

Parameter	Comments
MLCAPE	Mean-layer parcel mixed over the lowest 100 hPa
MLCIN	
MLLCL	
MLLFC	
MLEL	
NCAPE	MLCAPE/MLEL
K_IND	$T_{850} - T_{500} + T_{d850} - (T_{700} - T_{d700})$
TT	CT + VT
CT	$T_{d850} - T_{500}$
VT	$T_{850} - T_{500}$
PW	Depth of liquid water if all water vapor were condensed from the sounding
HGT0	Pressure level of the 0 °C isotherm
ApWBZ	Height above ground level of the RAP pressure level with the wet bulb temperature nearest to 0 °C
W_LOW	Mean mixing ratio between 1000 and 850 hPa
W_MID	Mean mixing ratio between 850 and 500 hPa
RH_LOW	Mean RH between 1000 and 850 hPa
RH_MID	Mean RH between 850 and 500 hPa
ThE_LOW	Mean $\theta_e$ from 1000 to 850 hPa
ThE_MID	Mean $\theta_e$ from 850 to 500 hPa
ML_BRN	Bulk Richard number of the mean-layer parcel
$T_c$	Temperature of parcel lowered dry adiabatically from the convective condensation level
PEFF	As defined by Noel and Dobur (2002). PEFF equals the product of PW and the mean 1000–700 hPa RH.
DCAPE	Downdraft CAPE with respect to parcel with the minimum 100 hPa layer-averaged $\theta_e$ found in the lowest 400 hPa of the sounding.
WNDG	$(MLCAPE)/2000 \cdot (0\text{--}3 \text{ km lapse rate})/9 \cdot (1\text{--}3.5 \text{ km mean wind})/15 \cdot [(MLCIN + 50)/40]$ . Values larger than 1 indicate an increased risk for strong outflow gusts.
TEI	Difference between the surface $\theta_e$ and the minimum $\theta_e$ value in the lowest 400 hPa a.g.l.
MICROB	Weighted sum of the following individual parameters: surface $\theta_e$ , SBCAPE, surface-based lifted index, 0–3 km lapse rate, VT, DCAPE, TEI, and PW. Values exceeding 9 indicate that microbursts are likely.
SWEAT	$12(T_{d850}) + 20(TT - 49) + 2(U_{850}) + (U_{500}) + 125[\sin(U_{dir500} - U_{dir850}) + 0.2]$
0–3 km_SHR	Magnitude of vector shear between surface and 3 km a.g.l.
0–6 km_SHR	Magnitude of vector shear between surface and 6 km a.g.l.
0–8 km_SHR	Magnitude of vector shear between surface and 8 km a.g.l.
EBWD	Magnitude of vector shear between effective inflow base and one half of the MU equilibrium level height