NORA

Storm Prediction Center



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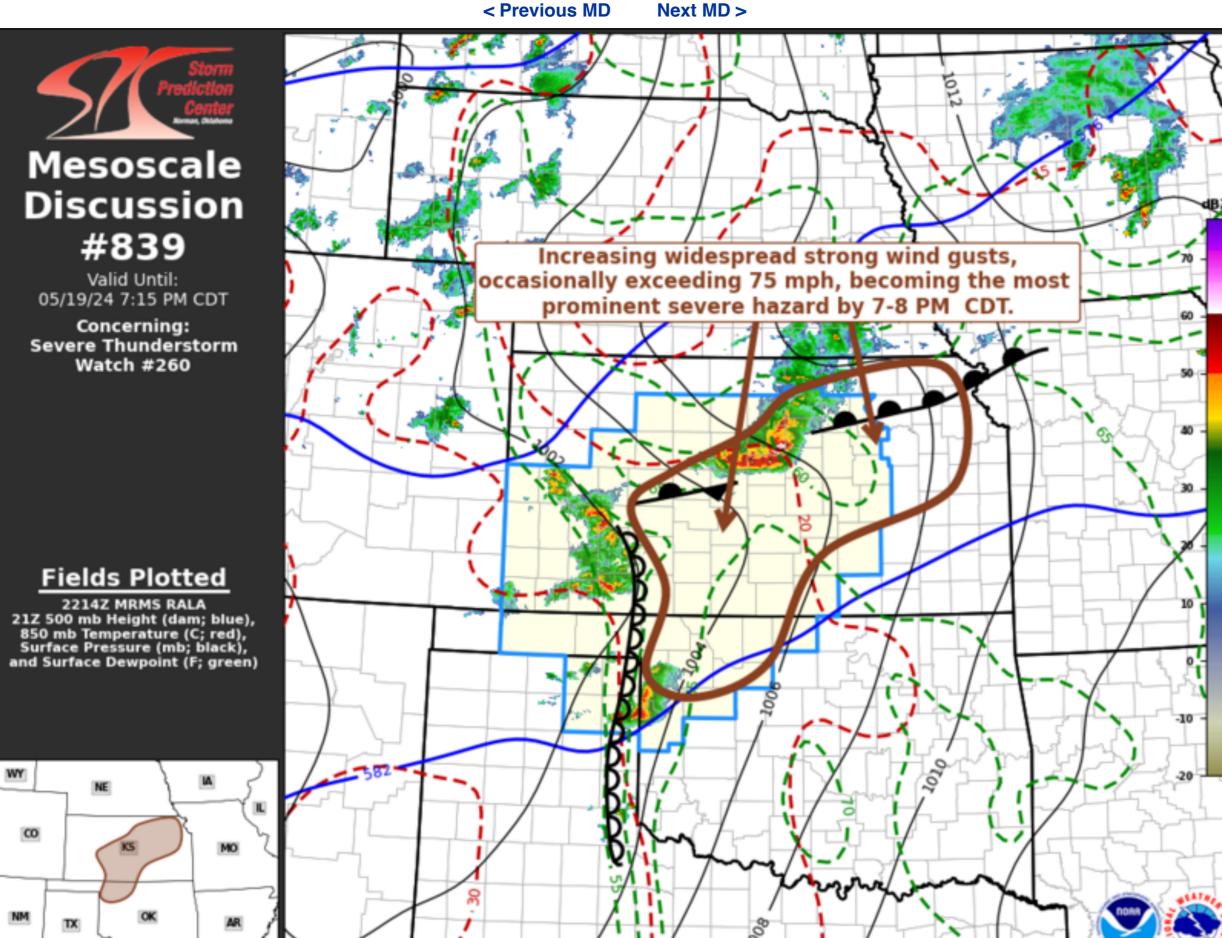
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Mesoscale Discussion 839

News

Organization



Mesoscale Discussion 0839 NWS Storm Prediction Center Norman OK 0517 PM CDT Sun May 19 2024

Areas affected...much of Kansas into northwestern Oklahoma

Concerning...Severe Thunderstorm Watch 260...

Valid 192217Z - 200015Z

The severe weather threat for Severe Thunderstorm Watch 260 continues.

SUMMARY...A couple of clusters of thunderstorms appear likely to continue to gradually evolve and organize during the next couple of hours, with severe wind gusts occasionally exceeding 75 mph becoming the most prominent severe hazard by 7-8 PM CDT.

DISCUSSION...Embedded within 30-40 kt southwesterly deep-layer mean flow, an ongoing intense supercell has been rightward (eastward) propagating toward the Salina KS vicinity. This motion is roughly coincident with a west-southwest to east-northeast oriented warm frontal zone, extending along/north of the Interstate 70 corridor into northeastern Kansas. Given enhanced forcing for ascent associated with low-level convergence and warm advection along this boundary, and fairly sizable boundary-layer temperature/dew point spreads to the south of the front, further upscale growth and evolution into a more prominent bowing structure with strong damaging surface gusts becoming the primary severe hazards seems probable through 23-01Z.

At the same time, as a low-amplitude short wave trough continues to gradually emerge from the southern Rockies, intensifying storms along the dryline north of Garden City KS into the Clinton-Sherman OK vicinity may continue to increase along consolidating eastward propagating outflows, aided by inflow of seasonably moist air characterized by large CAPE to around 3000 J/kg. In the presence of seasonably moderate to strong shear, this activity seems likely to gradually organize. The evolution of one or two increasingly prominent lower/mid-tropospheric mesoscale vortices appears possible, with the quasi-stationary front north of Dodge City into the Russell/Salina vicinities one potential focus for strong, damaging wind gusts.

..Kerr.. 05/19/2024

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

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