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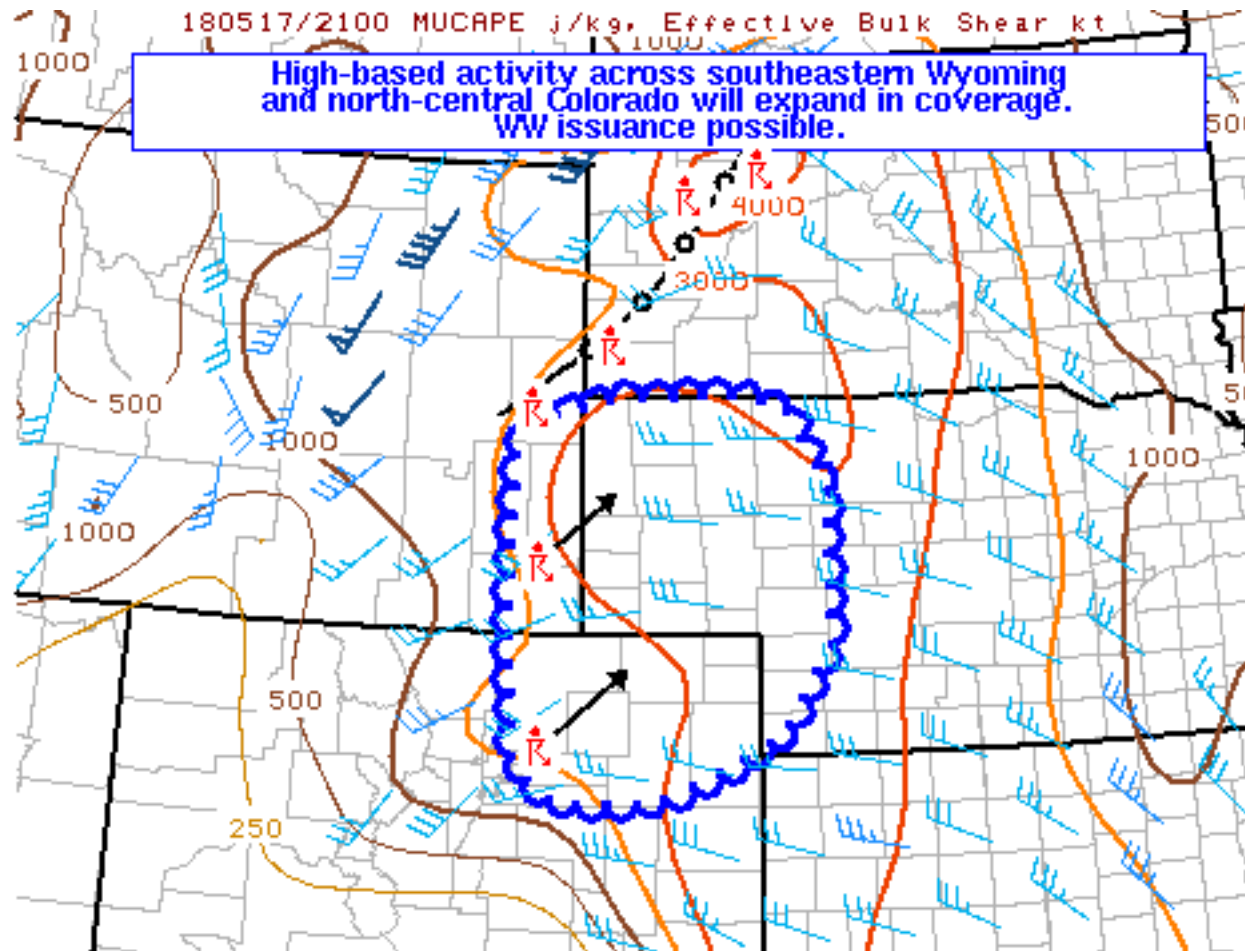
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SPC MCD #0444

Mesoscale Discussion 0444

NWS Storm Prediction Center Norman OK

0519 PM CDT Thu May 17 2018

Areas affected...Western Nebraska...southeastern Wyoming...and
northeastern/north-central Colorado

Concerning...Severe potential...Watch possible

Valid 172219Z - 180015Z

Probability of Watch Issuance...60 percent

SUMMARY...High-based convection will continue to mature across western portions of the discussion area while moving northeastward. Hail and severe wind gusts are likely with the stronger cells and/or linear segments. A WW issuance may be needed during the next couple of hours pending convective trends.

DISCUSSION...Latest GOES-16, lightning, and radar imagery indicate areas of increasing, high-based thunderstorm activity over the past

hour or so. These storms were in a warm, dry near-surface environment, with nearly 50F dewpoint depressions and steep lapse rates through the low and mid-levels. Storms should gradually migrate eastward into areas of better low-level moisture (characterized by 50s dewpoints) and moderate to strong instability (MUCAPE around 3000 J/kg). With time, storms should mature into outflow-dominant cells and forward-propagating linear segments - especially as they reach the better low-level moisture profiles located downstream into the Nebraska Panhandle. Hail and damaging wind gusts are expected with this activity - especially if storms can manage to grow upscale into one or more clusters as suggested by high-resolution model guidance. Convective trends will be monitored, and a severe thunderstorm watch may be needed over the next couple of hours or so.

..Cook/Hart.. 05/17/2018

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

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