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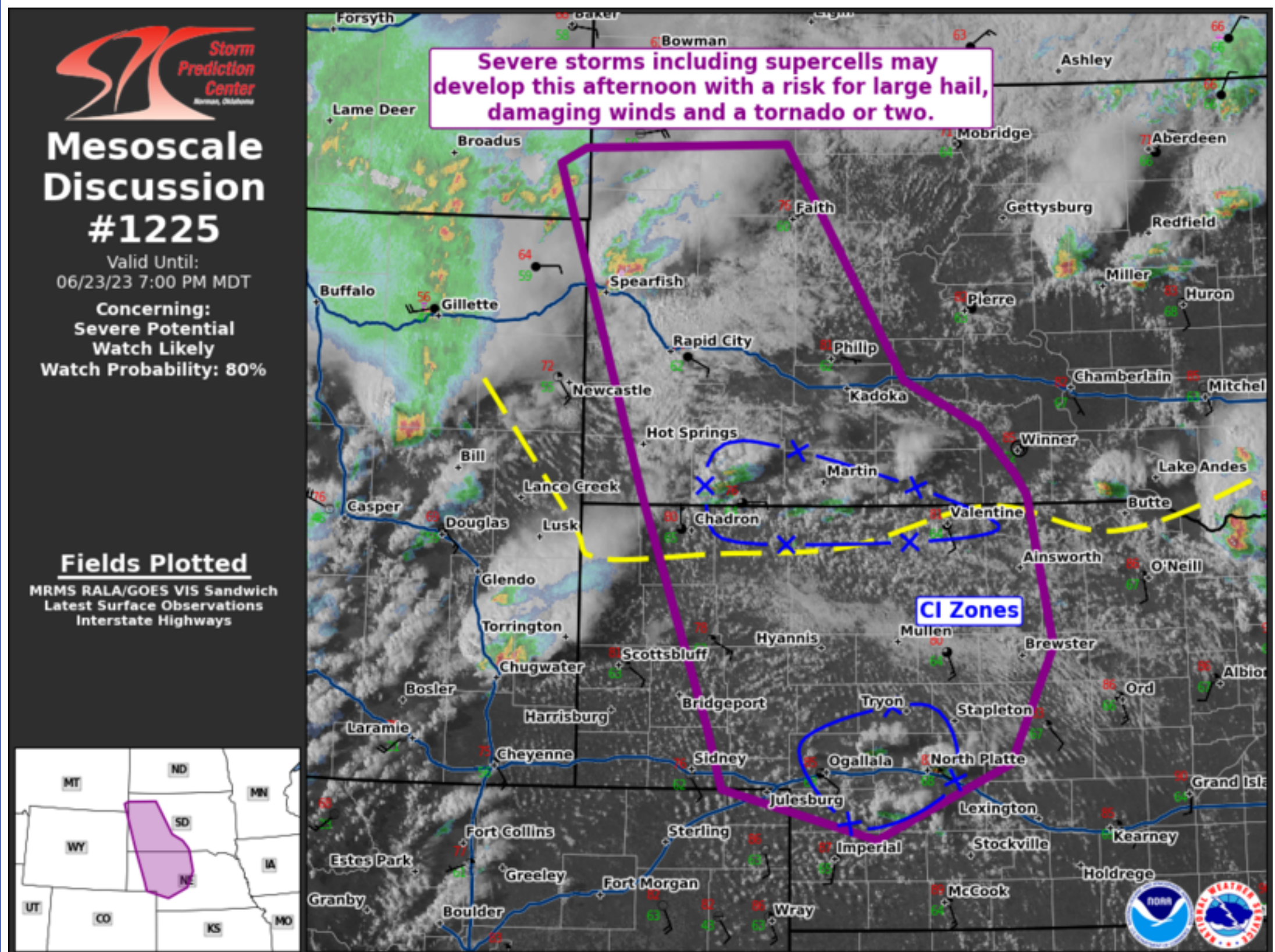
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Mesoscale Discussion 1225

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Mesoscale Discussion #1225
 Valid Until: 06/23/23 7:00 PM MDT
 Concerning: Severe Potential
 Watch Likely
 Watch Probability: 80%

Fields Plotted
 MRMS RALA/GOES VIS Sandwich
 Latest Surface Observations
 Interstate Highways

Mesoscale Discussion 1225
 NWS Storm Prediction Center Norman OK
 0555 PM CDT Fri Jun 23 2023

Areas affected...portions of western South Dakota into central Nebraska

Concerning...Severe potential...Watch likely

Valid 232255Z - 240100Z

Probability of Watch Issuance...80 percent

SUMMARY...Storm development will remain possible this afternoon and early this evening across portions of western SD and central NE. While uncertain, if storms can form ahead of additional storms moving out of eastern WY, supercells capable of all hazards may present enough threat for a new weather watch.

DISCUSSION...Through the afternoon, a broad but capped warm sector across western SD and central NE has slowly destabilized with 1500-2500 J/kg of MLCAPE now evident on SPC mesoanalysis. While thus far forcing for ascent has been minimal, inhibition has slowly waned, and large-scale forcing should increase ahead of a compact mid-level trough moving out of WY. A couple areas of potential CI (see graphic) were noted with agitated cumulus evident on recent visible satellite imagery. Recent hi-res model guidance suggests storm initiation is possible in the next hour or two as the renaming inhibition dissipates. Should storms develop, weak forcing, 40-50 kt of effective shear and moderate buoyancy will support isolated supercells capable of large hail. Some tornado threat may also exist along an east-west oriented baroclinic zone near the NE/SD border where low-level flow is backed and hodographs are larger.

Despite uncertainty a new watch may be needed to cover the potential for storm initiation within the broad warm sector this evening. Greater confidence in severe risk exists with additional storms ongoing currently in eastern WY. Upscale growth should take place over the next few hours with a line of storms likely to emerge into western SD and central NE this evening. Damaging winds and a couple of tornadoes will be possible with this round which is expected after 02z tonight.

..Lyons/Thompson.. 06/23/2023

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

ATTN...WFO...ABR...LBF...UNR...BOU...CYS...BYZ...

LAT...LON 45500407 45530208 43870095 43550023 43209988 43059977
 41999956 41179998 40640123 40990268 41430282 43080347
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