

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

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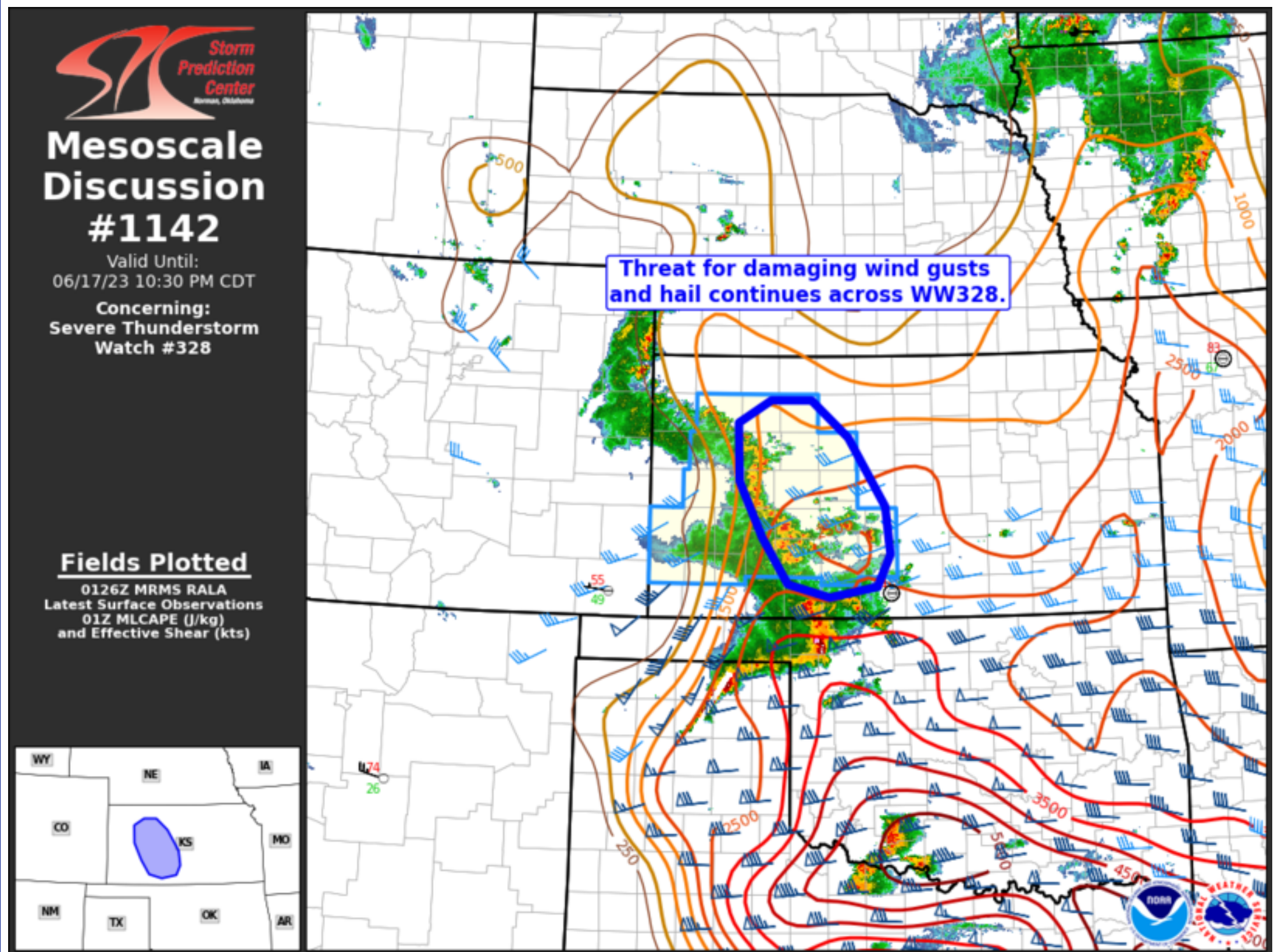
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Mesoscale Discussion 1142

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Mesoscale Discussion #1142
 Valid Until: 06/17/23 10:30 PM CDT
 Concerning: Severe Thunderstorm Watch #328

Fields Plotted
 0126Z MRMS RALA
 Latest Surface Observations
 01Z MLCAPE (J/kg)
 and Effective Shear (kts)

Mesoscale Discussion 1142
 NWS Storm Prediction Center Norman OK
 0828 PM CDT Sat Jun 17 2023

Areas affected...portions of southwest KS

Concerning...Severe Thunderstorm Watch 328...

Valid 180128Z - 180330Z

The severe weather threat for Severe Thunderstorm Watch 328 continues.

SUMMARY...Threat for damaging wind gusts and hail continues across WW328.

DISCUSSION...Convection over southwest KS has grown upscale into a QZCS with a well-defined cold pool. Temperature deficits are roughly 20 F based on current surface observations. Numerous mesovortices have developed along the gust front in the last hour or so, the strongest of which passed very near KDDC around 01z. The 00z DDC observed profile featured an uncapped environment with around 2200 J/kg of MLCAPE, a deep moist layer up to around 2300 m AGL, and around 24 kts of 0-3-km shear with negligible lower-layer SRH. Substantial modification occurred in the following hour, particularly near the ground. VAD profiles just prior to the system's arrival exhibited similar 0-3-km shear values (around 20-25 kts) with stronger low-layer shear and SRH (around 15 kts and 100 J/kg from 0-1 km AGL, respectively). These characteristics are consistent with an environment supportive of repeated mesocyclogenesis along the leading edge of QZCSs. The environment is expected to remain supportive of stronger updrafts and mesovortex generation within the line. These areas will continue to pose a locally higher threat for damaging wind gusts and hail within the broader, severe-wind-producing system. This threat is expected to continue for the next couple of hours as the QZCS progresses eastward through WW328 before encountering less bulk shear and weakening overnight.

..Flournoy.. 06/18/2023

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

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