

MOORE, OKLAHOMA, TORNADO SUMMARY

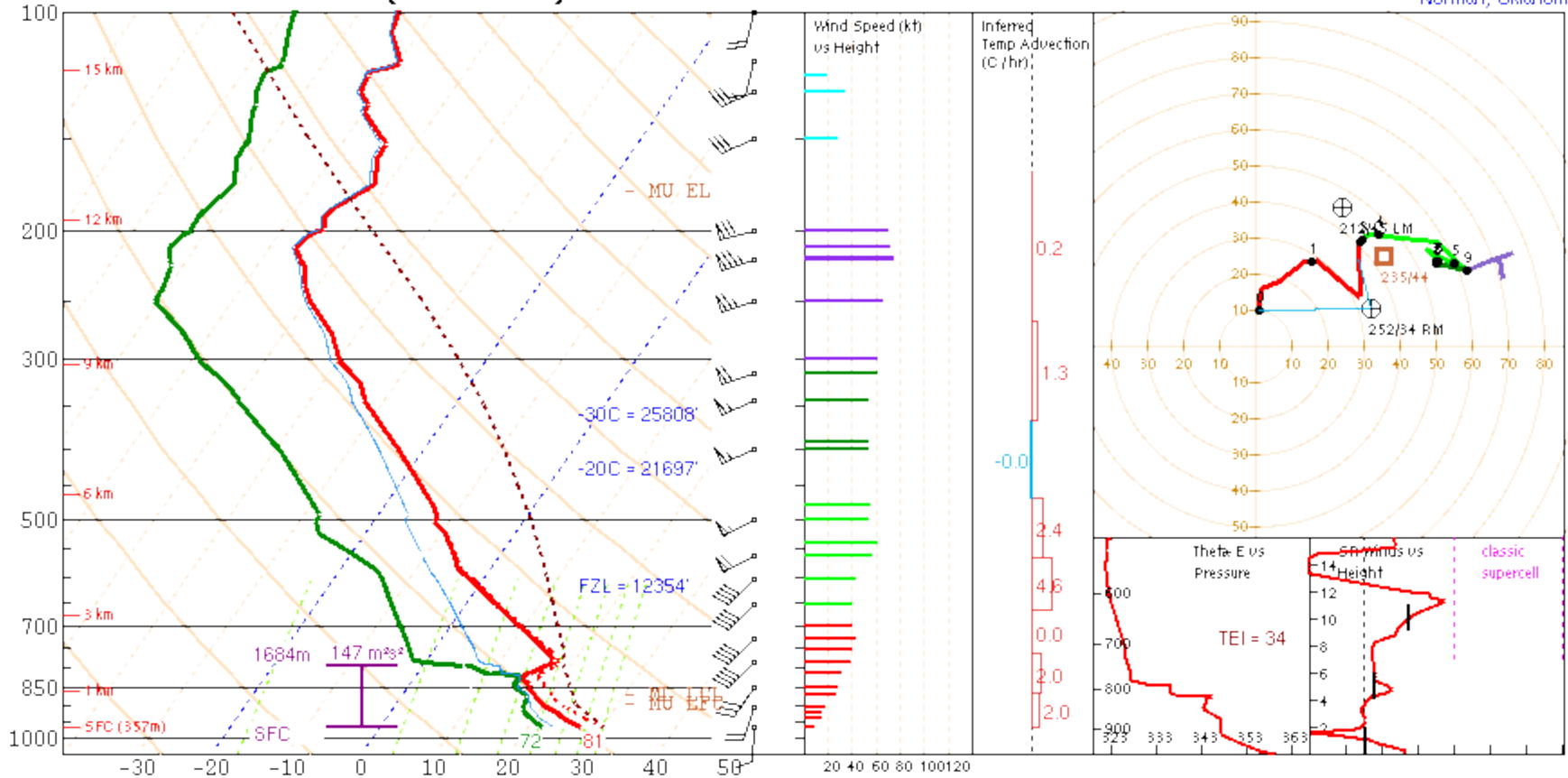
Event Date: May 20, 2013

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Studies, University of Wisconsin at Madison



OUN 130520/1700 (Observed)



PARCEL	CAPE	CINH	LCL	LI	LFC	EL
SURFACE	4946	0	631m	-13	631m	41215'
MIXED LAYER	3120	-33	890m	-9	2386m	39612'
FCST SURFACE	3632	-10	1170m	-10	2137m	40055'
MU (966 mb)	4946	0	631m	-13	631m	41215'
PW = 1.28 in	3CAPE = 48 J/kg		WBZ = 9935'		WINDG = 0.7	
K = 27	DCAPE = 1321 J/kg		FZL = 12354'		ESP = 0.6	
MidRH = 40%	DownT = 57 F		ConvT = 88F		MMP = 0.99	
LowRH = 85%	MeanW = 15.0 g/kg		MaxT = 84F			
SigSevere = 82790 m3/s3						
Sfc-3km Agl Lapse Rate = 7.6 C/km						
3-6km Agl Lapse Rate = 7.7 C/km						
850-500mb Lapse Rate = 7.0 C/km						
700-500mb Lapse Rate = 8.2 C/km						

Supercell = 14.5
Left Supercell = -8.6
Sig Tor (CIN) = 2.6
Sig Tor (fixed) = 3.7
Sig Hail = 4.1

	SRH(m2/s2)	Shear(kt)	MnWind	SRW
SFC - 1 km	131	20	199/19	106/27
SFC - 3 km	156	34	219/28	129/18
Eff Inflow Layer	147	31	214/22	112/21
SFC - 6 km		52	227/34	153/15
SFC - 8 km		51	230/37	164/14
Lower Half Storm Depth		51	228/35	157/15
Cloud Bearing Layer		43	235/44	194/15
BRN Shear = 83 m/s ²				
4-6km SR Wind = 226/23 kt				
..... Storm Motion Vectors.....				
Bunkers Right = 252/34 kt				
Bunkers Left = 212/45 kt				
Corfidi Downshear = 245/77 kt				
Corfidi Upshear = 256/30 kt				



*** BEST GUESS PRECIP TYPE ***
Rain.
 Based on sfc temperature of 81.3 F.

SARS - Sounding Analogs

SUPERCCELL		SGFNT HAIL	
57052021.TOP	SIG	02043000.FWD	4.50
99060620.MIW	WEAK	02062400.ABR	3.65
04050101.FWD	NON	98052500.OUN	3.50
		91052700.DDC	3.00
		03051000.OUN	2.75

