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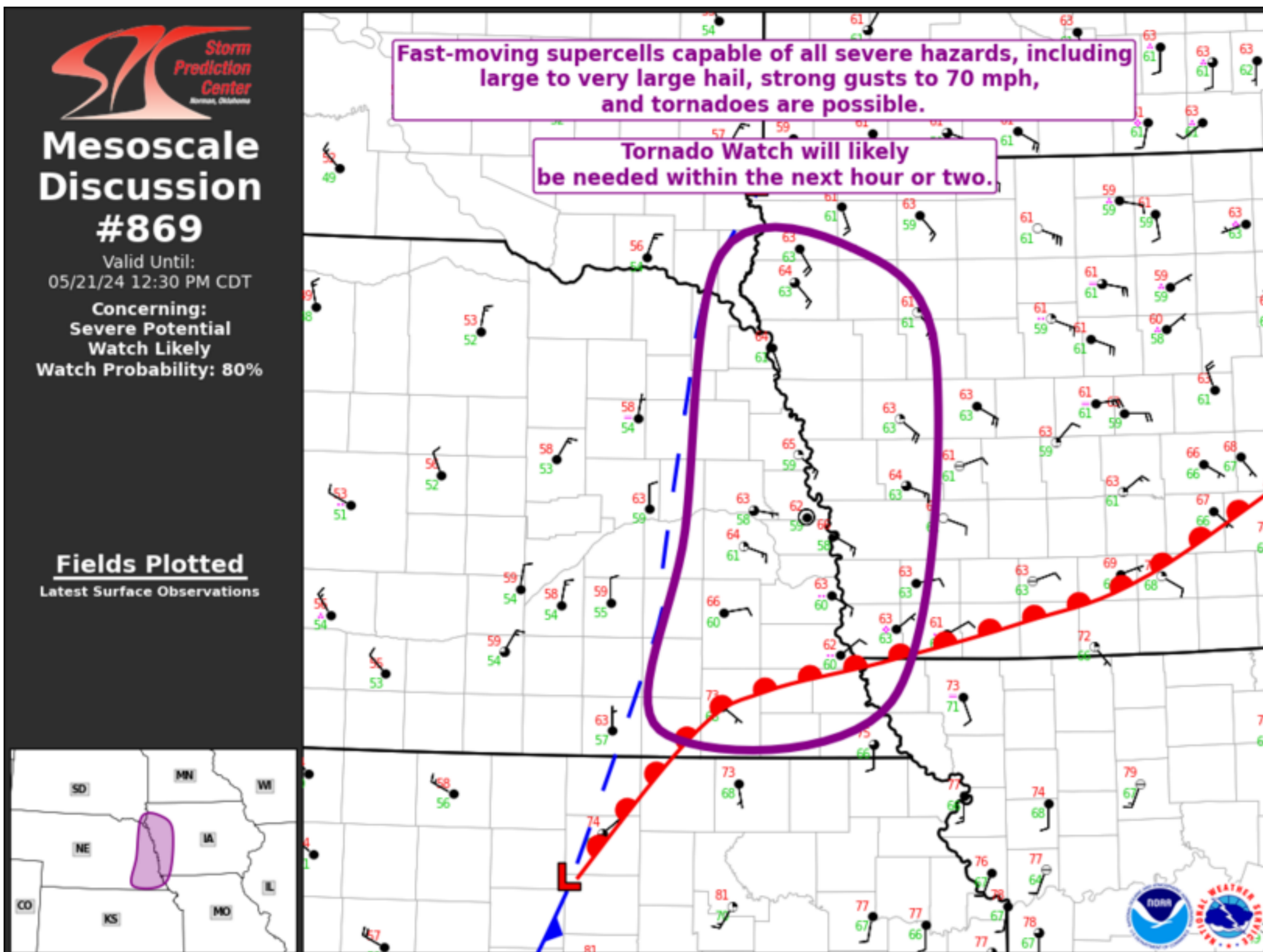
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Mesoscale Discussion 869

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Mesoscale Discussion #869
 Valid Until: 05/21/24 12:30 PM CDT
 Concerning: Severe Potential
 Watch Likely
 Watch Probability: 80%

Fields Plotted
 Latest Surface Observations

Mesoscale Discussion 0869
 NWS Storm Prediction Center Norman OK
 1027 AM CDT Tue May 21 2024

Areas affected...Eastern NE...Western IA...Far Southeast SD

Concerning...Severe potential...Watch likely

Valid 211527Z - 211730Z

Probability of Watch Issuance...80 percent

SUMMARY...Fast-moving supercells capable of all severe hazards will be possible, including large to very large hail, strong gusts up to 70 mph, and tornadoes. A Tornado Watch will likely be needed for portions of the area with in the next hour or two.

DISCUSSION...Recent surface analysis places the primary surface low over north-central KS (just southwest of CNK), with a warm front extending northeastward into southeast NE and then more east-northeastward across southern IA. A cold front also extends from this low southwestward through central KS and the eastern OK Panhandle. There is a secondary surface low farther north near the IA/SD/MN border intersection, with weak surface troughing connecting these two lows.

Given the position of the surface features, the recent thunderstorm activity along the central NE/KS border is likely elevated, initiated by strong ascent attendant to the approaching shortwave trough. However, as the primary surface low moves quickly northeastward, and the warm front correspondingly moves northward, the airmass across eastern NE and western IA (particularly east-central/southeast NE and west-central/southwest IA) is expected to become increasingly supportive of surface-based storms. Within the warm sector, fast-moving supercells capable of all severe hazards will be possible, including large to very large hail, strong gusts up to 70 mph, and tornadoes. Large hail and strong gusts will be possible with the elevated storms as well. Given this severe potential, a Tornado Watch will likely be needed for portions of the area with in the next hour or two.

..Mosier/Guyer.. 05/21/2024

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

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