Surface Analysis

Plotting (10 points)
Using the map of the surface station plots, draw isobars in black at 2 mb intervals (1000 mb should be one line). Also, draw dashed isotherms in green at 5ºF intervals (70ºF should be one line).

Analysis (8 points)
Identify any fronts, boundaries, and pressure centers on the map with the appropriate symbols. (5 points)

Identify the different air masses on the map. (3 points)

Theory (7 points)
To answer the following questions, assume that this system is a developing extratropical cyclone:

• Why might this be a favorable location for extratropical cyclone development? (2 points)

• What direction would the winds likely be from at 500 mb? (1 point)

• Draw a west-east vertical cross-section of the trough axis. Explain why this configuration is beneficial to extratropical cyclone development. (4 points)