(14 loose matches) SARS: 71% TOR
 (91 loose matches) SARS: 90% SIG

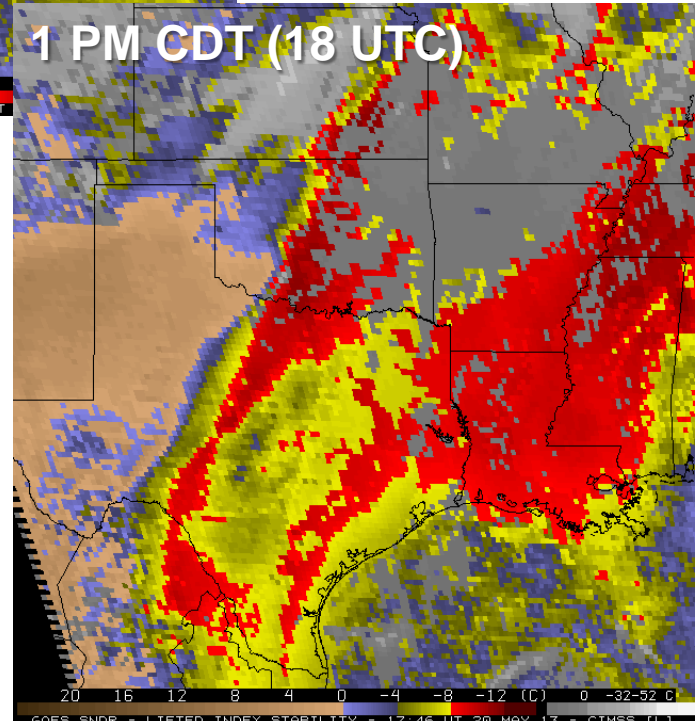
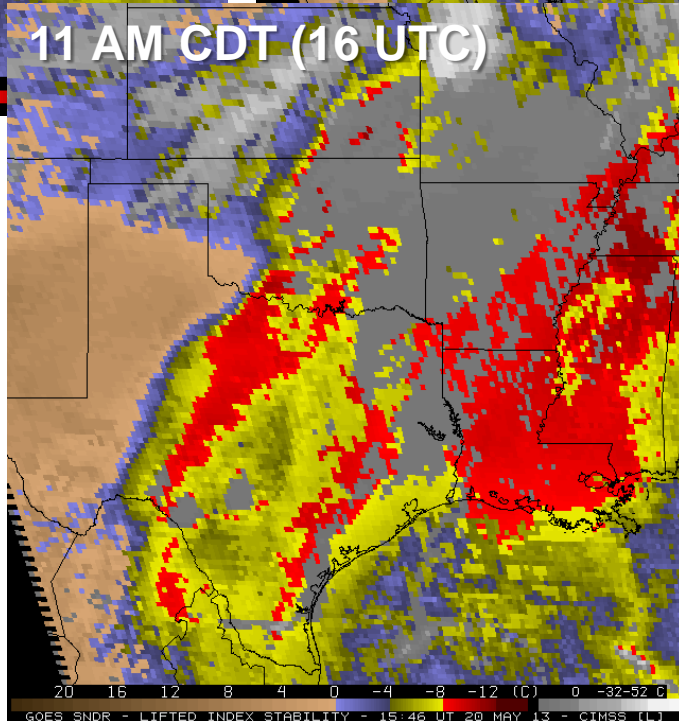
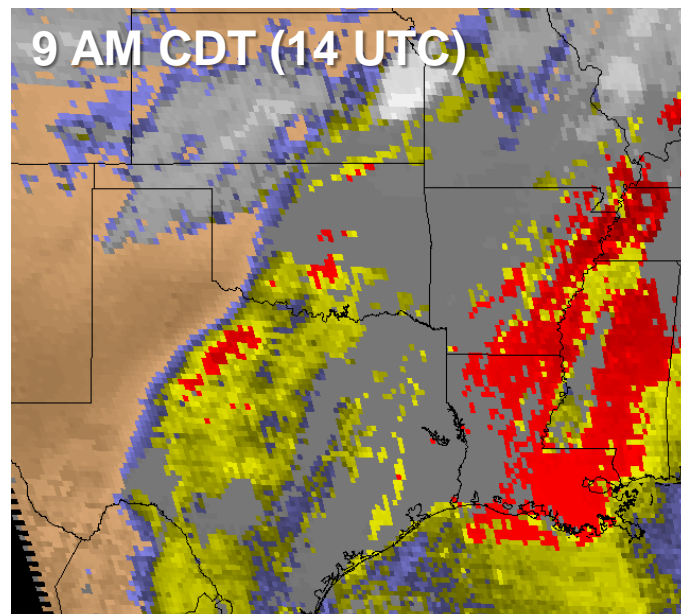
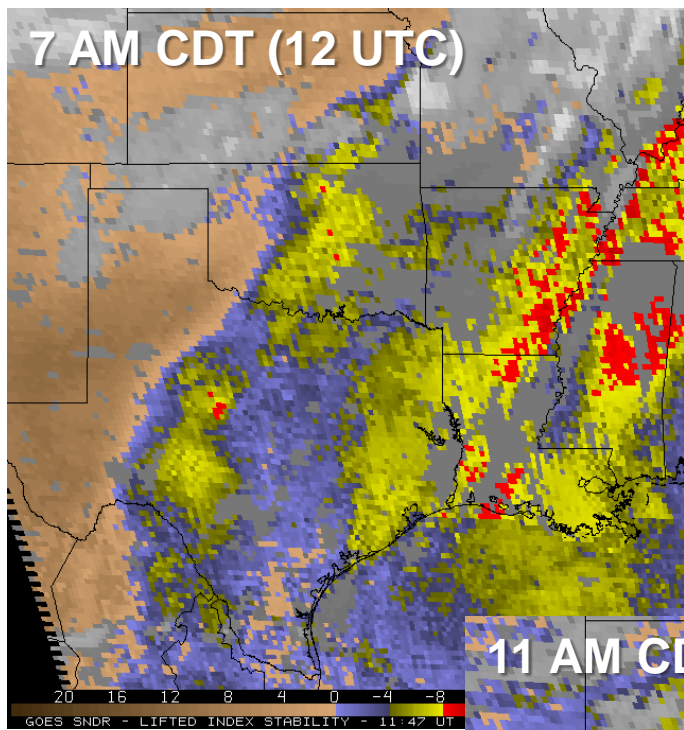
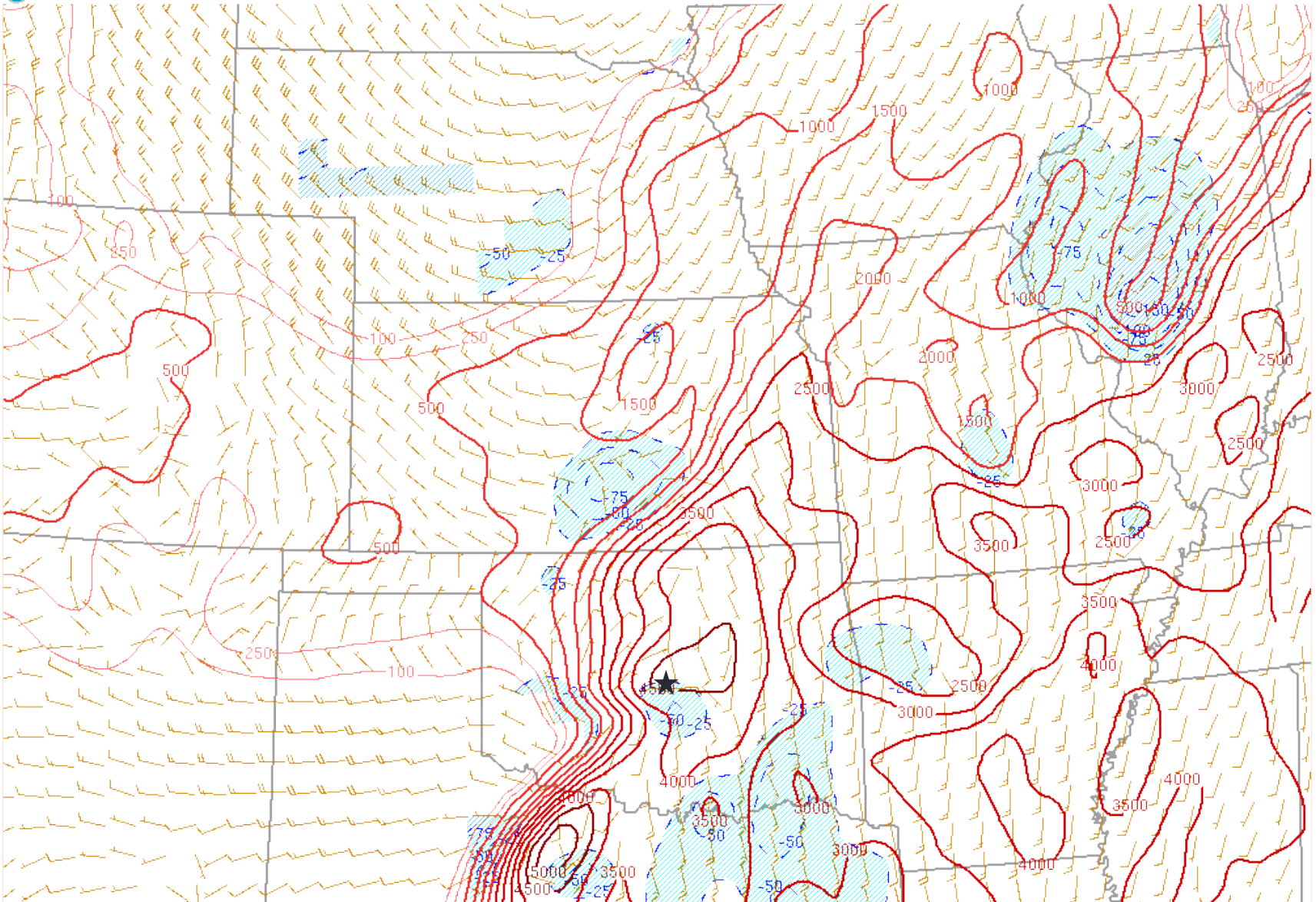
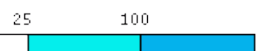
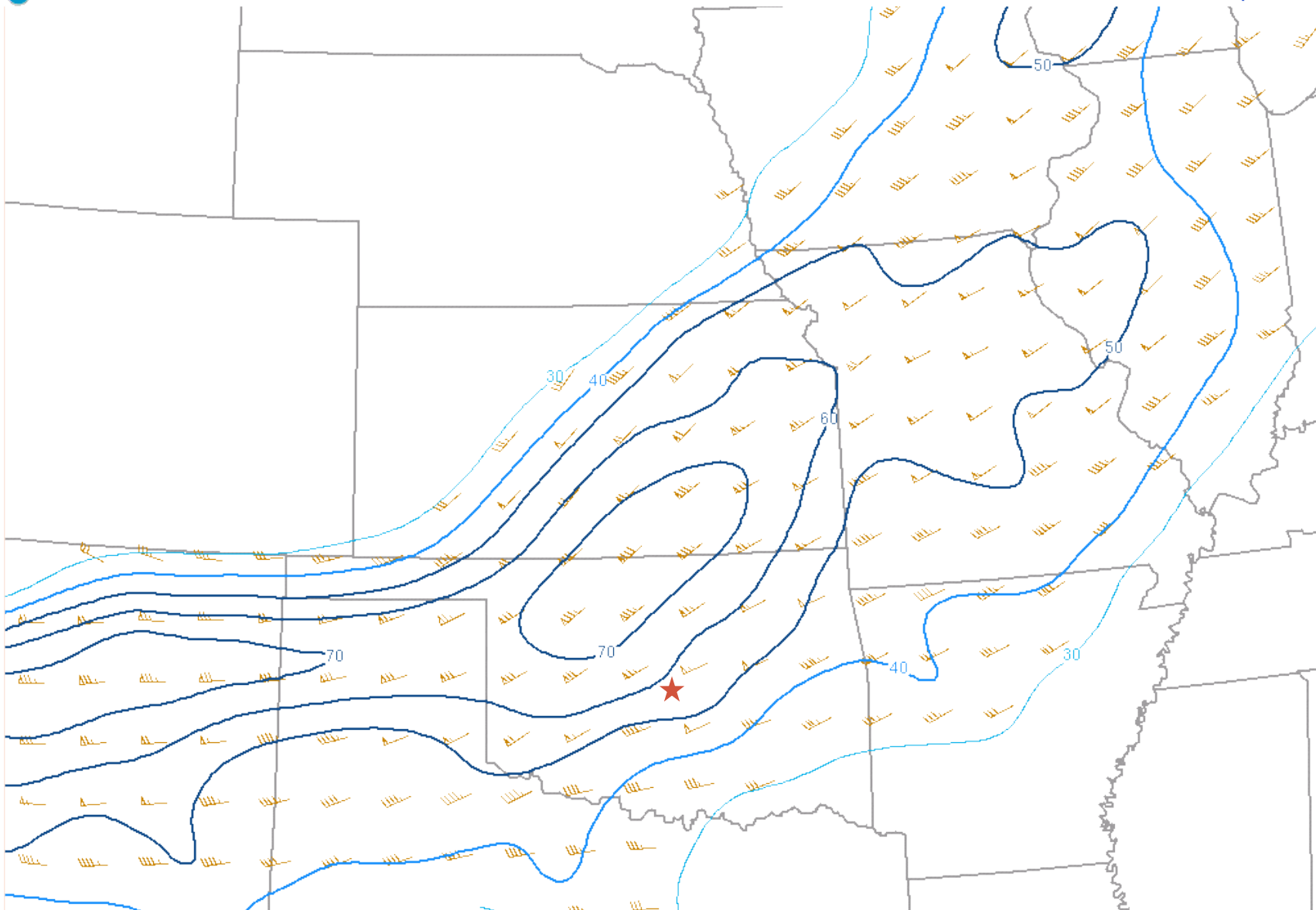


