

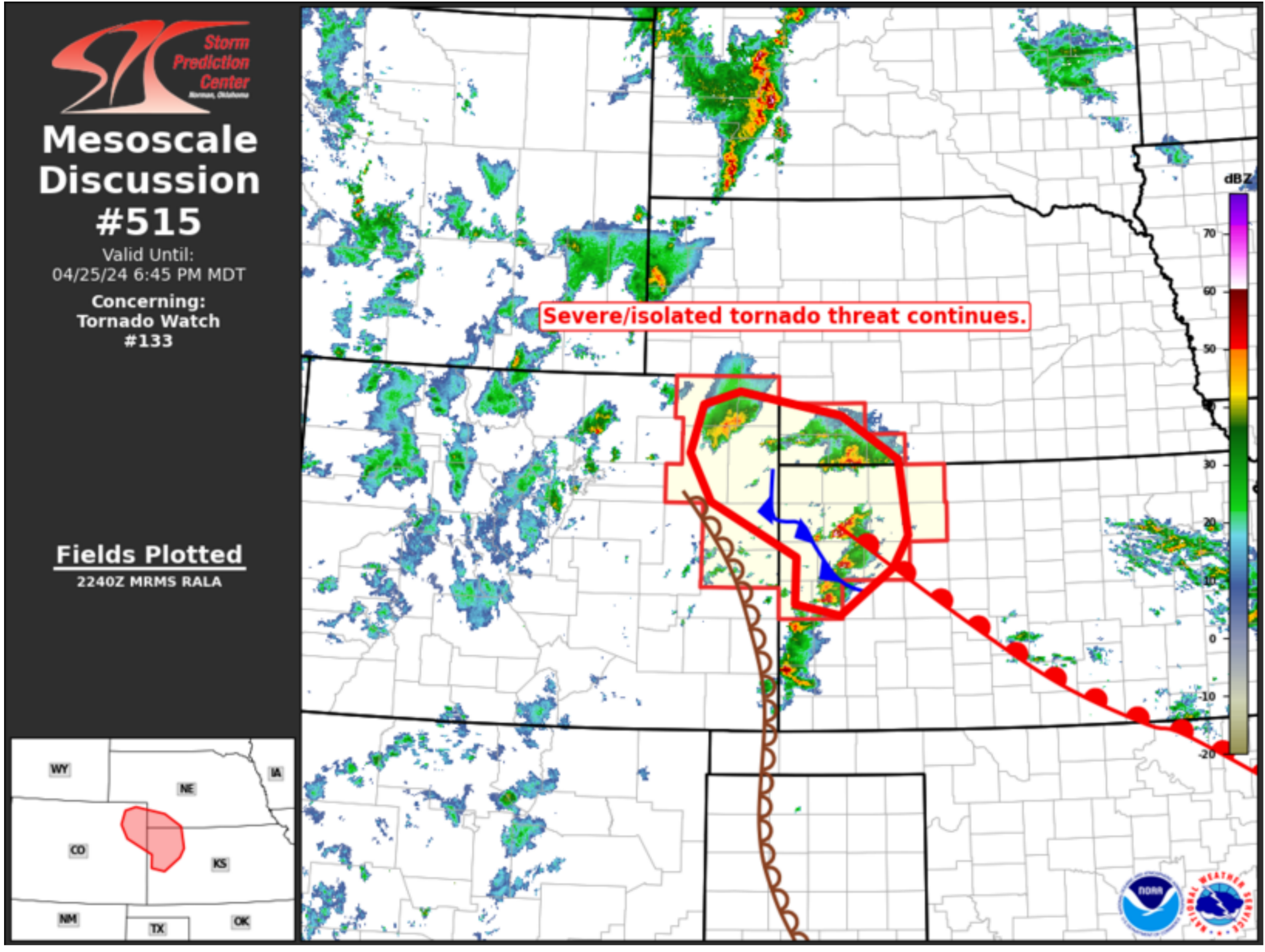
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Mesoscale Discussion 515

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Mesoscale Discussion 0515
 NWS Storm Prediction Center Norman OK
 0542 PM CDT Thu Apr 25 2024

Areas affected...(northeastern Colorado...southwestern Nebraska...and northwestern Kansas

Concerning...Tornado Watch 133...

Valid 252242Z - 260045Z

The severe weather threat for Tornado Watch 133 continues.

SUMMARY...Severe/local tornado risk continues within [WW 133](#), across northwestern Kansas, northeastern Colorado, and southwestern Nebraska early this evening.

DISCUSSION...Latest radar loop shows numerous strong/severe storms developing from just southeast of GLD southward across western Kansas (into Tornado Watch 134), near and ahead of a dryline analyzed over far eastern Colorado. Meanwhile, additional strong/severe storms are ongoing from near the surface low over northeastern Colorado, east-southeastward across southwestern Nebraska and adjacent northwestern Kansas -- to the cool side of a warm front bisecting Kansas from northwest to southeast.

An axis of moderate instability (2000 to 3000 J/kg mixed-layer CAPE) is indicated across the warm sector, bounded by the dryline on the west, and the warm front on the northeast. South-southeasterly low-level flow across this area (veering to east-southeasterly north of the warm front) beneath mid-level south-southwesterlies near 50 kt, is yielding favorable shear for rotating storms -- confirming radar observations.

Storms moving north-northeastward out of northwestern Kansas into southwestern Nebraska should weaken with time, as they move into a more stable airmass north of the warm front. Meanwhile, storms nearer the front, and southward along the dryline, will remain capable of producing very large hail (up to around baseball size) and locally damaging wind gusts. Tornado risk also remains evident, and should increase this evening as a south-southeasterly low-level jet ramps up to in excess of 50 kt with time.

..Goss.. 04/25/2024

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

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