# EQUATIONS USED

## Three Sums Are Needed: $S_1$, $S_2$, $S_3$:

$$\delta p_i = -\frac{g\, p_i}{R_a\, T_{a,i}} \delta z_i \quad (\text{too noisy, second} - \text{by} - \text{second})$$

$$S_1 = \sum_i \frac{R_{a,i}}{g_i} \ln\left(\frac{p_i}{p_{i-1}}\right)$$

$$S_2 = \sum_i (z_i - z_{i-1})$$

$$S_3 = \sum_i \frac{z_i - z_{i-1}}{T_{m,i}}$$

## Then compare prediction ($T_p$) to observed ($T_m$)

$T_p = -S_2/S_1$ and $\overline{T}_m = S_2/S_3$, weighted appropriately