Image Credit: Gary S. Wade

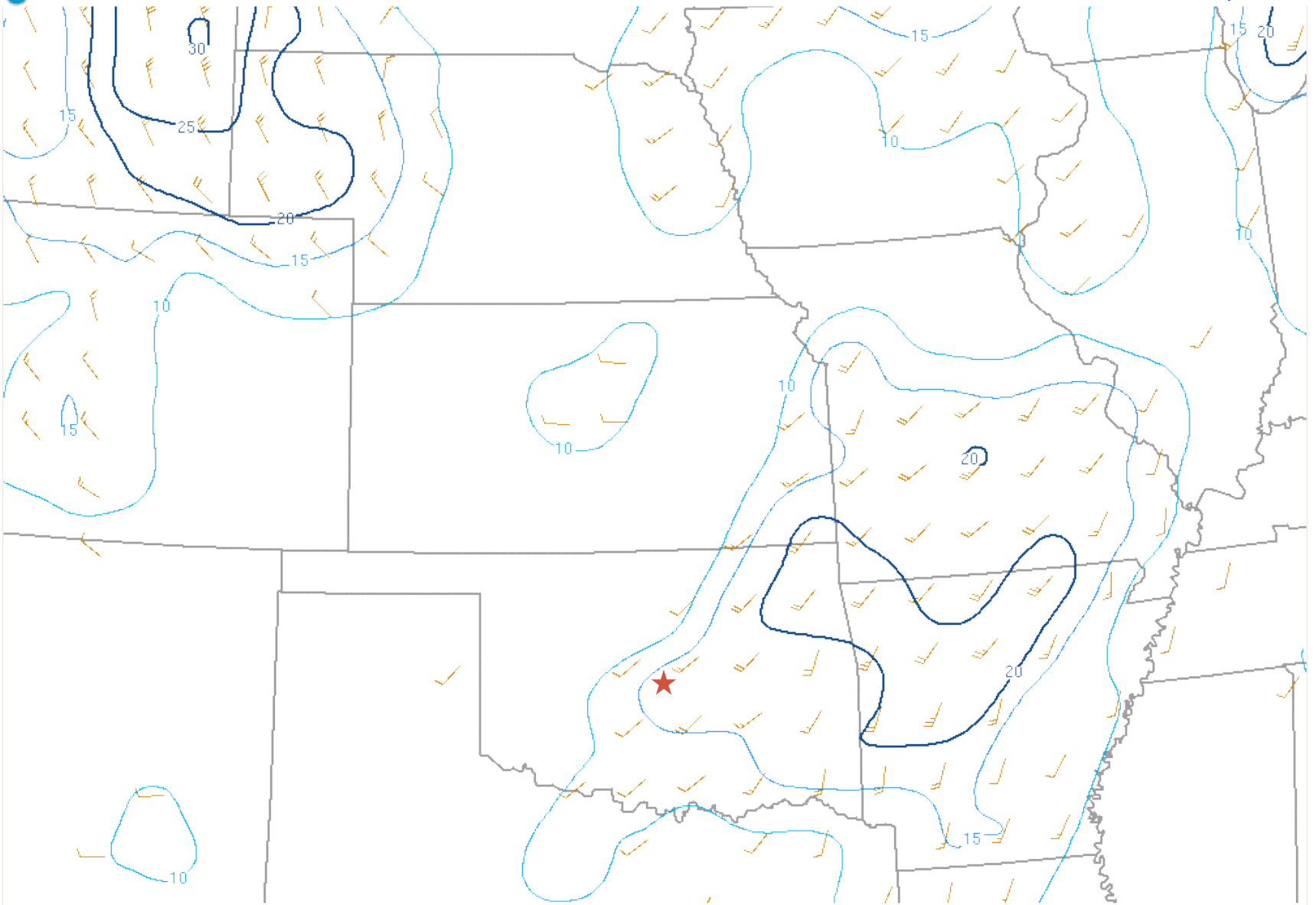


130520/2000 SBCAPE (contour) and SBCIN (J/kg, shaded)

