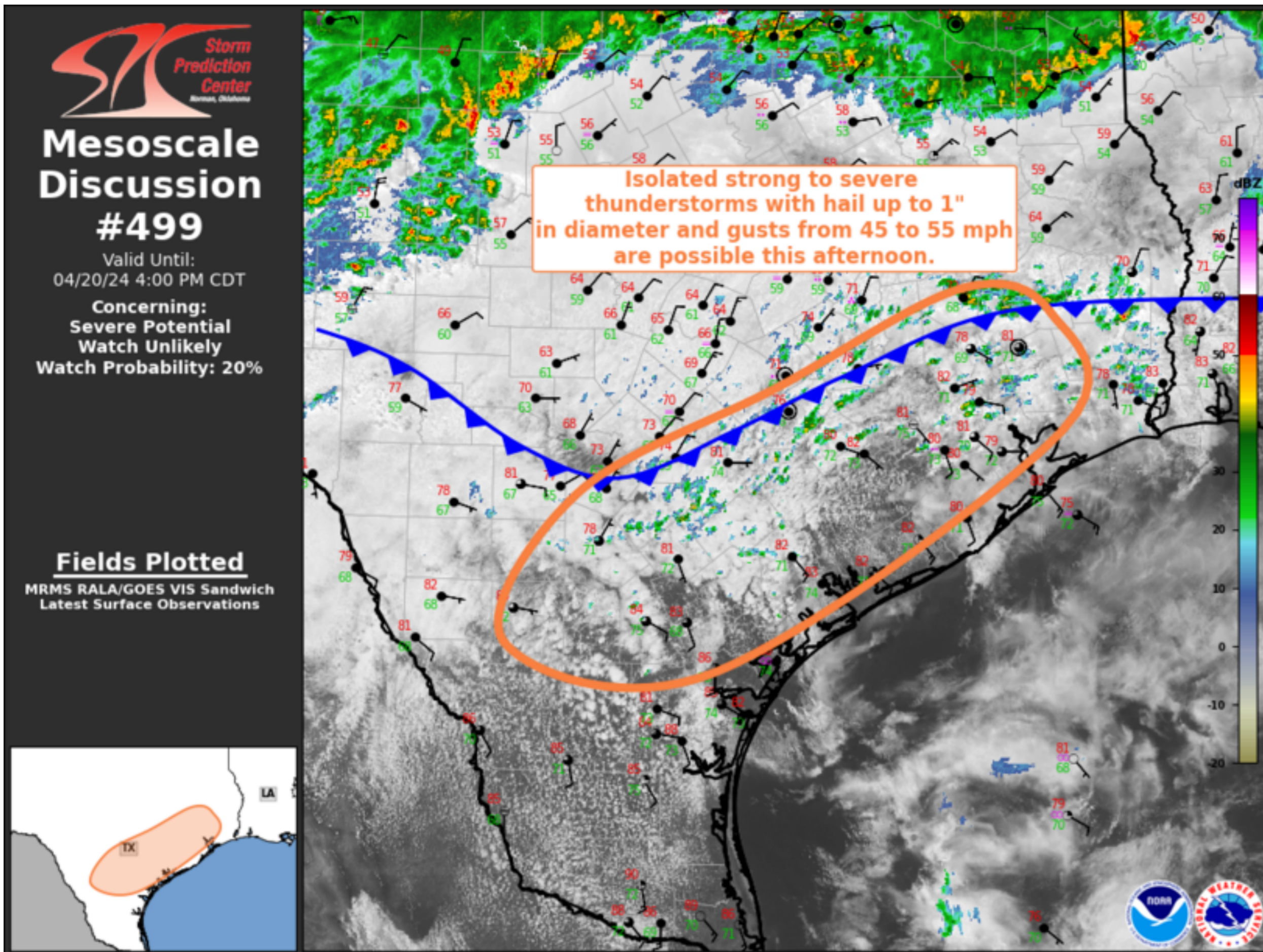
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### Mesoscale Discussion 499

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## Mesoscale Discussion #499

Valid Until:  
 04/20/24 4:00 PM CDT  
 Concerning:  
 Severe Potential  
 Watch Unlikely  
 Watch Probability: 20%

Fields Plotted  
 MRMS RALA/GOES VIS Sandwich  
 Latest Surface Observations



Mesoscale Discussion 0499  
 NWS Storm Prediction Center Norman OK  
 0136 PM CDT Sat Apr 20 2024

Areas affected...Texas Coastal Plain into Southeast TX

Concerning...Severe potential...Watch unlikely

Valid 201836Z - 202100Z

Probability of Watch Issuance...20 percent

**SUMMARY...**Widespread thunderstorms are expected from the Texas Coastal Plain into Southeast TX this afternoon. Isolated strong to severe thunderstorms are possible, with hail to 1" in diameter and damaging gusts from 45 to 55 mph as the primary hazards.

**DISCUSSION...**A cold front continues to push slowly south across central and east TX, aided by a widespread showers and thunderstorms from southwest TX through north-central and into northeast TX. Warm and moist southerly low-level flow has persisted throughout the morning and into to early afternoon. This has resulted in increased low-level convergence along the front zone while also destabilizing the downstream air mass. Pre-frontal dewpoints now range from the upper 60s across the TX Hill Country to the low 70s across the TX Coastal Plain into southeast TX. Additionally, filtered heating has allowed temperatures to rise into the low 80s. These low-level thermodynamic conditions have resulted in air mass destabilization, with mesoanalysis recently estimating that convective inhibition has eroded. Additionally, these warm and moist conditions are contributing to moderate buoyancy (i.e. around 1500 J/kg) despite relatively poor mid-level lapse rates.

General expectation is for thunderstorm coverage to increase this afternoon along and ahead of the front. Widespread coverage should limit storm discreteness while boundary-parallel deep-layer vertical shear favors multicell clusters. Even so, Given the moderate buoyancy and shear, a few stronger storms are possible. The strongest storms may be able to produce hail up to around 1". A few water-loaded downbursts from 45 to 55 mph are possible as well.

..Mosier/Goss.. 04/20/2024

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

ATTN...WFO...LCH...HGX...CRP...EWX...

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