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

Find us on Facebook
SPC on Facebook

@NWSSPC

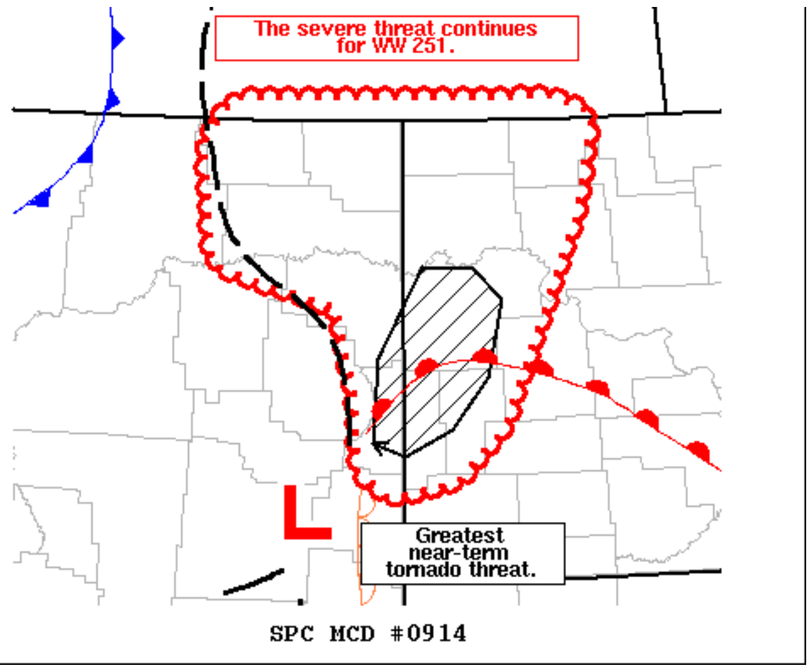
NCEP Quarterly Newsletter

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

USA.gov Government Made Easy

Mesoscale Discussion 914

< Previous MD Next MD >



SPC MCD #0914

Mesoscale Discussion 0914
NWS Storm Prediction Center Norman OK
0830 PM CDT Thu Jun 10 2021

Areas affected...Western North Dakota

Concerning...Tornado Watch 251...

Valid 110130Z - 110330Z

The severe weather threat for Tornado Watch 251 continues.

SUMMARY...The severe threat continues for WW 251. The greatest near-term tornado risk will likely persist across west-central ND were training embedded supercells may continue. Developing convection across northeast MT may pose a tornado risk, but confidence is somewhat low.

DISCUSSION...Thunderstorms that initially developed across far eastern MT have only gradually moved into west/northwest ND over the past 1-2 hours. This is largely due to meridional flow aloft and weak synoptic forcing (the main cold front remains displaced to the west). This has resulted in a broken line of training convection from near KD50 in northwest ND to near KGDV in eastern MT. Although low-level shear remains very favorable for a tornado threat across northwest ND (as noted by high 0-1 km SRH values in the KMBX VWP), training stratiform and convective precipitation has cooled surface temperatures and reduced low-level lapse rates. This may hinder the potential for surface-based convection and the overall tornado threat to some degree (though severe hail/wind remain possible).

Further south in west-central ND, persistent warm/moist advection into the southern end of the line is supporting embedded supercells that have produced tornadoes over the past 2 hours. 100-200 m2/s2 ESRH (per RAP mesoanalysis) near the surface warm front will continue to support the tornado threat in the near term. Gradual cold pool amalgamation along the line and interactions with convection emerging from the west/southwest out of central MT should limit the tornado potential after 03 UTC.

Developing convection is noted along a surface trough/remnant outflow boundary across northeast MT. Favorable instability and low-level shear along and immediately to the east of the boundary may support a small corridor for a tornado threat, but cooler temperatures closer to the ND border and storm interactions introduce uncertainty for this potential.

..Moore.. 06/11/2021

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

ATTN...WFO...BIS...BYZ...GGW...

LAT...LON 46650445 47150450 47740467 48010593 48810605 49150578
49160350 49150244 49030207 48360226 47550271 46960302
46580348 46470414 46650445

Top/All Mesoscale Discussions/Forecast Products/Home

Weather Topics:
Watches, Mesoscale Discussions, Outlooks, Fire Weather, All Products, Contact Us