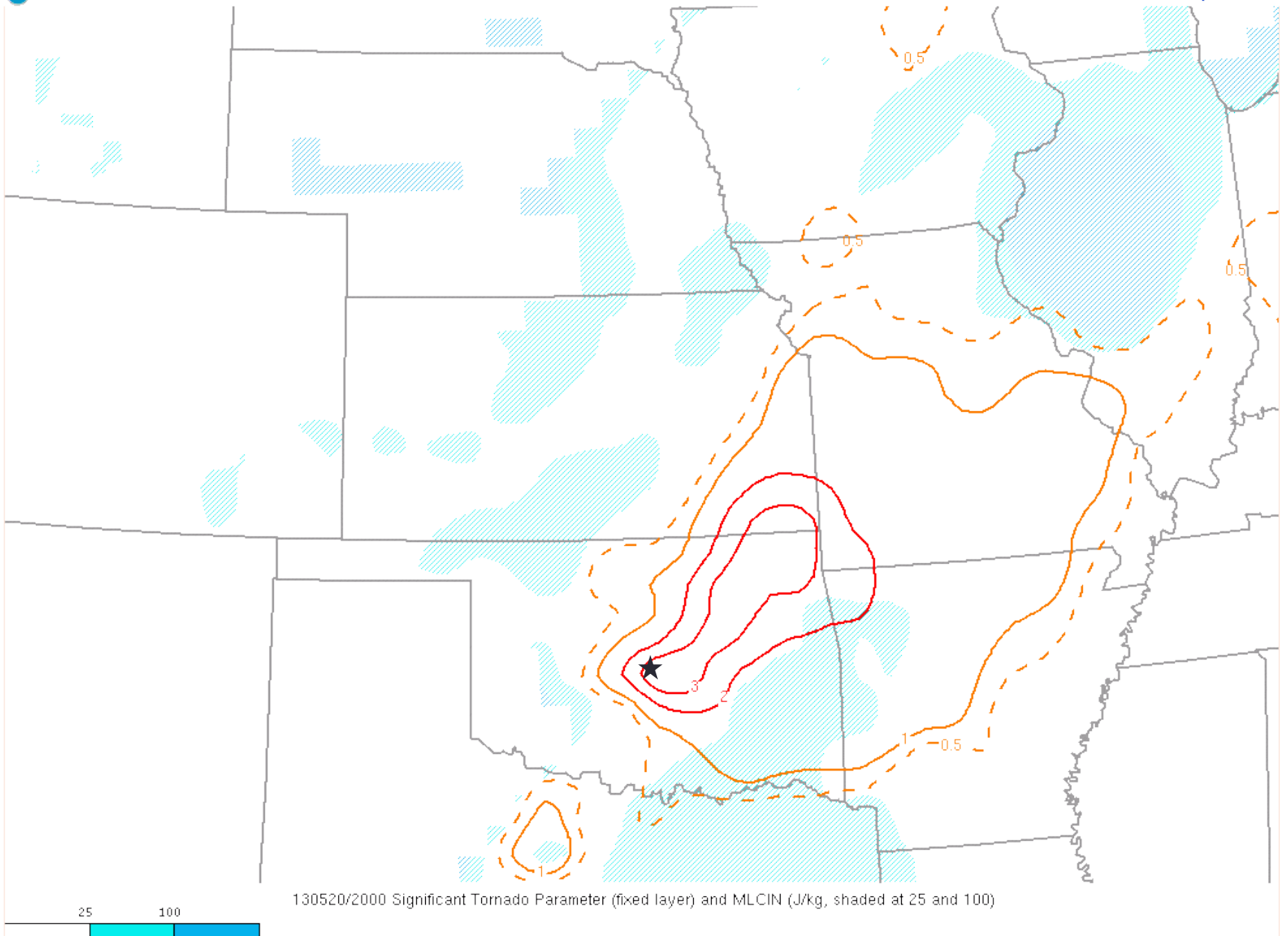




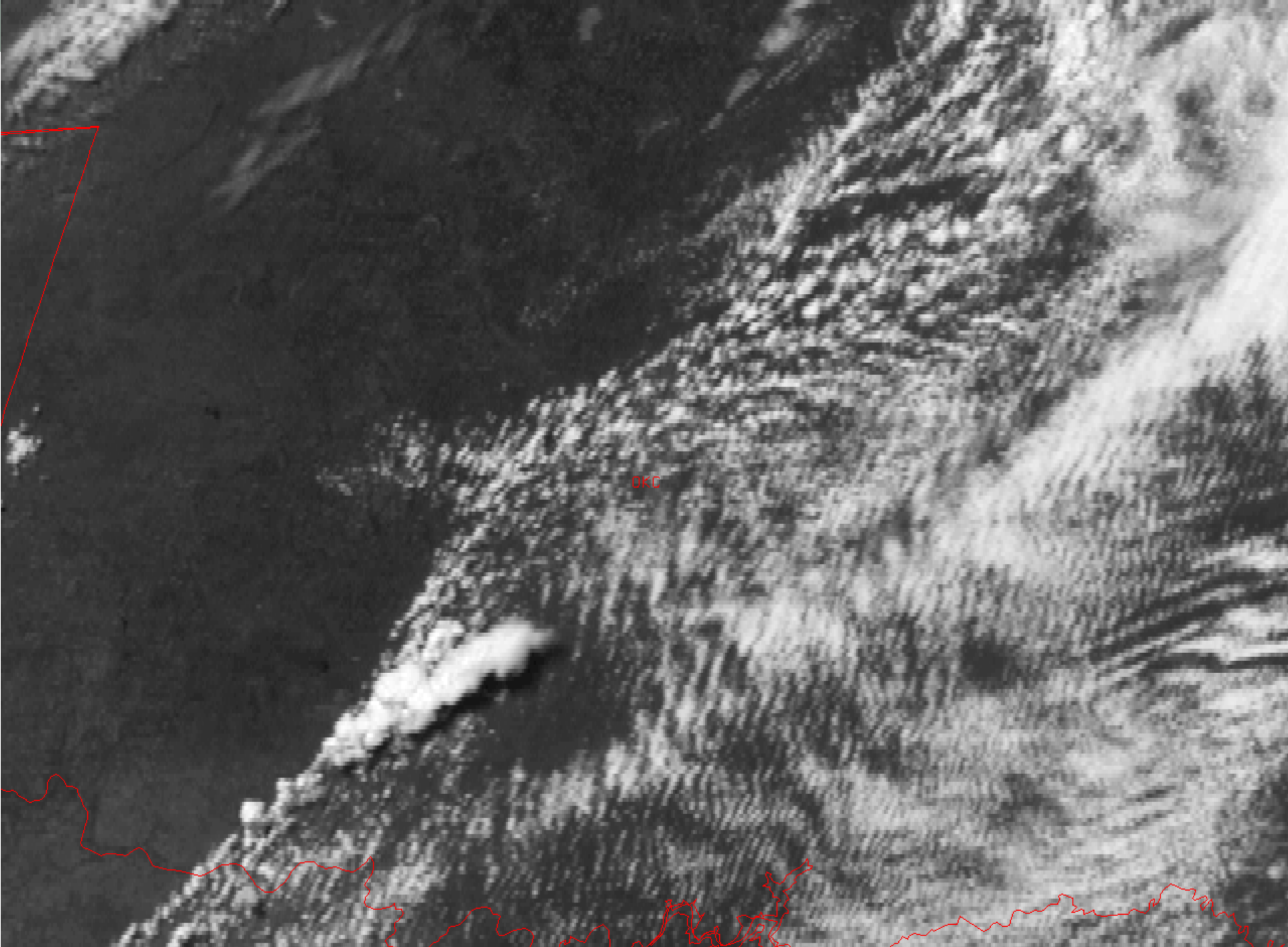
130520/2000 Surface to 6 km shear vector (kt)



