## CORRECTIONS TO MILLER, S., APPLIED THERMODYNAMICS FOR METEOROLOGISTS, 2015.

1. Page 8, Table 1.2: Correct the following two conversions to read:

$$T_K = \frac{5}{9}T_F + 255.38$$

$$T_F = \frac{9}{5}T_K - 459.69$$

- 2. Page 30: Paragraph beginning with "Diving through by ..." should read "Dividing through by ..."
- 3. Page 39, equation (2.63): Limits of summation are incorrect. Equation should read:

$$M_d = \frac{\sum_{i=1}^{4} m_i}{\sum_{i=1}^{4} \left(\frac{m_i}{M_i}\right)} \cong \frac{m_{N_2} + m_{O_2} + m_{Ar} + m_{CO_2}}{\left(\frac{m_{N_2}}{M_{N_c}}\right) + \left(\frac{m_{O_2}}{M_{O_2}}\right) + \left(\frac{m_{Ar}}{M_{Ar}}\right) + \left(\frac{m_{CO_2}}{M_{CO_2}}\right)}$$

- **4.** Page 42, Practice Problem No. 2: Delete last line of table containing information on neon (Ne).
- **5. Page 44, Practice Problem No. 9:** Heading of third column of table should read "Temperature from Ideal Gas Law [K]."
- **6. Page 81, sentence near bottom of page** should read "We also *have* two additional relations for specific heat:"
- 7. Page 103, equation (5.88): Equation number is incorrect. It should be (5.85).
- 8. Page 123, first word, top of page should be "than," not "that."
- **9.** Page 127, paragraph near top of page following equation (6.45): Currently reads "where  $W_{a-b}$  is the work..." This *should* read "where  $W_{b-c}$  is the work..."

1

**10.** Page 139: About half way down the page an expression is given for  $\Delta S_2$  that reads:

$$\Delta S_2 = \frac{p\Delta V}{T_H} = -\frac{(2.5x10^4)(10)}{(223.16)} = -1120.27 \left[\frac{J}{K}\right]$$

This *should* read:

$$\Delta S_2 = \frac{p\Delta V}{T_C} = -\frac{(2.5x10^4)(10)}{(223.16)} = -1120.27 \left[\frac{J}{K}\right]$$

11. Page 297: In the Summary of Stability, an expression for vertical acceleration is given that reads:

$$\frac{dw}{dt} = g\left(\frac{T_v - T_v}{T_v}\right) \cong g\left(\frac{T_v - T}{T}\right)$$

This should read:

$$\frac{dw}{dt} = g\left(\frac{\dot{T}_v - T_v}{T_v}\right) \cong g\left(\frac{\dot{T} - T}{T}\right)$$

**12**. **Page 327**, **under Severe Weather Exercise 2**: A link is given for the **Weather Prediction Center** that reads:

http://www.hpc.ncep.noaa.gov/dailywxmap/index\_20131110.html

This *should* read:

http://www.wpc.ncep.noaa.gov/dailywxmap/index\_20131110.html

13. Throughout the book, "Clausius-Clapeyron" is misspelled as "Classius-Clapeyron."