


[Site Map](#)
[News](#)
[Organization](#)
Search for: 

SPC



NCEP



All NOAA

Go

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

Go

Find us on  
Facebook

SPC on Facebook

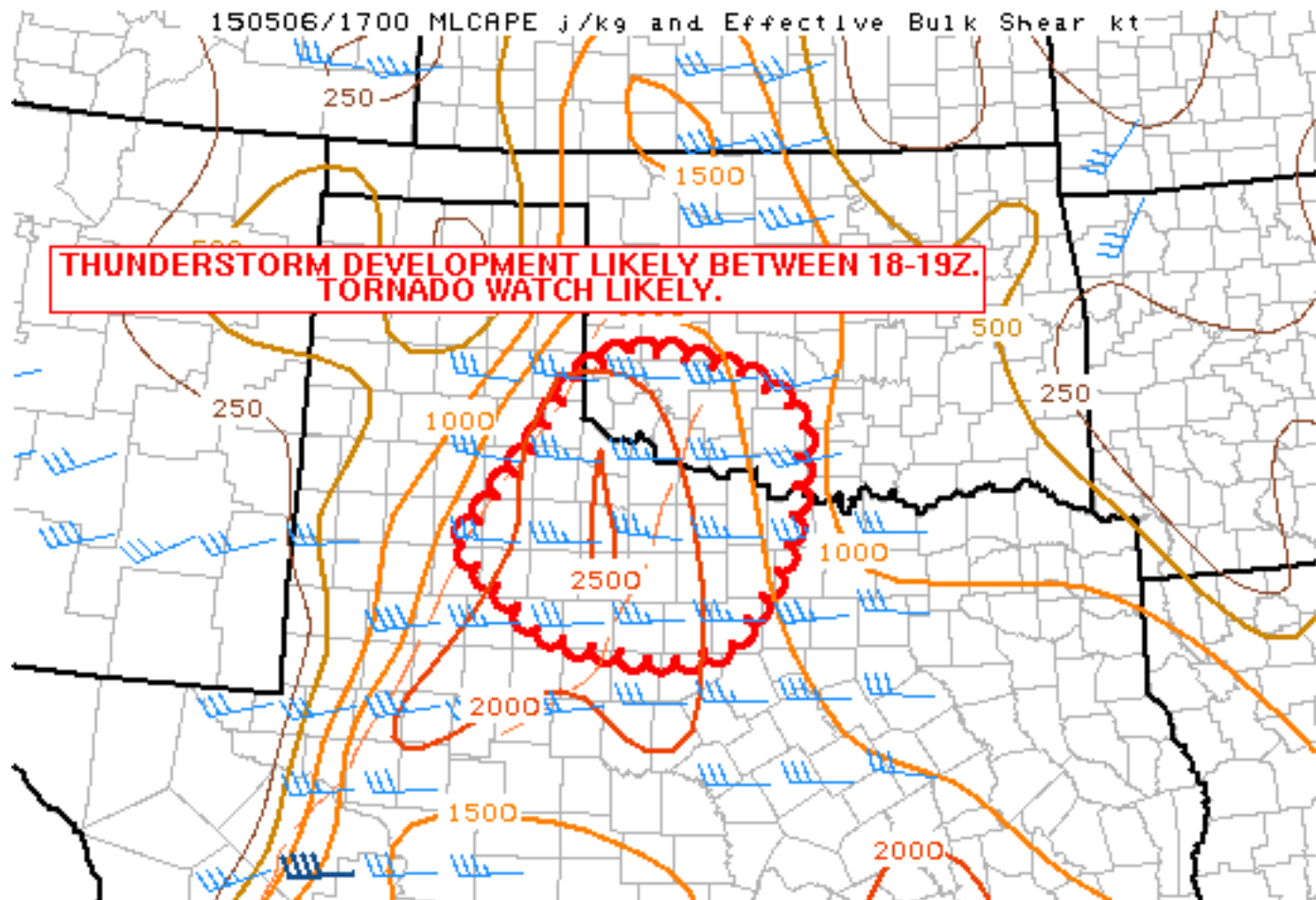


@NWSSPC

 NCEP Quarterly  
Newsletter

[Home \(Classic\)](#)
[SPC Products](#)
[All SPC Forecasts](#)
[Current Watches](#)
[Meso. Discussions](#)
[Conv. Outlooks](#)
[Tstm. Outlooks](#)
[Fire Wx Outlooks](#)
[RSS Feeds](#)
[E-Mail Alerts](#)
[Weather Information](#)
[Storm Reports](#)
[Storm Reports Dev.](#)
[NWS Hazards Map](#)
[Watch/Warning Map](#)
[National RADAR](#)
[Product Archive](#)
[NOAA Weather Radio](#)
[Research](#)
[Non-op. Products](#)
[Forecast Tools](#)
[Svr. Tstm. Events](#)
[SPC Publications](#)
[SPC-NSSL HWT](#)
[Education & Outreach](#)
[About the SPC](#)
[SPC FAQ](#)
[About Tornadoes](#)
[About Derechos](#)
[WCM Page](#)
[Enh. Fujita Page](#)
[Our History](#)
[Public Tours](#)
[Misc.](#)
[Staff](#)
[Contact Us](#)
[SPC Feedback](#)