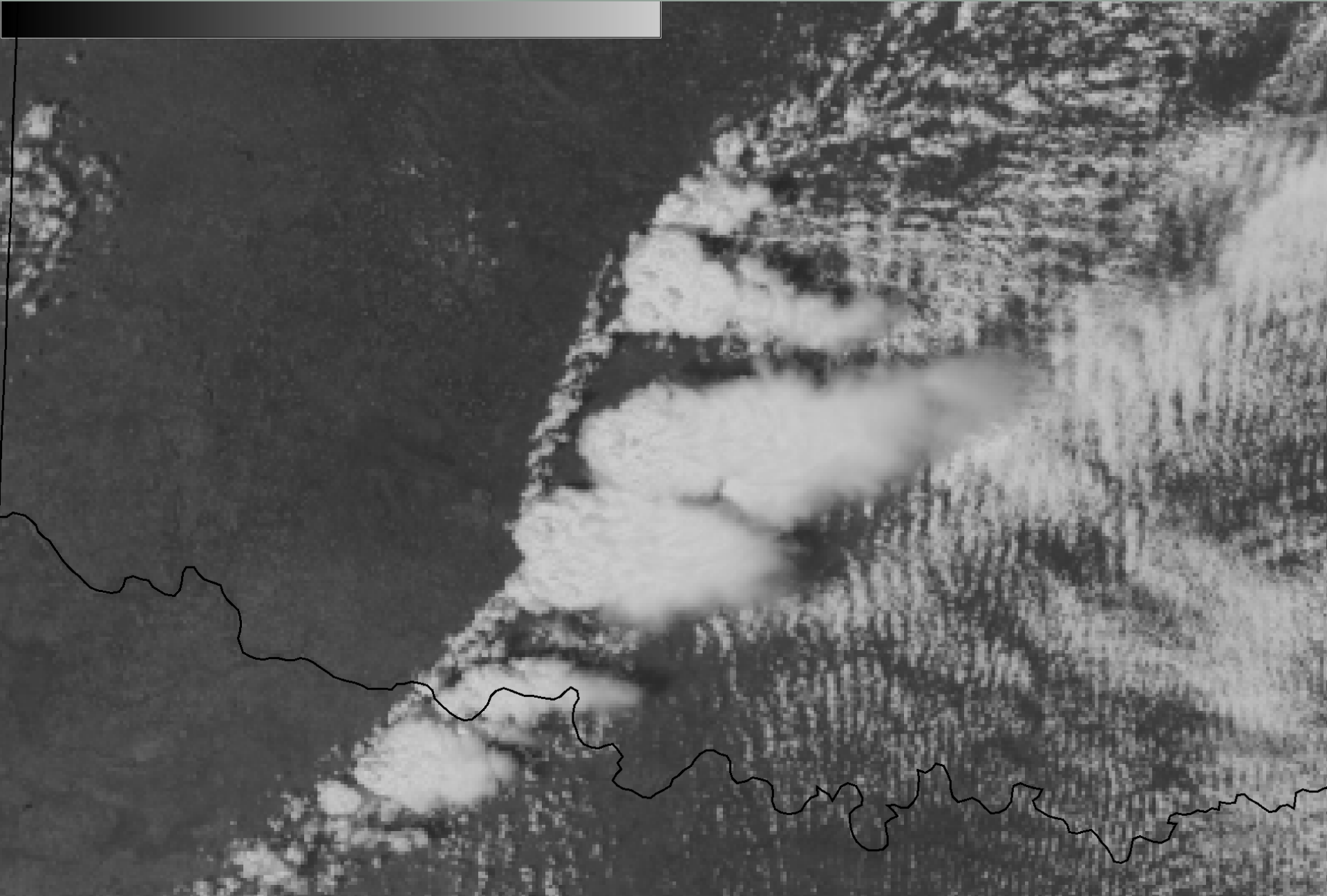
130520/2000 Surface - 1km shear vector

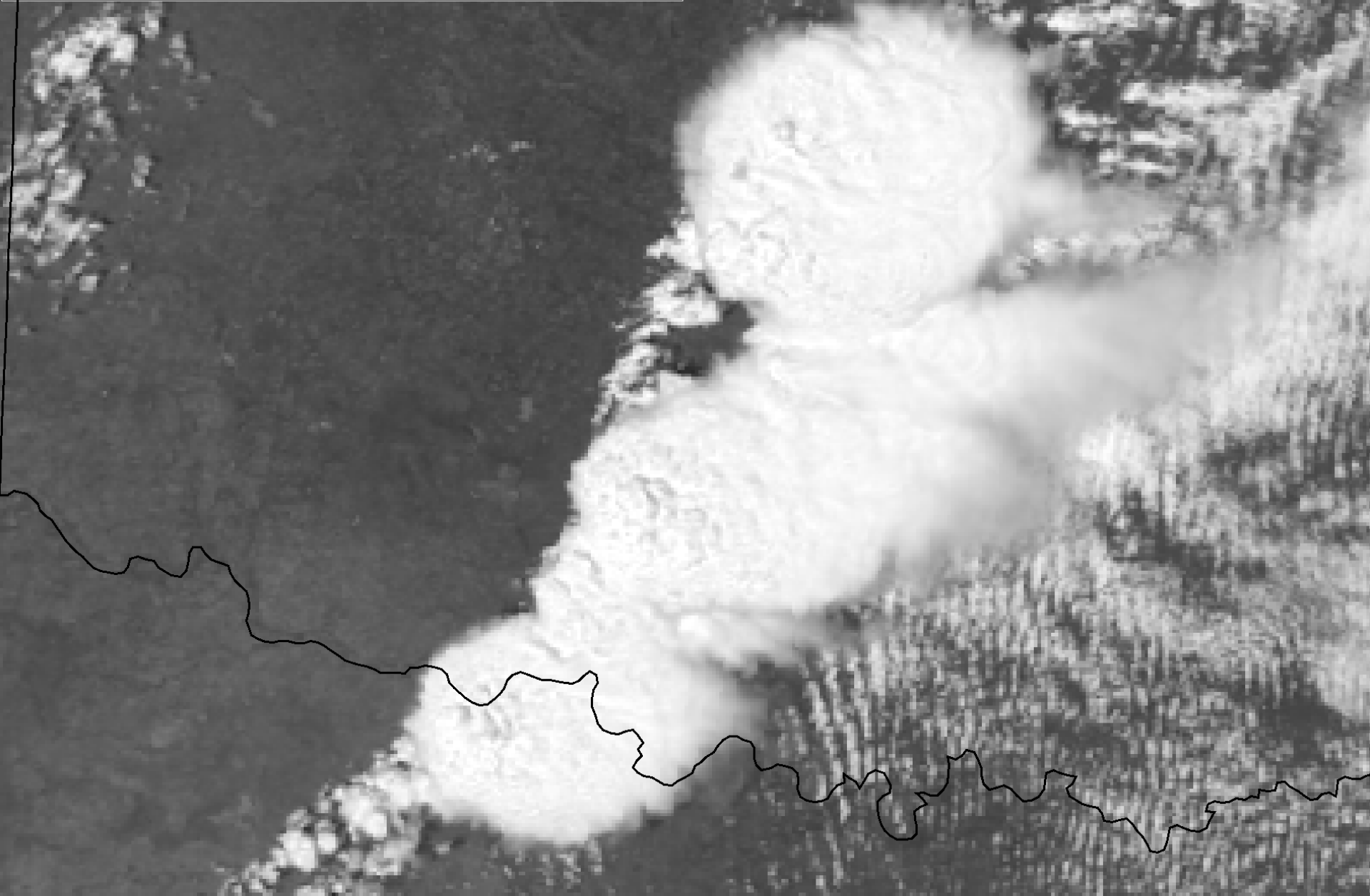


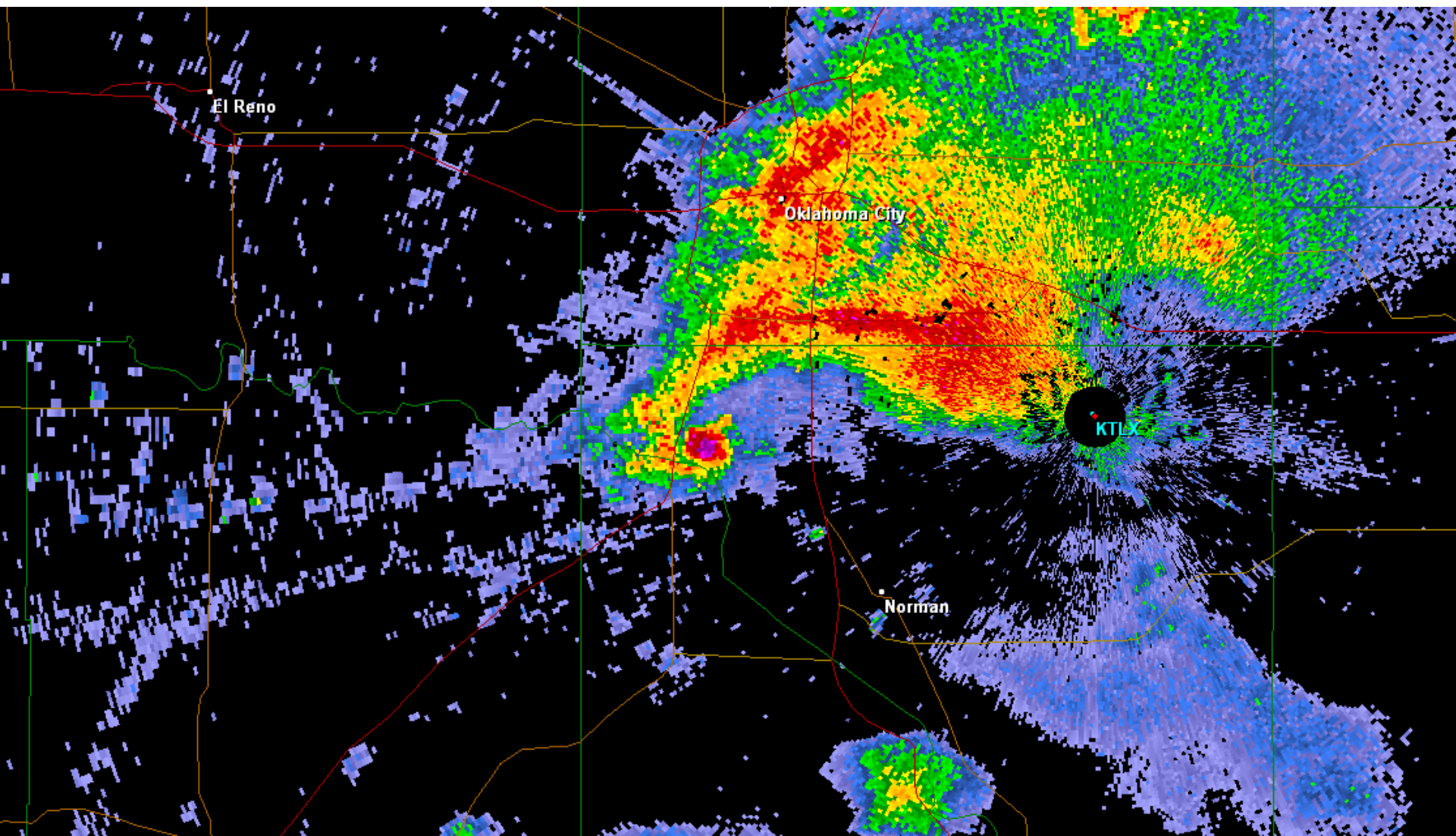
130520/2000 Significant Tornado Parameter (fixed layer) and MLCIN (J/kg, shaded at 25 and 100)



