

and the types of tornadoes that will occur. While it doesn't directly forecast the occurrence of tornadoes, WBZ can help predict whether tornadoes will form in families or singularly once they are forecast.

Table 3-2 lists various general thunderstorm indices and threshold values; Table 3-3 lists indices and threshold values for forecasting

severe weather potential. Tables 3-4 and 3-7 list various tornado indicators. Thresholds vary somewhat from site to site, so closely monitor these values to discover the best value for local use and adjust accordingly. The best way to evaluate a threshold is to keep a continuous record of their effectiveness. Regional values are given where data are available.

Table 3-3. Severe thunderstorm indicators.

Severe Thunderstorm Indicators				
Index	Region	Weak (Low)	Moderate	Strong (High)
Bulk Richardson Number (BRN)		> 50		10 to 50
		Multi-cellular storms		Supercells
Cross Totals (CT)	East of Rockies	22 to 23	24 to 25	> 25
	Gulf Coast	16 to 21	22 to 25	> 25
	West of Rockies	< 22	22 to 25	> 25
Modified Lifted Index (MLI)	Europe	0 to -2	-3 to -5	-5 and lower
Surface Cross Totals (SCTI)	East of 100°W			=> 27
	High Plains			=> 25
	Foothills of Rockies			=> 22
SWEAT Index	Midwest and Plains	< 275	275 - 300	=> 300
	(unreliable at higher elevations)			
Thompson Index (TI)	Over the Rockies	20 to 29	30 to 34	=> 35
	East of Rockies	25 to 34	35 to 39	=> 40
Total-Totals (TT)	West of Rockies	55 to 57	58 to 60	=> 61
	East of Rockies	48 to 49	50 to 55	=> 56
Wet-Bulb Zero (WBZ) Height	Not for use with deep mT air masses	< 5,000 ft	5,000 to 12,000 ft	7,000 to 9,000 ft
			Large Hail	Tornado

Table 3-4. Tornado indicators.

Tornado Indicators		
Index	Value	Interpretation
Energy/Helicity Index (EHI)	0.8 to 1	Weak tornadoes.
	1 to 4	Strong tornadoes.
	> 4	Violent tornadoes.
Lifted Index (LI)	< -6	Tornadoes possible.
Mean Storm Inflow (MSI)	> 20	Mesocyclone development possible.
Showalter Index (SSI)	< -6	Tornadoes possible.
Storm Relative Directional Shear (SRDS)	> 70	Mesocyclone development possible.
Storm Relative Helicity (SRH)	> 400	Tornadoes possible.
SWEAT Index	≥ 400	Tornadoes possible.
Wet-Bulb Zero (WBZ) Height	7,000 to 9,000 ft (mP)	Families of tornadoes.
	≥ 11,000 ft (mT)	Single tornadoes.