## Mesoscale Discussion 515

[< Previous MD](#)
[Next MD >](#)


SPC MCD #0515

MESOSCALE DISCUSSION 0515

NWS STORM PREDICTION CENTER NORMAN OK

0103 PM CDT WED MAY 06 2015

 AREAS AFFECTED...PORTIONS OF WEST TEXAS...NORTHWEST TEXAS AND  
SOUTHWEST OKLAHOMA

CONCERNING...SEVERE POTENTIAL...WATCH LIKELY

VALID 061803Z - 062000Z

PROBABILITY OF WATCH ISSUANCE...95 PERCENT

SUMMARY...THUNDERSTORMS EXPECTED TO DEVELOP RAPIDLY BETWEEN 18 AND  
19Z. SEVERE HAIL AND WIND GUSTS ARE THE PRIMARY THREATS  
INITIALLY...BUT TURNING LOW-LEVEL HODOGRAPHS SUGGEST A TORNADO  
THREAT FOR ANY SUSTAINED UPDRAFTS.

DISCUSSION...STRONG HEATING HAS CONTRIBUTED TO RAPID DESTABILIZATION  
AHEAD OF A DIFFUSE DRYLINE WITH AN EASTERN EDGE STRETCHING FROM EAST  
OF LBB TO NEAR SHAMROCK. ALTHOUGH THE MCD AREA IS UNDER NEUTRAL TO



SLIGHT MID-LEVEL HEIGHT RISES IN THE WAKE OF THE EXITING  
WAVE...LITTLE TO NO CONVECTIVE INHIBITION IS PRESENT OVER THE AREA.  
MIXED-LAYER CAPE VALUES HAVE RISEN ABOVE 2000 J/KG WITH LOW-LEVEL  
LAPSE RATES ABOVE 8 C/KM. WITH EFFECTIVE SHEAR OF 30-40  
KT...SUPERCELL STRUCTURES WILL BE THE FAVORED MODE FOR PERSISTENT  
UPDRAFTS...BUT LONGEVITY OF THE SUPERCELLS COULD BE NEGATIVELY  
IMPACTED BY STORM INTERACTIONS AS NUMEROUS STORMS ARE EXPECTED TO  
DEVELOP UNDER LITTLE INHIBITION AND POSSIBLY ENHANCED BY LIFT FROM A  
WEAK POTENTIAL VORTICITY ANOMALY PROGRESSING THROUGH THE BROAD  
CYCLONIC FLOW IN UPPER-LEVELS. REGARDLESS OF STORM MODE...SEVERE  
HAIL IS LIKELY WITH THE STRONGER STORMS...WITH SEVERE WIND GUSTS  
POSSIBLE GIVEN THE STEEP LOW-LEVEL LAPSE RATES. ALTHOUGH LOW-LEVEL  
WIND SPEEDS REMAIN SOMEWHAT MODEST...LOW-LEVEL HODOGRAPHS SHOW  
CURVATURE...WITH EFFECTIVE HELICITY VALUES OF 100-150 M2/S2 FOR  
STORMS THAT DEVIATE TO THE RIGHT OF THE MEAN FLOW AND SHEAR.

..CONIGLIO/HART.. 05/06/2015

ATTN...WFO...FWD...OUN...SJT...LUB...AMA...MAF...

LAT...LON    33749772 33359780 32599836 32419910 32660036 33390127  
                 34170062 34380046 34920010 35239945 35019826 34629758  
                 33749772

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

Weather Topics:

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

NOAA / National Weather Service  
National Centers for Environmental Prediction  
Storm Prediction Center  
120 David L. Boren Blvd.  
Norman, OK 73072 U.S.A.  
spc.feedback@noaa.gov  
Page last modified: May 06, 2015

[Disclaimer](#)  
[Information Quality](#)  
[Help](#)  
[Glossary](#)

[Privacy Policy](#)  
[Freedom of Information Act \(FOIA\)](#)  
[About Us](#)  
[Career Opportunities](#)