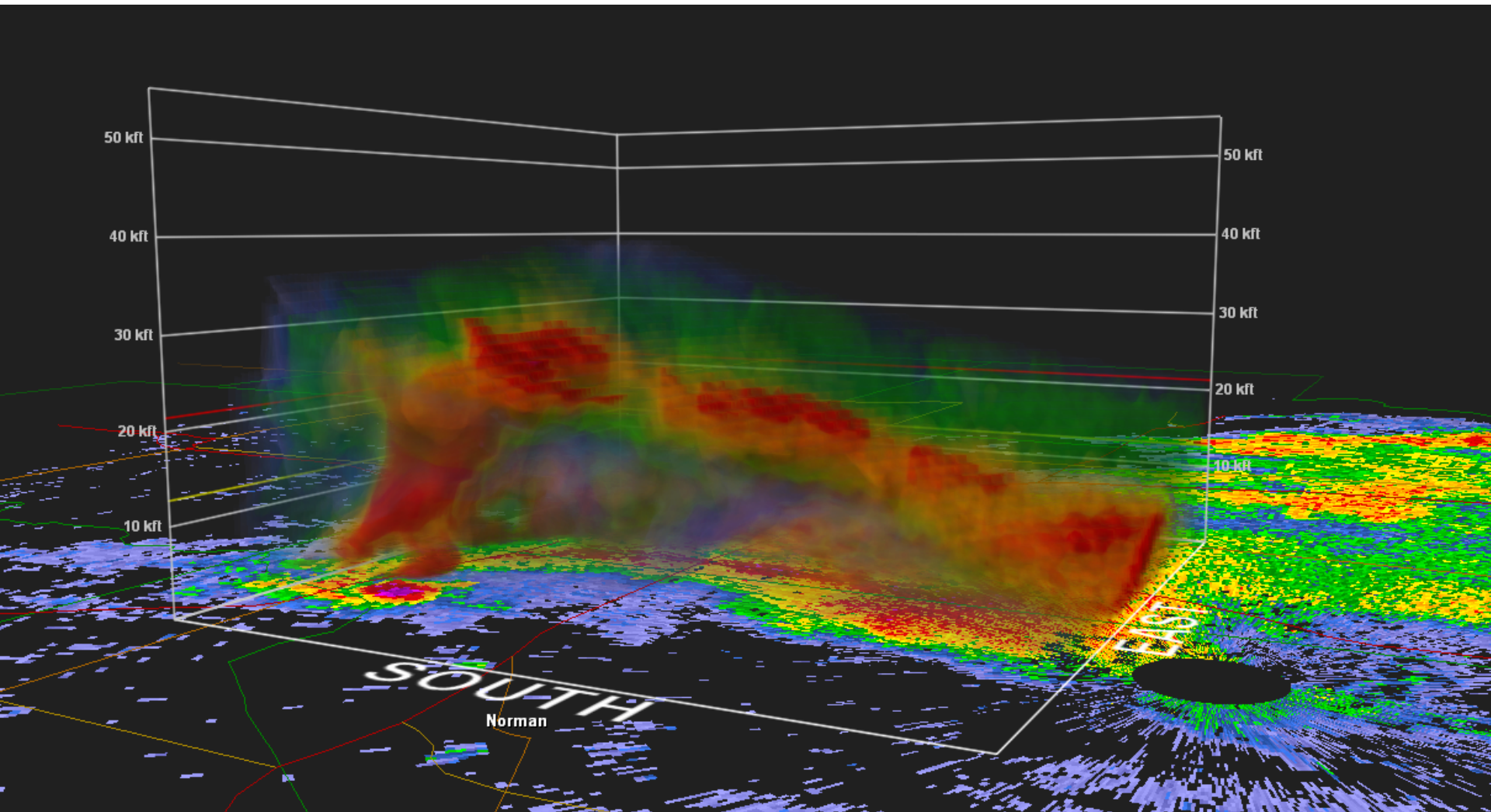
OKC



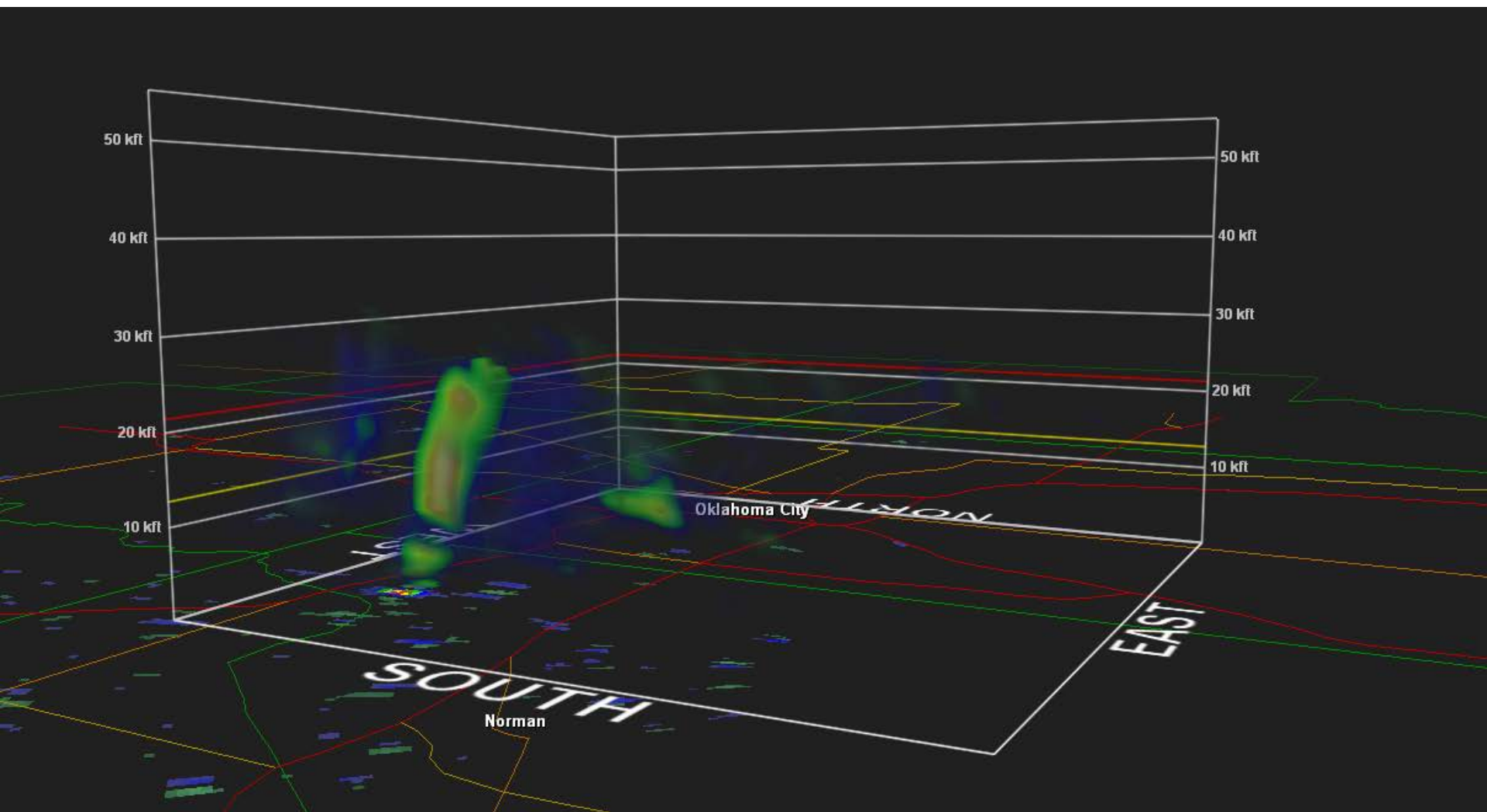




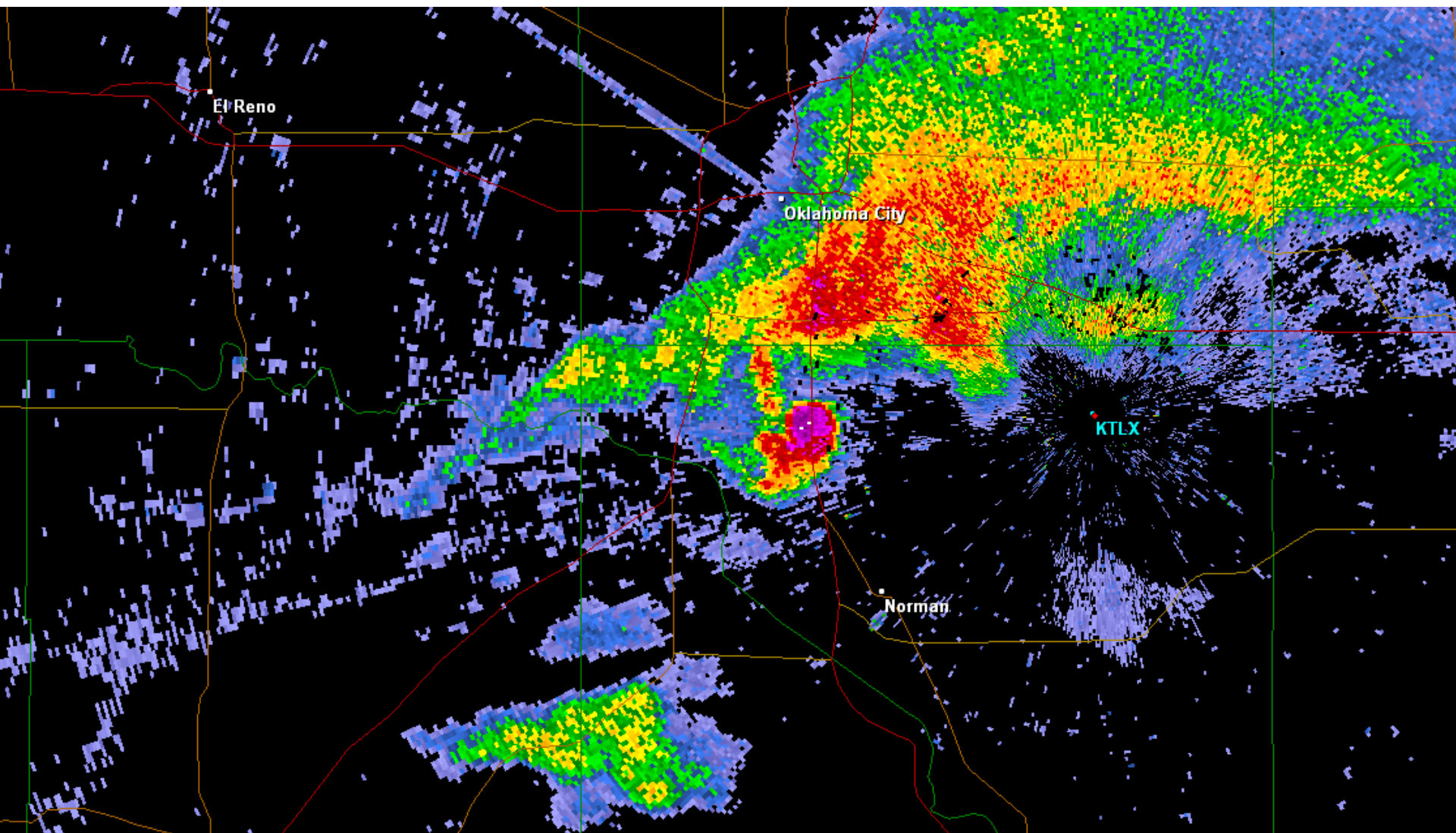
20:08 UTC (3:08 PM CDT) May 20, 2013



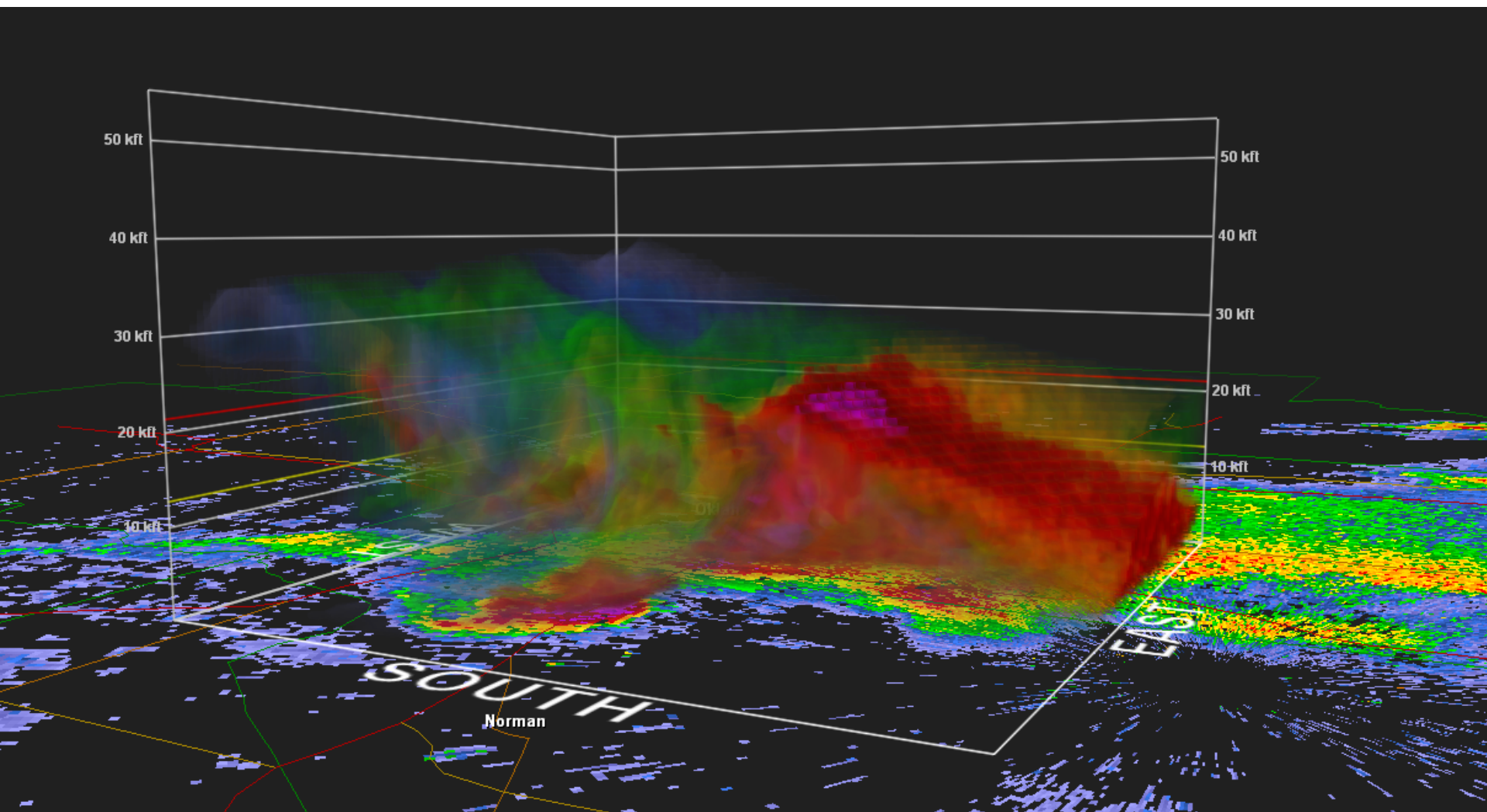
