


[Site Map](#)
[News Organization](#)

 Search for:
 SPC

 NCEP

 All NOAA

 Local forecast by
 "City, St" or "ZIP"

 Find us on
Facebook

SPC on Facebook

@NWSSPC

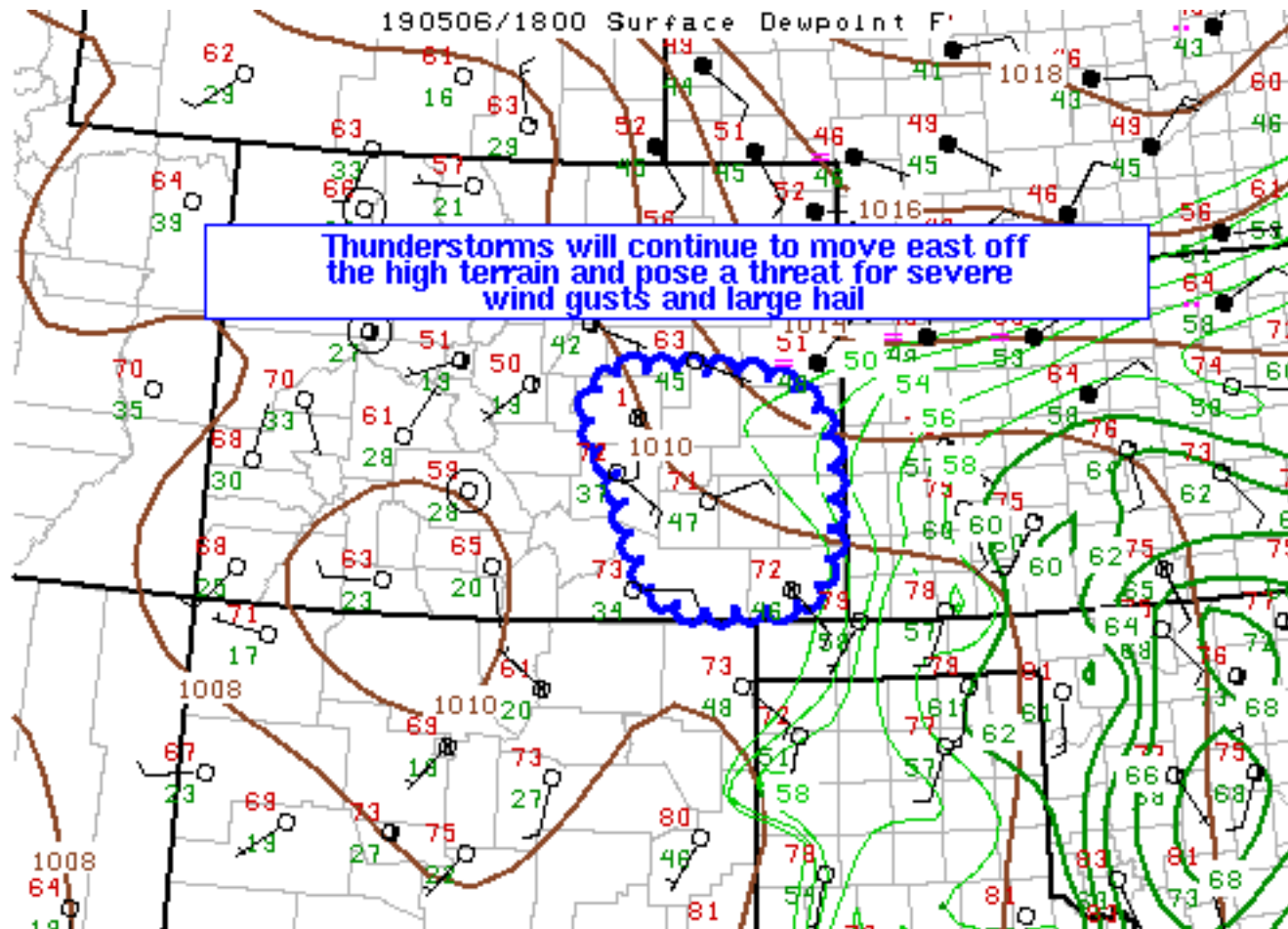
 NCEP Quarterly
 Newsletter

[Home \(Classic\)](#)
[SPC Products](#)
[All SPC Forecasts](#)
[Current Watches](#)
[Meso. Discussions](#)
[Conv. Outlooks](#)
[Tstm. Outlooks](#)
[Fire Wx Outlooks](#)
[RSS Feeds](#)
[E-Mail Alerts](#)
[Weather Information](#)
[Storm Reports](#)
[Storm Reports Dev.](#)
[NWS Hazards Map](#)
[National RADAR](#)
[Product Archive](#)
[NOAA Weather Radio](#)
[Research](#)
[Non-op. Products](#)
[Forecast Tools](#)
[Svr. Tstm. Events](#)
[SPC Publications](#)
[SPC-NSSL HWT](#)
[Education & Outreach](#)
[About the SPC](#)
[SPC FAQ](#)
[About Tornadoes](#)
[About Derechos](#)
[Video Lecture Series](#)
[WCM Page](#)
[Enh. Fujita Page](#)
[Our History](#)
[Public Tours](#)
[Misc.](#)
[Staff](#)
[Contact Us](#)
[SPC Feedback](#)

Mesoscale Discussion 556

[< Previous MD](#)
[Next MD >](#)

190506/1800 Surface Dewpoint F


SPC MCD #0556

Mesoscale Discussion 0556

NWS Storm Prediction Center Norman OK

0215 PM CDT Mon May 06 2019

Areas affected...Portions of southeast Colorado

Concerning...Severe potential...Watch possible

Valid 061915Z - 062115Z

Probability of Watch Issuance...40 percent

SUMMARY...Thunderstorms will continue to move east off the high terrain and pose a threat for severe wind gusts and large hail. A Severe Thunderstorm Watch may be needed by 21z.

DISCUSSION...Very steep mid-level lapse rates and strong heating over the Sangre De Cristo Mountains and the Raton Mesa has contributed to widely-scattered thunderstorm development over the MCD area. Diurnal lowering of surface pressures has increased the upslope component of the flow in the last hour from Clayton, NM



