DAY 1 CONVECTIVE OUTLOOK
NWS STORM PREDICTION CENTER NORMAN OK
0300 PM CDT FRI JUL 11 2008

VALID 112000Z - 121200Z

...THERE IS A SLGT RISK OF SVR TSTMS ACROSS MUCH OF THE UPPER MIDWEST INTO THE CENTRAL PLAINS...

...UPPER MIDWEST INTO CENTRAL PLAINS...

WITH THE STRONG UPPER TROUGH CONTINUING TO SHIFT EASTWARD OVER THE NORTHERN HIGH PLAINS PER WATER VAPOR IMAGERY...MID AFTERNOON SURFACE ANALYSIS REFLECTS A CONTINUALLY DEEPENING 998 MB SURFACE LOW ACROSS THE FAR EASTERN DAKOTAS...WITH THE ASSOCIATED COLD FRONT EXTENDING SOUTH-SOUTHWESTWARD INTO EAST CENTRAL SD AND NORTHERN/WESTERN NEB. EASTWARD FROM THE SURFACE LOW...A ROUGHLY NORTHWEST-SOUTHEAST ORIENTED WARM FRONT CONTINUES TO LIFT NORTHWARD ACROSS NORTHWEST/CENTRAL MN AND NORTHWEST WI. A VERY WARM BOUNDARY LAYER IS IN PLACE WITHIN THE WARM SECTOR...WITH SURFACE DEWPOINTS IN THE UPPER 60S/LOWER 70S F CONTRIBUTING TO STRONG INSTABILITY WITH 3000-4500 J/KG MLCAP ACROSS THE FAR EASTERN DAKOTAS AND MUCH OF MN PER RUC-BASED OBJECTIVE ANALYSIS.

A STRONG CAP IN PLACE PER MORNING 12Z RAOBS WILL LIKELY BE OVERCOME DURING THE NEXT SEVERAL HOURS IN VICINITY OF THE SYNOPTIC COLD FRONT /AND A SUBTLE PREFRONTAL TROUGH/ AS LARGE SCALE FORCING FOR ASCENT OVERSPORES THE REGION. AS APPEARS TO ALREADY BE OCCURRING...INITIAL DEEP CONVECTIVE DEVELOPMENT APPEARS LIKELY INITIALLY ACROSS THE FAR EASTERN DAKOTAS INTO NORTHERN/CENTRAL MN. THE COMBINATION OF VERY FAVORABLE THERMODYNAMIC PARAMETERS AND EFFECTIVE SHEAR OF 40-50 KNOTS SUGGEST SUPERCELL STRUCTURES ARE LIKELY...CAPABLE OF VERY LARGE HAIL AND DAMAGING WINDS. A RISK FOR TORNADOES APPEARS TO BE RELATIVELY MAXIMIZED NEAR THE SURFACE WARM FRONT ACROSS NORTHERN/CENTRAL MN /AND PERHAPS NORTHWEST WI/...WHERE BACKED SOUTHEASTERLY LOW LEVEL WINDS AND LOW LCL VALUES ARE IN PLACE. ACTIVITY WILL LIKELY SPREAD EASTWARD THROUGH THE EVENING...AFFECTING MUCH OF MN/WI THROUGH THE NIGHT...WITH POTENTIAL FOR UPSCALE DEVELOPMENT INTO ONE OR MORE SEVERE MCS/S LATER THIS EVENING. SUPERCELLS AND BOW/LEWP STRUCTURES ARE EXPECTED TO MAINTAIN A RISK OF DAMAGING WINDS AND HAIL ACROSS THE REGION WELL AFTER DARK.

FARTHER SOUTH...TSTMS ARE FORECAST TO DEVELOP SOUTHWARD ALONG THE COLD FRONT INTO PARTS OF IA/NEB/KS LATER THIS AFTERNOON AND EARLY EVENING. VERTICAL SHEAR WILL BE SOMEWHAT WEEKER ALONG THIS PORTION OF THE COLD FRONT...BUT STEEP LOW-MID LEVEL LAPSE RATES AND DRY AIR ALOFT WILL PROMOTE DOWNDRAFT PRODUCTION WITH A THREAT OF DAMAGING WINDS IN STRONGER CELLS.

...AZ/CA...

A VERY MOIST AIRMASS REMAINS IN PLACE OVER PARTS OF AZ/CA...WITH MORNING PSR/TUS SOUNDINGS AND GPS DATA SHOWING OVER 1.50 INCH PW VALUES. A COMBINATION OF EXTENSIVE CLOUDINESS AND THE EFFECTS OF YESTERDAYS STORMS WILL LIKELY SUPPRESS HEATING TODAY AND LIMIT DESESTABILIZATION. THIS IS EXPECTED TO LESSEN THE OVERALL RISK OF SEVERE STORMS TODAY. NEVERTHELESS...LOCALLY DAMAGING THUNDERSTORM WINDS WILL BE POSSIBLE IN THOSE AREAS WHERE STRONG HEATING OCCURS.
Probabilistic Tornado Graphic

Probability of a tornado within 25 miles of a point.
Hatched Area: 10% or greater probability of EF2 - EF5 tornadoes within 25 miles of a point.

Probabilistic Damaging Wind Graphic
Probability of hail 3/4" or larger within 25 miles of a point.
Hatched Area: 10% or greater probability of hail 2" or larger within 25 miles of a point.