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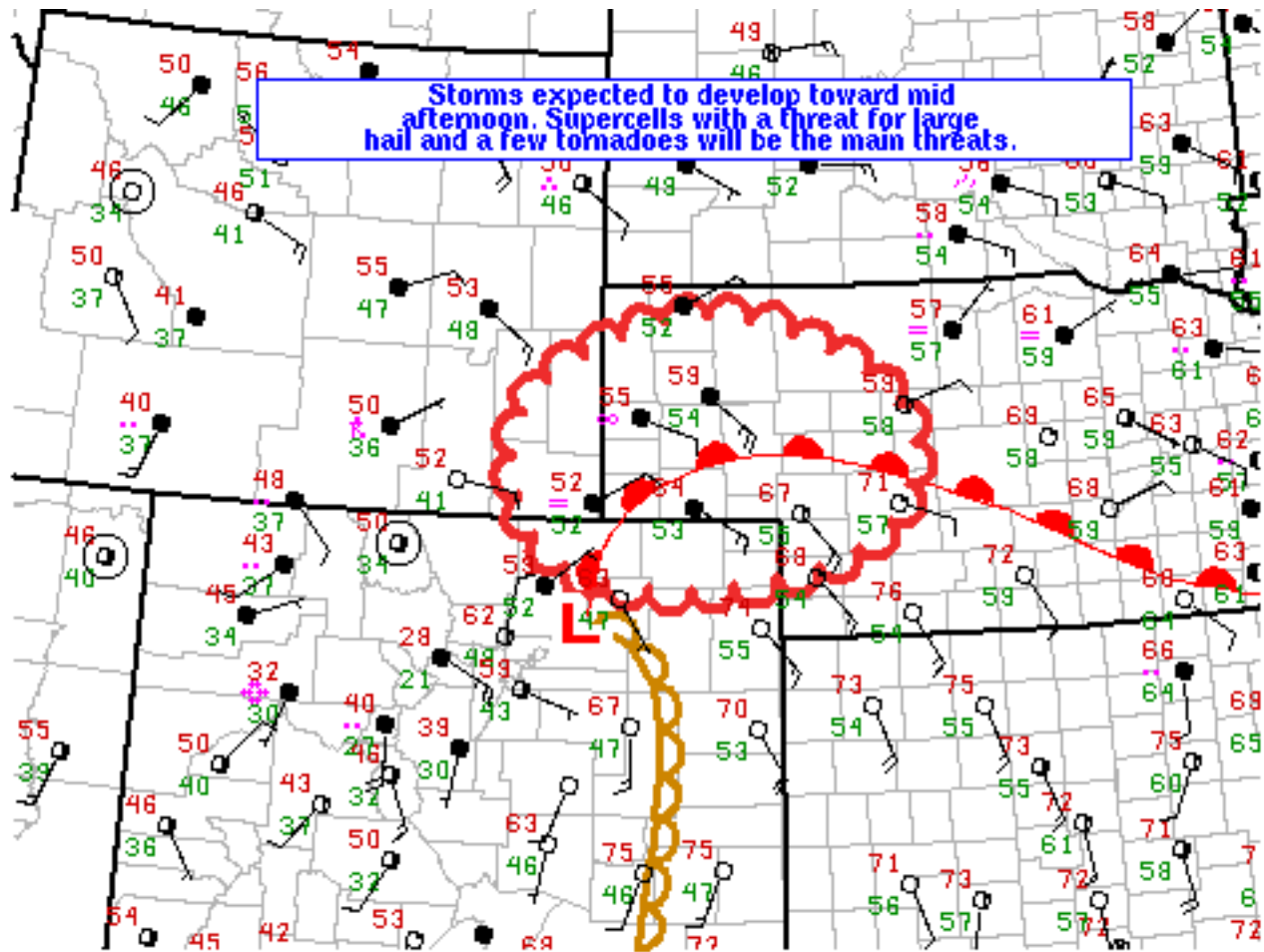
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Mesoscale Discussion 646

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SPC MCD #0646

MESOSCALE DISCUSSION 0646
 NWS STORM PREDICTION CENTER NORMAN OK
 0114 PM CDT FRI MAY 15 2015

AREAS AFFECTED...WRN NEB...SERN WY AND NERN CO

CONCERNING...SEVERE POTENTIAL...WATCH LIKELY

VALID 151814Z - 152015Z

PROBABILITY OF WATCH ISSUANCE...80 PERCENT

SUMMARY...STORMS ARE EXPECTED TO DEVELOP THIS AFTERNOON FROM NERN CO INTO WRN NEB AND SERN WY. SUPERCELLS WITH LARGE HAIL WILL BE THE MAIN THREAT...BUT DAMAGING WIND AND FEW TORNADOES WILL ALSO BE POSSIBLE.

DISCUSSION...EARLY THIS AFTERNOON A WARM FRONT EXTENDS FROM S SFC LOW IN NERN CO THROUGH SWRN NEB AND EWD THROUGH SERN NEB. DRYLINE EXTENDS SWD FROM THE LOW THROUGH ERN CO. MORNING CONVECTION HAS DISSIPATED...AND RESIDUAL CLOUDS HAVE SHIFTED NORTH OF WARM FRONT



OVER MUCH OF THIS REGION. THUS STRONG DIABATIC WARMING WILL RESULT IN DESTABILIZATION OF THE WARM SECTOR WHERE DEWPOINTS ARE CURRENTLY IN THE MID 50S AND STEEP MID LEVEL LAPSE RATES ARE IN PLACE. MLCAPE SHOULD INCREASE TO AROUND 1500-2000 J/KG. TRENDS IN SATELLITE IMAGERY INDICATE BELT OF DEEPER ASCENT ACCOMPANYING A NEWD EJECTING SHORTWAVE TROUGH IS ALREADY SPREADING THROUGH NCNTRL CO AND SCNTRL WY. AS THIS FORCING INTERACTS WITH DESTABILIZING BOUNDARY LAYER...STORMS ARE EXPECTED TO DEVELOP INITIALLY OVER NERN CO THEN FARTHER NEWD ALONG DRYLINE AND WARM FRONT. DEEP SHEAR PROFILES FROM 35-40 KT WILL SUPPORT ORGANIZED STORMS INCLUDING SUPERCELLS.

..DIAL/THOMPSON.. 05/15/2015

ATTN...WFO...LBF...BOU...CYS...

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