northward. Although upper 30s to upper 40s surface dewpoints is currently limiting MLCAPE to a few hundred J/kg, continued heating and westward near-surface moisture advection from a pool of low-to-mid 50s dewpoints over far southeast Colorado and southwest Kansas will contribute to MLCAPE of 500-1250 J/kg by mid afternoon, which should feed into the scattered thunderstorms moving east off the high terrain. The deeply-mixed boundary layer and moderate to high relative humidity aloft could support severe wind gusts with the stronger storms, and cloud-layer shear of 40-50 kt should support some mid-level rotation that will add to the severe hail threat inherent in the very steep mid-level lapse rates. Although the severe threat may remain isolated enough to prevent a Watch in the next hour, a Severe Thunderstorm Watch may be needed by 21z.

The severe wind and hail threat is expected to continue east of this MCD area as the storms move into the higher boundary-layer moisture in southwest Kansas, and as the low-level winds strengthen and back toward late afternoon. However, because of uncertainty in convective mode at that time, and in the succeeding few hours, this area will be included in an MCD at a later time.

..Coniglio/Guyer.. 05/06/2019

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

ATTN...WFO...GLD...PUB...BOU...

LAT...LON 37120289 37110371 37250412 37780437 38200450 38730486
 39130472 39190405 39160324 39070257 38780227 38350215
 37770217 37410222 37140258 37120289

[Top/All Mesoscale Discussions/Forecast Products/Home](#)

Weather Topics:

[Watches](#), [Mesoscale Discussions](#), [Outlooks](#), [Fire Weather](#), [All Products](#), [Contact Us](#)

NOAA / National Weather Service
 National Centers for Environmental Prediction
 Storm Prediction Center
 120 David L. Boren Blvd.
 Norman, OK 73072 U.S.A.
spc.feedback@noaa.gov
 Page last modified: May 06, 2019

[Disclaimer](#)
[Information Quality](#)
[Help](#)
[Glossary](#)

[Privacy Policy](#)
[Freedom of Information Act \(FOIA\)](#)
[About Us](#)
[Career Opportunities](#)