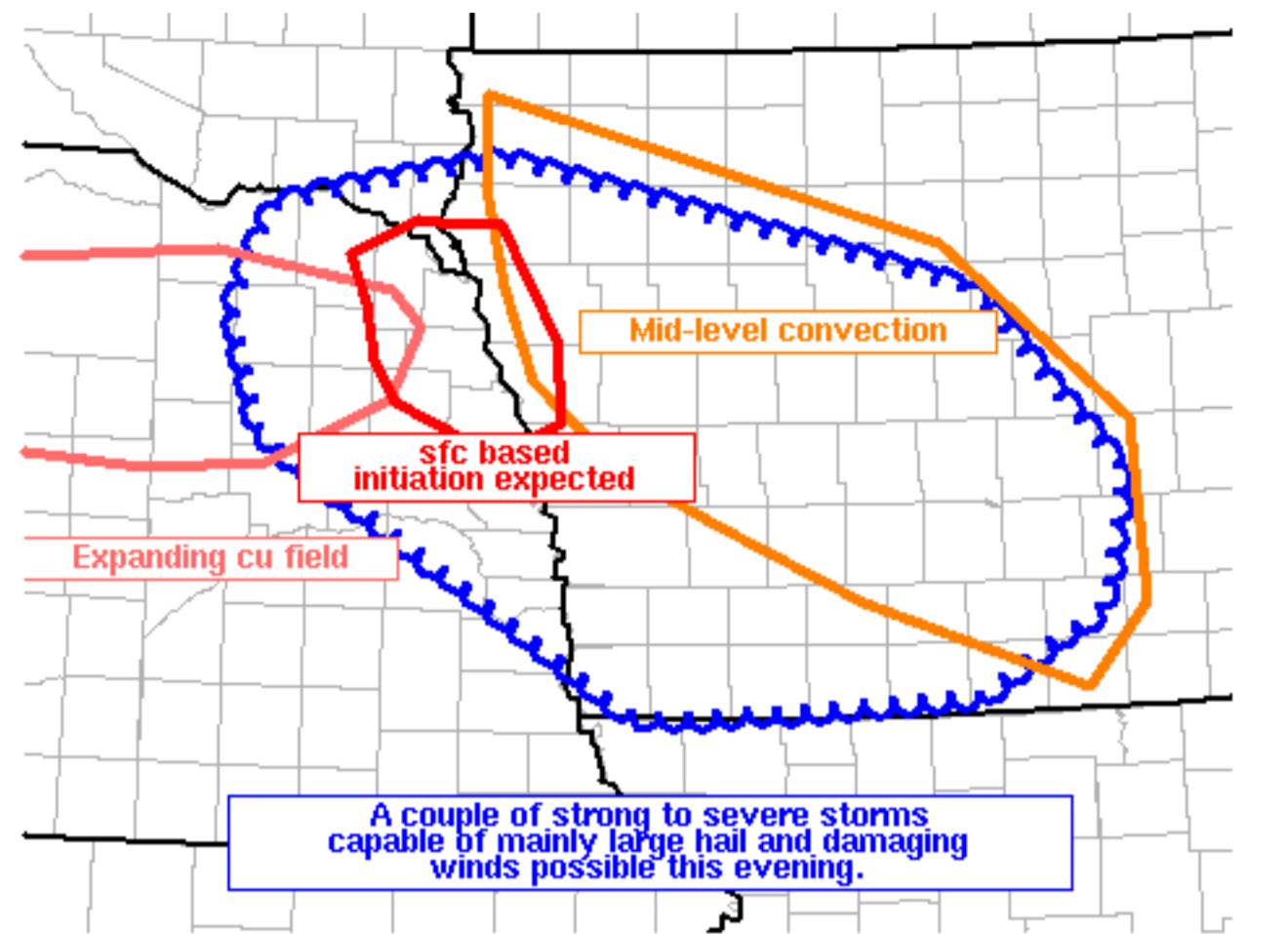


Local forecast by
"City, St" or "ZIP"City, St Go

Mesoscale Discussion 1063

< Previous MD Next MD >



Mesoscale Discussion 1063
NWS Storm Prediction Center Norman OK
0341 PM CDT Tue Jun 22 2021

Areas affected...Northeast Nebraska and western Iowa

Concerning...Severe potential...Watch possible

Valid 222041Z - 222245Z

Probability of Watch Issuance...40 percent

SUMMARY...A couple of strong to severe storms capable of mainly large hail and damaging winds possible this evening.

DISCUSSION...Mid-level showers and occasional thunderstorms have been present across western Iowa for much of the day thus far. This activity is likely a manifestation of the mid-level moisture and steep lapse rates in a region of isentropic ascent. Therefore, if/when the MLCIN can erode across this region, surface based storm development is anticipated.

A well developed cu field has been advancing eastward across Nebraska over the last few hours with its eastward extent closely following the -25 J/kg MLCIN contour from SPC mesoanalysis. Linear extrapolation and forecast MLCIN from the RAP would suggest this cu field may advance to near the NE/IA border between 21 and 22Z. This will be the most likely time for surface based storm development as a minimally capped low-level environment spreads beneath the plume of better mid-level moisture and isentropic ascent. The window of opportunity for storm based storm development is narrow, but the timing appears favorable and the HRRR also supports the idea of storms developing around 21Z in the region of Sioux City, IA.

Any stronger storms which develop will likely be supercellular in nature given 50 to 55 kts of effective shear per OAX VWP. These storms will pose a threat for severe hail and damaging winds. Any storms which develop are only expected to last a few hours before boundary layer cooling and subsequent increasing inhibition will likely bring and end to strong storms. While storm intensity is expected to be sufficient for a severe thunderstorm watch, storm coverage and longevity may be too limited.

..Bentley/Hart.. 06/22/2021

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

ATTN...WFO...DMX...FSD...OAX...

LAT...LON 41229655 41789765 42329784 42789764 43019625 42429347
 41619263 41059274 40679348 40639438 40599545 41229655

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

Weather Topics:

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