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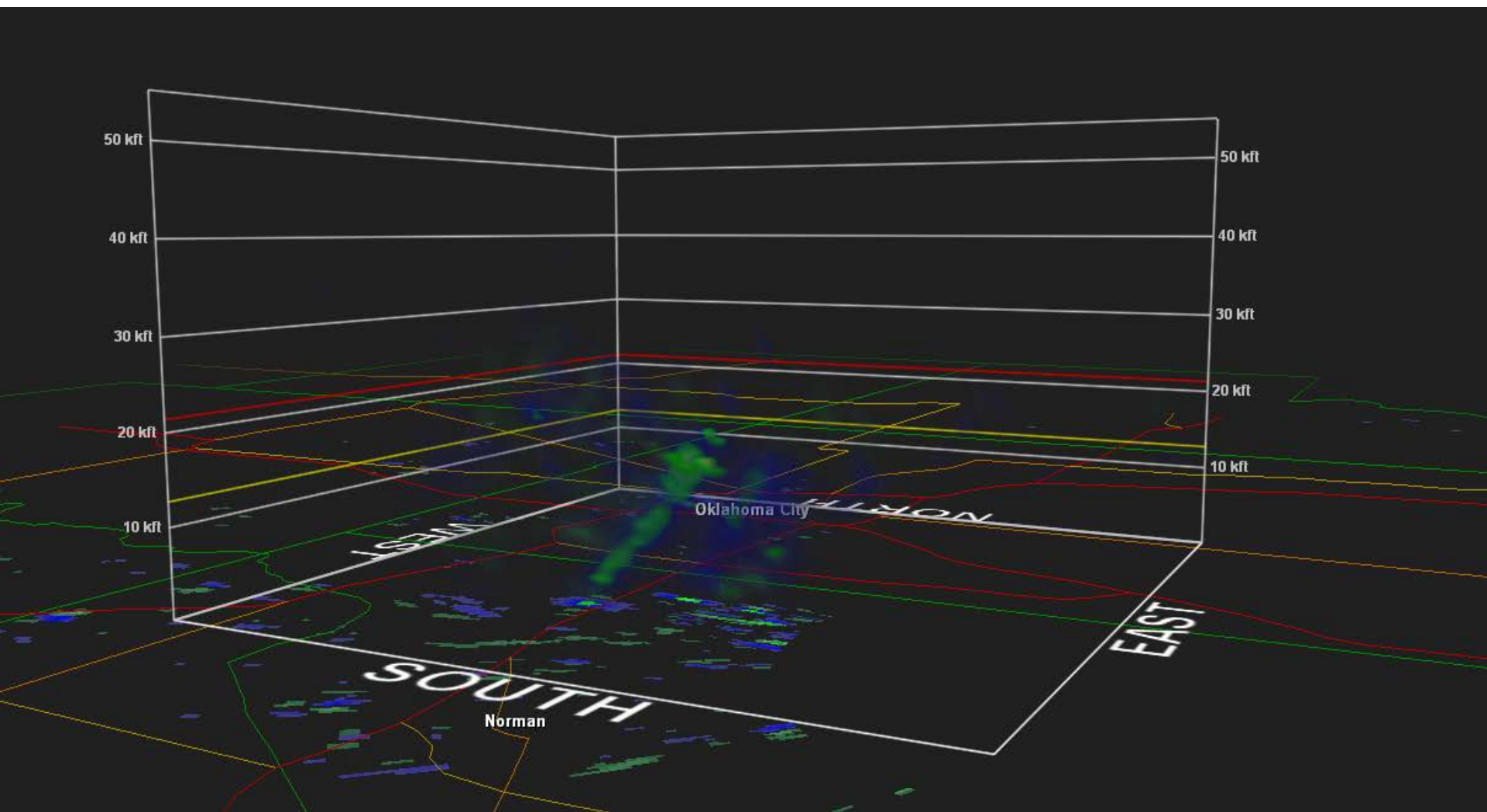
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20:21 UTC (3:21 PM CDT) May 20, 2013



