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Interpreting Thunderstorm/Severe Weather Indices

K Index (Chances of Thunderstorm Development)	
Scale	Description
0 TO 15	No t-storms
16 TO 19	T-storms unlikely
20 TO 25	Isolated t-storms
26 TO 30	Widely scattered t-storms
30 TO 35	Numerous t-storms
36 TO 39	T-storms very likely
40 OR HIGHER	100% chance of t-storms

Lifted Index (LI) (Stability of an Air Parcel)	
Scale	Description
> 0	T-storms unlikely
0 TO -2	T-storms possible (trigger needed)
-3 TO -5	T-storms probable (isolated severe)
-6 TO -7	Strong/severe t-storms (tornadoes)
-7 TO -9	Severe t-storms (tornadoes)
< -9	WATCH OUT!!!

Total Totals Index (TT) (Effect of Atmospheric Lapse Rate/Low-Level Moisture)	
Scale	Description
0 TO 42	T-storms unlikely
43 TO 44	Isolated t-storms
45 TO 46	Scattered t-storms
47 TO 48	Scattered t-storms (isolated severe)
49 TO 50	Scattered t-storms (few severe)
51 TO 52	Scat. to numerous t-storms (severe/tornadoes)
53 TO 55	Numerous t-storms (scat. tornadoes)
56+	You don't want to know!!!

SWEAT Index (SW) (Severe Weather Threat Index)	
Scale	Description
< 272	T-storms unlikely
273 TO 299	Slight risk of general t-storms
300 TO 400	Moderate risk of general t-storms (iso. severe)
401 TO 600	Strong risk of gen. t-storms (few severe)
601 TO 800	High risk of severe t-storms (tornadoes)
801+	High wind damage, but not severe WX

CAPE (Convective Available Potential Energy)	
Scale	Description
0 ТО 799	Don't worry about it
800 TO 1,500	Weak energy available
1,501 TO 2,500	Moderate energy available
> 2,501	Strong energy available

CINH* (Convective Inhibition)	
Scale	Description
0 TO -50	Weak cap
-51 TO -199	Moderate cap
< -200	Strong cap

^{*} Known as the anti-CAPE or negative CAPE (smallest in the afternoon)

Showalter Index (SI) (Severe Thunderstorm Potential)	
Scale	Description
> 3	No t-storm activity expected
0 TO 2	Showers/isolated, general t-storms
-2 TO 0	General t-storms possible
-4 TO -2	Severe t-storms possible
< -4	Severe t-storms, as well as tornadoes

Storm Relative Helicity (SRH) (Helical Flow into a Moving Thunderstorm)	
Scale	Description
0 TO 149	None (tornadoes unlikely)
150 TO 299	Weak (isolated tornadoes)
300 TO 499	Moderate (scattered tornadoes)
> 450	Strong (widespread tornadoes)

Energy Helicity Index (EHI) (Wind Energy Available to a Storm)	
Scale Description	
< 2	Tornadoes unlikely
2 TO 2.4	Tornadoes possible, but not long-lived
2.5 TO 2.9	Tornadoes more likely
3.0 3.9	Strong to violent tornadoes
> 4	Violent tornadoes

Cross Totals Index (Frequency & Intensity of Thunderstorms)	
Scale	Description
<= 17	T-storms unlikely
18 TO 19	Isolated t-storms
20 TO 21	Scattered, general t-storms
22 TO 23	Scattered t-storms/isolated severe
24 TO 25	Scattered t-storms/few severe/isolated tornadoes
26 TO 29	Scat. to num. t-storms/few severe/few tornadoes
>= 30	Numerous t-storms/scat. severe/scat. tornadoes

Bulk Richardson Number (Measure of Thunderstorm Type)	
Scale	Description
< 10	T-storms unlikely
11 TO 49	Moderate chance/supercell
50+	Strong chance/multi-cell type

Vertical Totals Index (Measure of Thunderstorm Potential)	
Scale	Description
< 25	T-storms unlikely
25 TO 26	Scattered t-storms
27 TO 30	Scat. t-storms/few severe/isolated tornadoes
31 TO 32	Scatto-num. t-storms/scat. severe/few tornadoes
33 TO 34	Numerous severe t-storms/few tornadoes
> 34	Severe t-storms/scattered tornadoes