



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

Find us on Facebook
SPC on Facebook

@NWSSPC

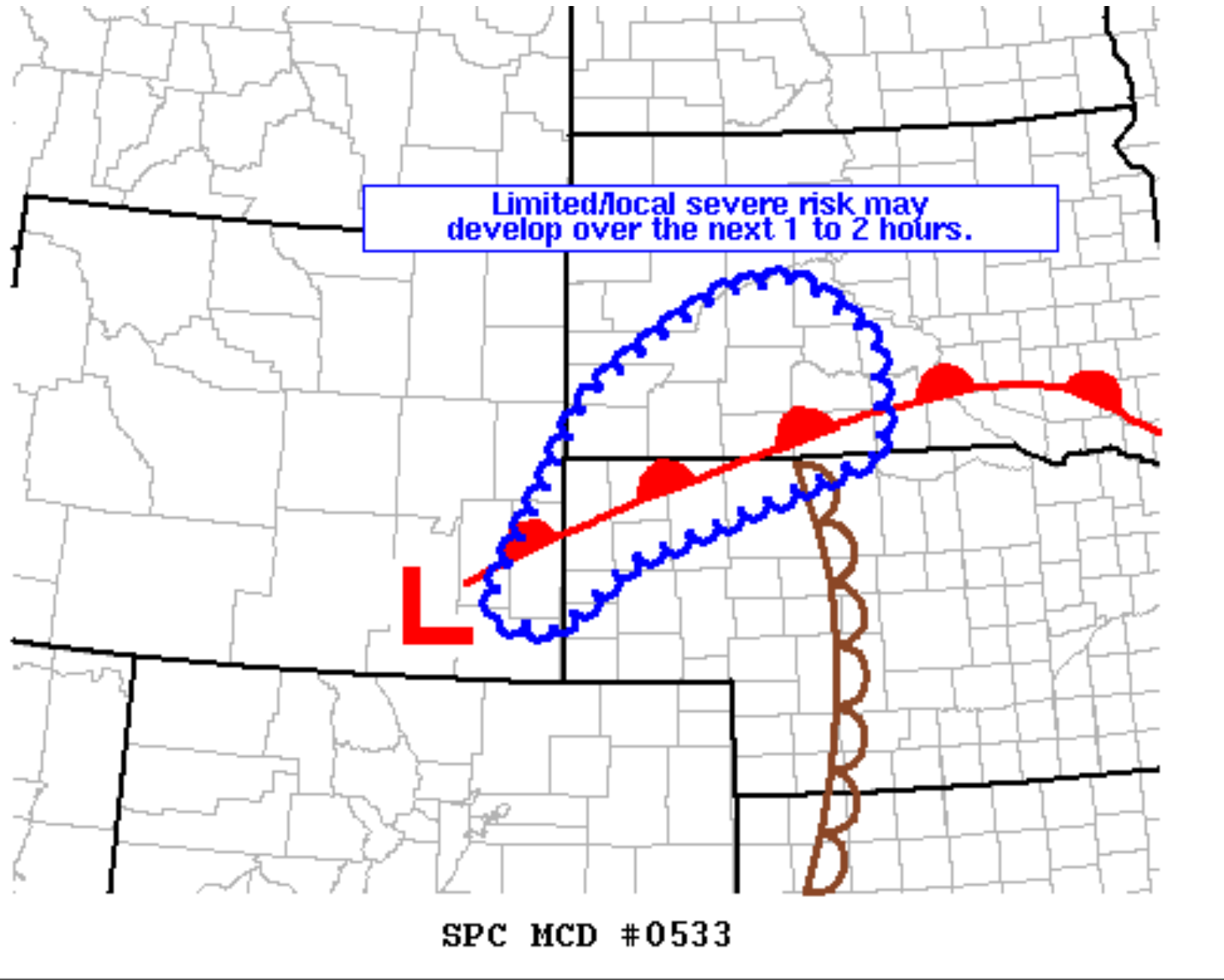
NCEP Quarterly Newsletter

- 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 533

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



Mesoscale Discussion 0533
NWS Storm Prediction Center Norman OK
0338 PM CDT Fri Apr 22 2022

Areas affected...portions of southeastern Wyoming and into parts of the Nebraska Panhandle and adjacent southwestern South Dakota

Concerning...Severe potential...Watch possible

Valid 222038Z - 222145Z

Probability of Watch Issuance...40 percent

SUMMARY...Isolated/high-based storm development may occur over the next hour or so, posing some risk for locally gusty/damaging winds and hail. Due to anticipated/isolated nature of the risk, WW issuance is not anticipated in the short term. Greater risk, farther to the north and east, is expected to evolve 2 to 3 hours from now, which would likely require WW consideration.

DISCUSSION...Latest surface analysis places a low west of Cheyenne, with a warm front arcing northeastward across northern portions of the Nebraska Panhandle and into southern South Dakota. Meanwhile, a dryline has mixed eastward into western Nebraska/western Kansas, with surface dewpoints in the teens and 20s to the west of this boundary.

Visible satellite shows development of high-based cumulus over the higher terrain west and southwest of Cheyenne, but with more substantial cumulus congestus developing at the top of a deep/well-mixed boundary layer over eastern Laramie/southern parts of Platte and Goshen Counties. High-based cumulus is also developing in northern portions of the Nebraska Panhandle at this time, in the vicinity of the warm front.

While instability remains limited across this area, continued cumulus development may lead to initiation of a high-based storm or two across this area. With veering/increasing flow with height yielding 0-6km shear supportive of organized/rotating storms, gusty/locally damaging winds would be possible, with this potential aided by the deep/dry sub-cloud layer. Additionally, hail would be possible, given greater instability with northeastward extent along the warm front.

Later, storms are expected to develop farther northeast into portions of South Dakota near/north of the warm front, initially in the vicinity of the Black Hills. With access to more unstable air, these storms would likely pose more prolific severe risk, and likewise warrant more serious WW consideration.

..Goss/Guyer.. 04/22/2022

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

ATTN...WFO...ABR...LBF...UNR...CYS...

LAT...LON 41550480 41790481 43540374 44450213 44600112 44040017
43030014 42080326 41480409 41550480

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

Weather Topics:

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

National Weather Service • Since 1870

National Weather Service • Since 1870