20:21 UTC (3:21 PM CDT) May 20, 2013



20:21 UTC (3:21 PM CDT) May 20, 2013

EF-4 Tornado: Winds 166+ MPH

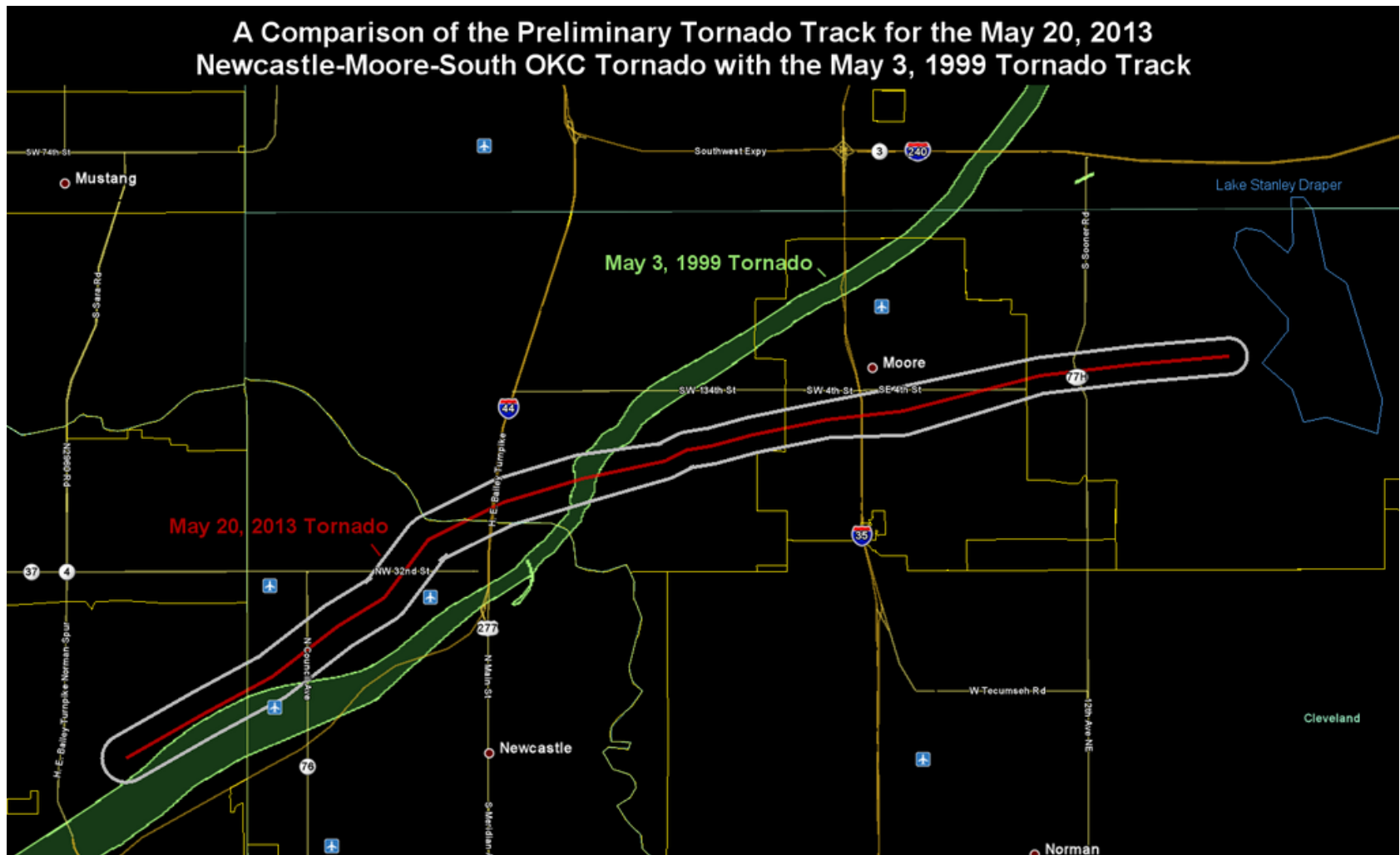


Image Credit: National Weather Service, Norman, OK

VIIRS Day/Night Band (Post-Event)

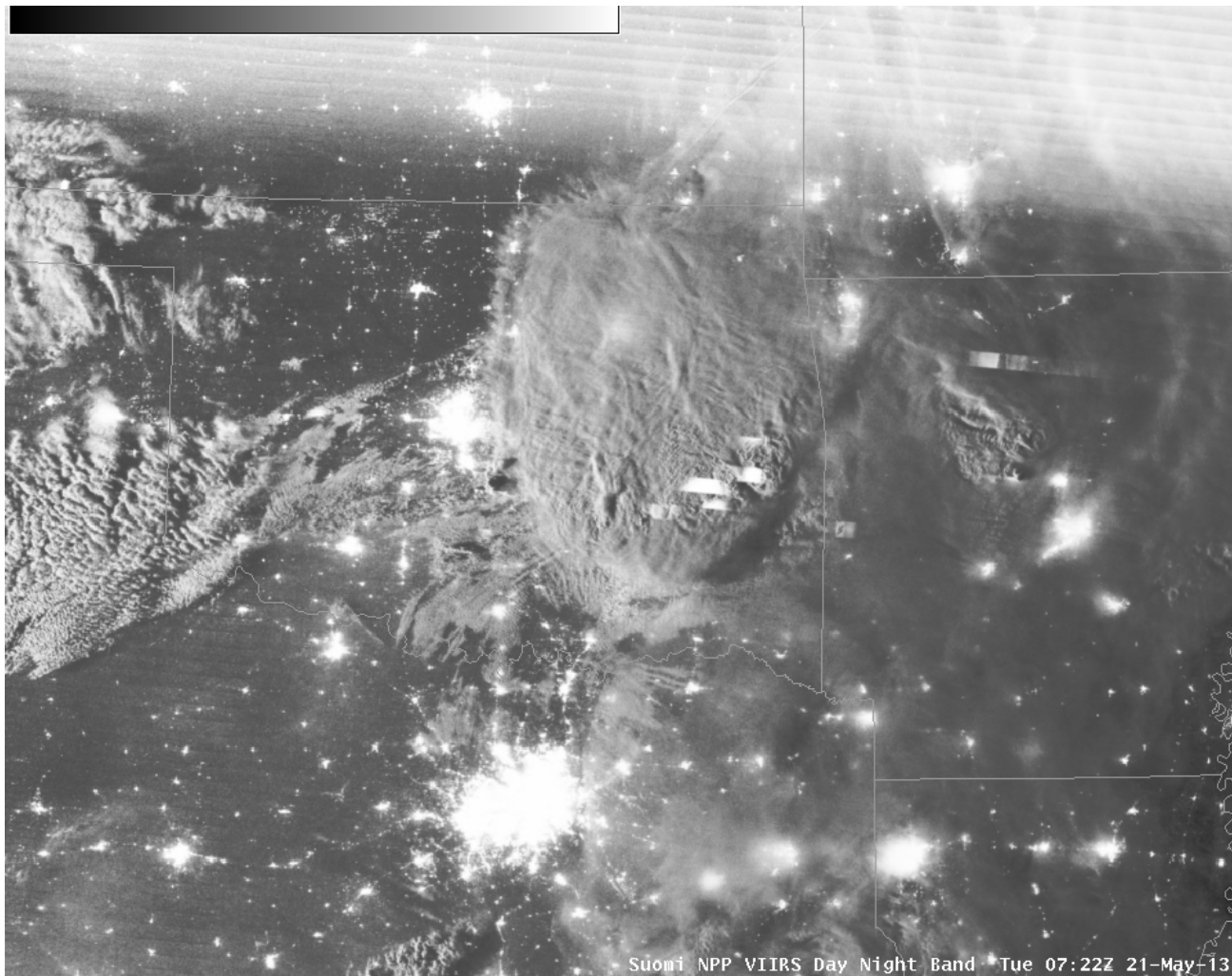


Image Credit: William Straka