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issued 24/1559Z Valid 241630Z - 251200Z

SPC Day 1 Convective Outlook

Categorical Graphic

Probabilistic Graphics (more info)

Tornado  Damaging Wind  Large Hail

(Select thumbnails to view full images)

STORM PREDICTION CENTER...NWS/NCEP...NORMAN OK
DAY 1 CONVECTIVE OUTLOOK...REF AWIPS GRAPHIC PGWE46 KWBC.

VALID 241630Z - 251200Z

THERE IS A HIGH RISK OF SVR TSTMS THIS AFTERNOON AND TONIGHT ACROSS
IND...WRN OH...SRN/CENTRAL IL...SERN MO...NRR AND WRN KY AND SERN
LOWER MI. THIS AREA IS TO THE RIGHT OF A LINE FROM
20 W CLE 25 NW ZZV 35 NW HTS 40 WSW HOP 30 NNW ARG 10 ENE TBN 15 WNW STL BMI 25 SSE CGX 15 WNW LAN 15 E MTC.

THERE IS A SLGT RISK OF SVR TSTMS TO THE RIGHT OF A LINE FROM 25 ENE ROC 45 WSW ELM 20 NNE EKN 15 WNW BKW 25 SW TYS 15 NNW BHM MEI 35 W JAN 40 SW GLH 45 WSW PBF 30 N HOT 20 SE UMN 45 S SZL 30 NNE COU 25 ESE UIN 10 W PIA 35 S RFD 30 W MKE 20 SSE MTW 35 NNW APN.

GEN TSTMS ARE FCST TO THE RIGHT OF A LINE FROM 20 SSE HUM 25 SSW ESF 30 NNE SHV 10 SW FSM 40 SSE OJC 40 NE SZL 40 SE OTM 10 E CID 15 WSW VOK 55 NNE EAU 20 ESE DLH 40 SW HIB 20 SW BJI 25 W RRT ...CONT... 50 WNW 3B1 35 WSW BHB.

...A SIGNIFICANT SEVERE WEATHER OUTBREAK DEVELOPS THIS AFTERNOON ACROSS THE MID MISSISSIPPI AND WESTERN OHIO VALLEYS AND SPREADS RAPIDLY EWD THIS EVENING INTO SOUTHERN GREAT LAKES.. OHIO AND TENNESSEE VALLEYS...

...SYNOPSIS...
POWERFUL POLAR JET IS DRIVING RAPIDLY ESEWD ACROSS CENTRAL ROCKIES AND CENTRAL PLAINS TODAY. SURFACE LOW THIS MORNING OVER NRN MN WITH COLD FRONT TRAILING SEWD INTO WRN WI AND THEN SSWWD INTO SWRN MO TO NWRN TX. WITH APPROACH OF THE STRONG S/WV TROUGH NOW MOVING ACROSS CENTRAL PLAINS...SIGNIFICANT DEEPENING OF SURFACE LOW WILL TAKE PLACE DURING AFTERNOON VICINITY OF LAKE MICHIGAN AND THEN HEAD NWD INTO SWRN ONTARIO TONIGHT. THE ASSOCIATED COLD FRONT WILL SWEEP RAPIDLY EWD ACROSS MS INTO OH/TN VALLEYS DURING AFTERNOON REACHING THE APPALACHIANS LATER TONIGHT.

...MS VALLEY/OH VALLEY INTO SRN GREAT LAKES...
GULF MOISTURE IS SPREADING RAPIDLY NEWD AHEAD OF THE COLD FRONT INTO WRN OH VALLEY. MORNING SOUNDINGS INDICATED MDTLY STEEP MID LEVEL LAPSE RATES OF 7-8 C/KM WHICH COUPLED WITH DEWPOINTS INTO THE 60S WILL GENERATE SBCAPES FROM 1500-2500 J/KG AS FAR N AS SRN IL AND CENTRAL IND AHEAD OF FRONT.

WITH APPROACH OF THE STRONG TROUGH AND THE DEEPENING SURFACE LOW NEAR LAKE MICHIGAN AREA...DEEP LAYER SHEAR WILL RAPIDLY BECOME FAVORABLE FOR SEVERE THUNDERSTORMS AND SUPERCELLS EARLY THIS AFTERNOON WRN OH VALLEY. MODEL SOUNDINGS FROM 12Z ETA INDICATE STRONG DEEP LAYER SHEAR OF 50-60 KT ALONG WITH SUFFICIENT LOW LEVEL VEERING TO PRODUCE HELICITIES FROM 200-300 M2/S2.

THERE WILL BE RAPID DEVELOPMENT OF SEVERE THUNDERSTORMS EARLY THIS AFTERNOON ALONG/AHEAD OF COLD FRONT FROM ERN IL SWWD INTO SERN MO. CAP WILL WEAKEN SUFFICIENTLY BY MID AFTERNOON TO SUPPORT SEVERE STORMS TO DEVELOP WELL AHEAD OF COLD FRONT IN WARM SECTOR. THESE STORMS WILL FORM IN A VERY FAVORABLE ENVIRONMENT FOR TORNADIC SUPERCELLS. GIVEN THE STRENGTH OF THE SHEAR AND UPPER LEVEL DIVERGENCE AND EXPECTED UNSTABLE AIR MASS...THERE IS POTENTIAL FOR DEVELOPMENT OF INTENSE TORNADIC SUPERCELLS PRIOR TO ARRIVAL OF THE EXPECTED RAPIDLY MOVING SQUALL LINE.

WIDESPREAD WIND DAMAGE WILL DEVELOP AS THE SQUALL LINE RACES EWD ACROSS OH VALLEY INTO TN VALLEY THIS EVENING WITH EMBEDDED BOW
ECHOES AND POSSIBLE TORNADIC SUPERCELLS.

LARGE HAIL WILL ALSO OCCUR WITH THE SUPERCELLS DURING THE AFTERNOON...HOWEVER BY EVENING THE PRIMARY SEVERE MODE SHOULD EVOLVE INTO DAMAGING WINDS. SIGNIFICANT WIND DAMAGE IS LIKELY WELL INTO THE NIGHT ACROSS OH INTO TN VALLEYS AS WIND PROFILES CONTINUE TO INCREASE WITH DEEPENING NEGATIVELY TILTED TROUGH ROTATING ACROSS THE AREA.

..HALES.. 10/24/01

NOTE: THE NEXT DAY 1 OUTLOOK IS SCHEDULED FOR 2000Z