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

City, St | Go

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

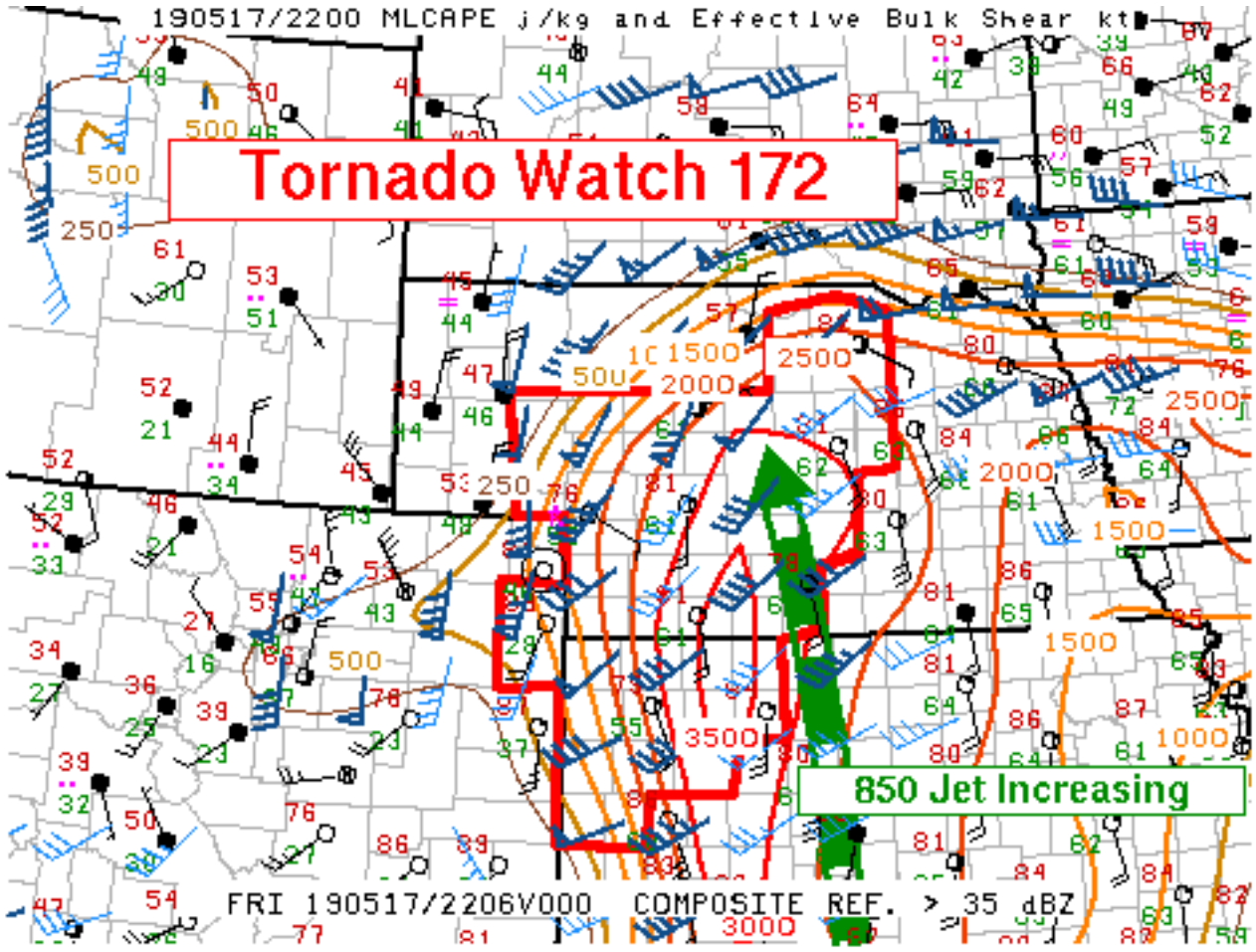
Education & Outreach
- About the SPC
- SPC FAQ
- About Tornadoes
- About Derechos
- Video Lecture Series
- WCM Page
- Enh. Fujita Page
- Our History
- Public Tours

Misc.
- Staff

Contact Us
- SPC Feedback

Mesoscale Discussion 653

< Previous MD Next MD >



SPC MCD #0653

Mesoscale Discussion 0653
NWS Storm Prediction Center Norman OK
0545 PM CDT Fri May 17 2019

Areas affected...Northwest Kansas...Portions of Western/Central Nebraska

Concerning...Tornado Watch 172...

Valid 172245Z - 180045Z

The severe weather threat for Tornado Watch 172 continues.

SUMMARY...The threat for tornadoes and large hail will continue in Tornado Watch 172. Discrete storms moving out of northwest Kansas into western/central Nebraska will likely pose the greatest threat for tornadoes as the low-level flow increases ahead of them.

DISCUSSION...In the wake of mid-level convection dewpoints ahead of a discrete supercell moving out of northwest Kansas have increased to the low to mid 60s. Strong pressure falls in the vicinity of the

surface boundary have caused low-level winds to back to SSE. Regional VAD wind profiles have shown generally straight hodographs which has led to observed storm splits and a few instances of destructive interference. A 21Z NSSL research sounding near LBF showed weak capping and some weak winds within the 850-700 mb layer, likely due to the passing elevated convection. With time, the low-level jet is forecast to increase across north-central Kansas and into portions of central Nebraska. This will aid in low-level moisture transport and an increase in low-level hodograph curvature with time. Any discrete storm within this environment will be capable of strong low-level rotation and a risk for tornadoes. Large hail will also remain a threat with mid-level lapse rates of 8.5-9 C/km and around 50 kts of effective shear.

The current thinking is that the greatest threat for tornadoes will come from storms moving into Nebraska from northwest Kansas. Farther north, nearer the boundary, storms that have formed have generally moved north of the front.

..Wendt.. 05/17/2019

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

ATTN...WFO...GID...LBF...DDC...GLD...PUB...BOU...CYS...

LAT...LON 38270204 39590207 39570272 40450274 40430201 41040204
41030260 42060270 42089974 42759970 42899892 42739833
41419833 41399876 40709879 40619920 40069920 39989966
39159963 39130011 38700021 38700109 38260112 38270204

Top/All Mesoscale Discussions/Forecast Products/Home

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 18, 2019