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Mesoscale Discussion 1319

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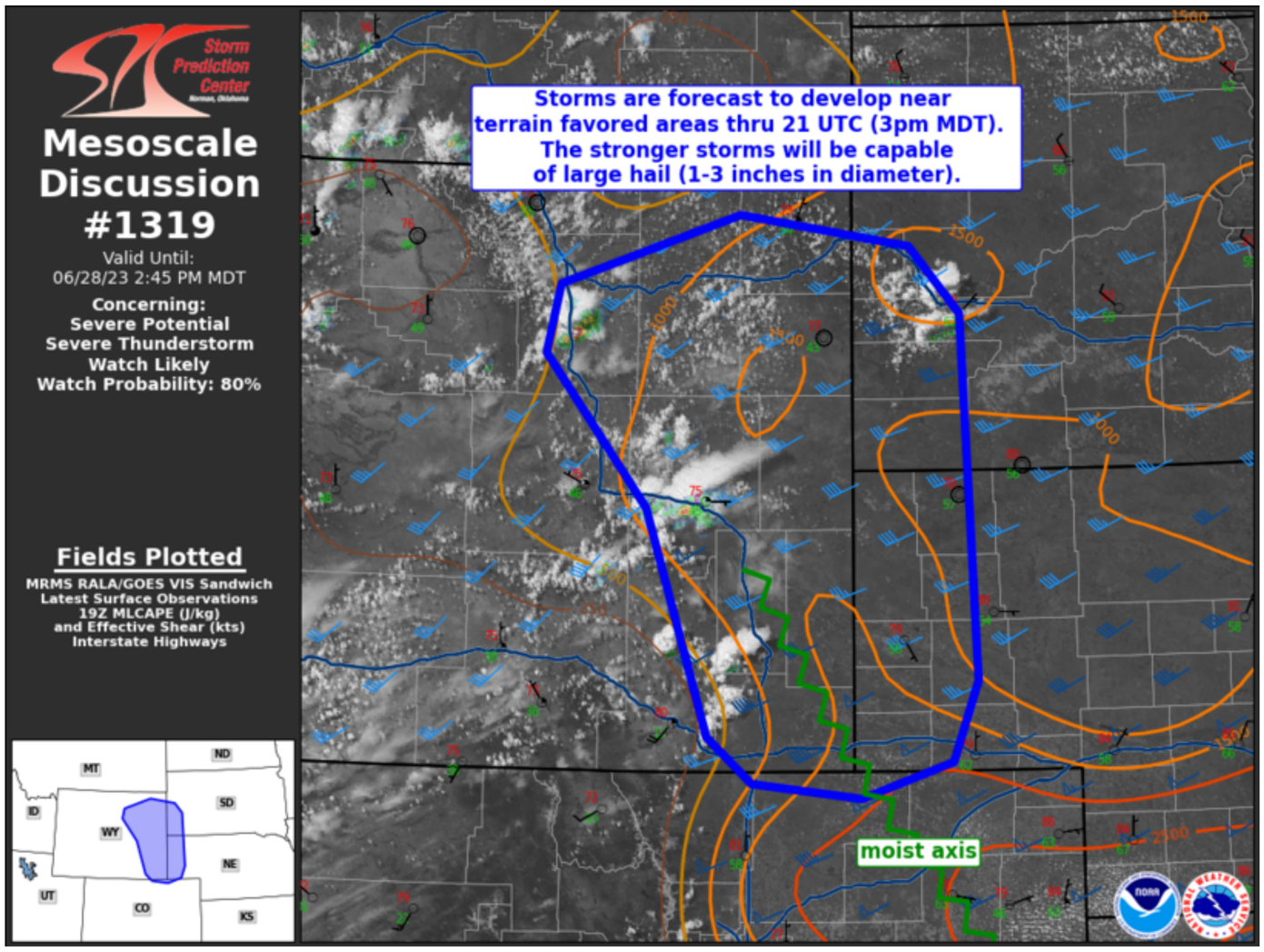

Mesoscale Discussion 1319
NWS Storm Prediction Center Norman OK
0221 PM CDT Wed Jun 28 2023

Areas affected...eastern WY...NE Panhandle...Black Hills

Concerning...Severe potential...Severe Thunderstorm Watch likely

Valid 281921Z - 282045Z

Probability of Watch Issuance...80 percent

SUMMARY...Widely scattered thunderstorms are forecast to develop near terrain favored areas thru 21 UTC (3pm MDT). The stronger storms will be capable of large hail (1-3 inches in diameter) as they organize into supercells during the late afternoon and early evening. A severe thunderstorm watch is likely for most of the discussion area.

DISCUSSION...Visible satellite imagery shows the initial stages of glaciation with thunderstorms near Douglas, WY and convective initiation is likely northwest of Cheyenne prior to 2pm MDT. Surface analysis indicates a moist axis extending from I-70 near the CO/KS border northwestward to near the CO/WY/NE border and into eastern WY. Surface temperatures have warmed into the lower 80s east of the higher terrain wand surface dewpoints range in the 50s. RAP-model forecast soundings show steep low-level and 700-500 mb lapse rates (in excess of 8 deg C/km). Weak low-level upslope flow beneath strengthening southwesterly flow in the mid to upper levels has resulted in an elongated hodograph. The steep lapse rates/moderate buoyancy and hodographs will strongly favor discrete thunderstorms. Once the stronger updrafts become established/mature, supercells capable of large to very large hail will be possible. A brief tornado is possible late this afternoon/early evening. Isolated severe gusts will become a more prevalent threat later this evening as storms move farther east into richer moisture and some storms evolve into a small cluster.

..Smith/Guyer.. 06/28/2023

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

ATTN...WFO...UNR...BOU...CYS...RIW...

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