

Errata: Estimation of maximum wind speeds in tornadoes

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Several typographical errors occurred in a recent article by the authors (Dergarabedian & Fendell, 1970).

The correct definition of the parameter K introduced in equation (6) on page 512 is

$$K = \frac{k^2}{4\pi^2 a^2 c_p (T_o - T_d)}$$

The remaining errors occurred in the second and third sentences of the footnote on page 514 of the article. These sentences should read as follows:

... the improvement is based on more carefully distinguishing among p_a (dry-air pres-

sure) p_v (water-vapor pressure), and p ($=p_a + p_v$). One result is the following expression for the moist adiabat, more accurate than the expression usually cited:

$$\frac{dT}{dp} = \frac{\frac{RT}{p_a} + \frac{L\sigma P}{p p_a}}{c_p + \frac{L\sigma + RT}{p_a} \frac{dP}{dT}}$$

where $\sigma = 0.622$, R is the gas constant for dry air, c_v and c_p are the heat capacities for dry air, L is the latent heat of water per unit mass, and P is the saturation pressure between vapor and liquid above freezing and between vapor and solid below freezing.

REFERENCE

Dergarabedian, P. & Fendell, F. 1970. Estimation of maximum wind speeds in tornadoes. *Tellus* 22, 511-515.