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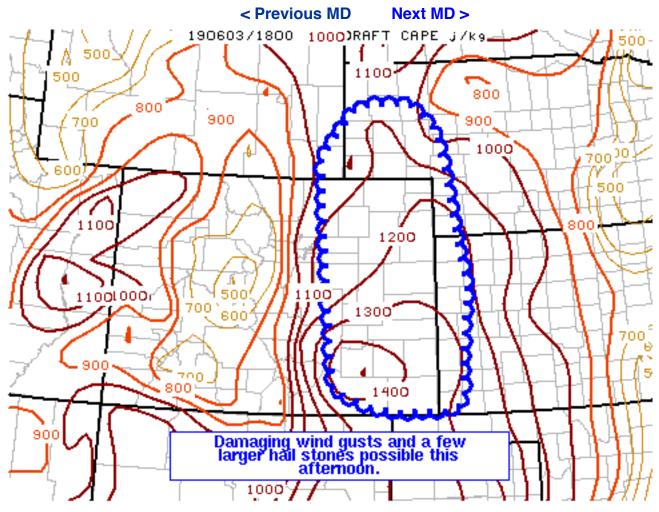
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Mesoscale Discussion 963



SPC MCD #0963

Mesoscale Discussion 0963 NWS Storm Prediction Center Norman OK 0231 PM CDT Mon Jun 03 2019

Areas affected... Eastern Colorado... far western Kansas... far southeast Wyoming...portions of Nebraska Panhandle

Concerning...Severe potential...Watch possible

Valid 031931Z - 032130Z

Probability of Watch Issuance...40 percent

SUMMARY...Storms are developing in response to a weak shortwave across the central Rockies/Raton Mesa. Very well-mixed boundary layer conditions will promote strong/severe wind gusts with this activity as it moves east. A few larger hail stones are possible, but weak deep-layer shear and modest buoyancy will limit this threat. Some upscale growth is expected; however, uncertainty remains on how organized the cold-pool driven threat will be.



DISCUSSION...Modest increase in storm coverage and intensity is expected this afternoon as weak ascent (on water vapor imagery) approaches from the Four Corners. Storms that have initiated along the central Rockies and the Raton Mesa will continue to slowly move east/northeastward into a modestly unstable environment. Dewpoints remain mostly in the low to mid 50s F in within the discussion area, though low 60s F exist farther to the east. Given the well-mixed boundary layer ahead of the activity -- with DCAPE of 1000-1500 J/kg -- storms are expected primarily pose a threat for severe wind gusts. A few large hail stones will also be possible, particularly with any discrete storms, with mid-level lapse rates of around 8-8.5 C/km. Storms will likely struggle to organize with regional VAD profiles showing around 25 kts of 0-6 km shear.

Given the favorable environment for outflow production, a cluster or two of storms may develop and move into western Kansas/Nebraska. Should storms make it far enough east, their intensity may spike as they encounter slightly greater low-level moisture. The need for a WW is unclear at this time as there is uncertainty with regard to where the greatest cold pool organization will occur.

..Wendt/Hart.. 06/03/2019

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

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