

DAY 1 CONVECTIVE OUTLOOK  
NWS STORM PREDICTION CENTER NORMAN OK  
1127 AM CDT SAT MAY 05 2007  
VALID 051630Z - 061200Z

...THERE IS A HIGH RISK OF SVR TSTMS ACROSS PORTIONS OF CENTRAL  
KS/NEB...

...THERE IS A MDT RISK OF SVR TSTMS ACROSS PORTIONS OF SRN  
SD...CENTRAL AND WRN NEB/KS...NWRN OK AND EXTREME NERN TX  
PANHANDLE...

...THERE IS A SLGT RISK OF SVR TSTMS ACROSS THE PLAINS STATES FROM  
ND SWD INTO TX...

...A REGIONAL OUTBREAK OF SEVERE THUNDERSTORMS AND TORNADOES IS  
FORECAST THIS AFTERNOON AND EVENING...ESPECIALLY ACROSS CENTRAL KS  
AND NEB...

...SYNOPSIS...

A LARGE UPPER TROUGH WAS LOCATED OVER THE ROCKIES THIS MORNING...  
WITH THE CENTER OF CIRCULATION LOCATED IN ERN UT/WRN CO. ROTATING  
AROUND THIS TROUGH WAS A 70-90KT MID LEVEL JET MAX...THAT STRETCHED  
FROM NM NEWD THROUGH THE TX PANHANDLE AND INTO NEB/KS. A SURFACE LOW  
WAS LOCATED IN NWRN KS AND IS FORECAST TO LIFT SLOWLY NWD ACROSS WRN  
NEB THIS AFTERNOON. A DRYLINE EXTENDED SWD FROM THE LOW INTO THE  
TX/OK PANHANDLES...AND WILL MOVE ONLY SLOWLY EWD THIS AFTERNOON...AS  
THE MAIN UPPER TROUGH/SURFACE LOW REMAIN ALONG AND WEST OF THE HIGH  
PLAINS. A WARM FRONT CURRENTLY EXTENDS FROM THE OHIO VALLEY EWD INTO  
EXTREME SRN NEB. AS THE SURFACE LOW LIFTS NWD...THE WARM FRONT  
SHOULD ALSO LIFT NWD AND EXTEND FROM SERN NEB NWD INTO SOUTH  
CENTRAL SD BY LATE TODAY.

...CENTRAL PLAINS...

ALTHOUGH MOSTLY CLOUDY SKIES COVER MUCH OF THE REGION THIS MORNING

...DDC 12Z SOUNDING SHOWED AN EXTREMELY MOIST/UNSTABLE AND WEAKLY  
CAPPED ENVIRONMENT. THE COMBINATION OF LARGE SCALE LIFTING...DUE TO  
STRONG DIFFLUENCE ALOFT...AND WEAK HEATING SHOULD RESULT IN STORMS  
TO CONTINUE TO DEVELOP ACROSS NEB INTO THE AFTERNOON...WITH STORMS  
GRADUALLY DEVELOPING SWD INTO KS BY EARLY AFTERNOON. THOUGH SURFACE  
BASED INSTABILITY IS CURRENTLY WEAK ACROSS NEB...MUCAPE VALUES  
BETWEEN 1500-2000 J/KG AND 50 KT DEEP LAYER SHEAR IS SUFFICIENT FOR  
SEVERE STORMS. AS SURFACE BASED STORMS DEVELOP IN SOUTH CENTRAL NEB/  
CENTRAL KS THIS AFTERNOON...THESE STORMS WILL BE ABLE TO TAP INTO  
MLCAPES BETWEEN 2500-3500 J/KG. THIS INSTABILITY AND 50-60 KT DEEP  
LAYER SHEAR SUGGESTS THAT ONCE THESE STORMS DEVELOP...THEY WOULD  
QUICKLY EVOLVE INTO SUPERCELLS WITH A THREAT FOR EXTREME HAIL AND  
WINDS. THE DEGREE OF INSTABILITY... FORCING...MOIST BOUNDARY LAYER  
AND 1KM SRH BETWEEN 150-250 M2/S2 ALSO FAVOR THE POTENTIAL FOR  
LONG-LIVED...STRONG TORNADOES. REFERENCE WW 232.  
THIS ACTIVITY IS EXPECTED TO MOVE NORTH-NORTHEASTWARD INTO CENTRAL  
KS/NEB OVERNIGHT WITH A CONTINUED RISK OF TORNADOES...LARGE HAIL

...AND DAMAGING WINDS. HOWEVER...STRENGTHENING HEIGHTS ALOFT ACROSS  
FAR ERN KS/ERN NEB/WRN IA WILL LIMIT MORE WIDESPREAD/EXTREME STORMS  
ADVANCING THAT FAR EWD.

...WRN OK/TX...

THE AREA IS EXPECTED TO STAY CAPPED THROUGH MUCH OF THE DAY. HOWEVER...STRONG HEATING AND SOME EWD MIXING OF DRYLINE MAY AID IN THE DEVELOPMENT OF STORMS IN THE EXTREME NERN TX PANHANDLE/NWRN OK BY LATE AFTERNOON. THESE STORMS WOULD ALSO BE IN A FAVORABLE ENVIRONMENT FOR EXTREME HAIL/WINDS AND STRONG TORNADOES. HOWEVER

...MODELS IN GENERAL AGREEMENT THAT STRONGER LARGE SCALE FORCING WILL OVERSPREAD THE DRYLINE AFTER DARK...WITH STORMS FORMING AT THAT TIME. THE HIGH INSTABILITY AND SUFFICIENT VERTICAL SHEAR WILL BE FAVORABLE FOR SUPERCELL STORMS...THOUGH THE FORCING INDICATES THE STORM MODE MAY BE LINEAR. THE STRONG INSTABILITY WOULD FAVOR LARGE HAIL. HOWEVER...IF THE STORMS EVOLVE INTO A LINE AND A COLD POOL DEVELOPS...DAMAGING WINDS MAY BECOME THE MAIN THREAT OVERNIGHT.

...NEB/SD/EXTREME NWRN IA...

FARTHER NORTH...SIGNIFICANT UPPER FORCING WILL OVERSPREAD NRN NEB AND SRN SD LATE THIS AFTERNOON AND EVENING. WARM SECTOR AIR MASS WILL BE SLOW TO DEVELOP NWD DUE TO ONGOING CONVECTION AND CLOUDS. HOWEVER...FORECAST SOUNDINGS INDICATE SUBSTANTIAL INSTABILITY SPREADING INTO THE AREA ALONG WITH STRONGLY SHEARED PROFILES. SUPERCELL STORMS WITH LARGE HAIL WILL BE THE MAIN THREAT INTO EARLY AFTERNOON...WITH THE TORNADO THREAT INCREASING THROUGH THE AFTERNOON AS STRONGER INSTABILITY SPREADS INTO THE AREA. REF 233.

..IMY/GUYER.. 05/05/2007



