

Figure 1. GOES-13 visible satellite image valid during the local daytime hours on 26 January 2015. Image courtesy NOAA Environmental Visualization Laboratory and obtained from their website at http://www.nnvl.noaa.gov/.

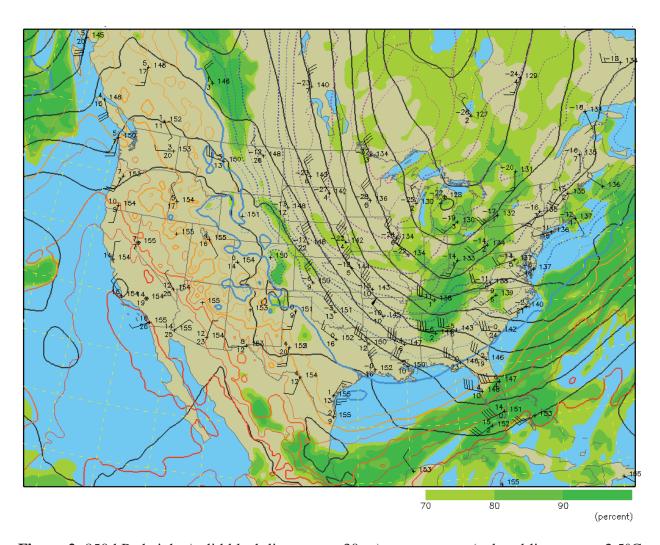


Figure 2. 850 hPa height (solid black lines every 30 m), temperature (colored lines every 2.5°C with negative values dashed), and relative humidity (shaded above 70% per the color scale at lower right). Station observations of temperature (°C), dewpoint depression (°C), height (dam, where 1 dam = 10 m), and wind (half flag: 5 kt, full flag: 10 kt, pennant: 50 kt) are plotted irregularly in black.

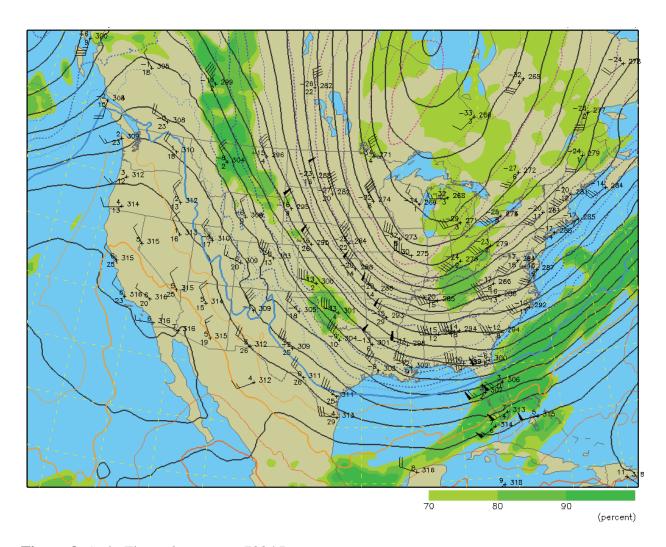


Figure 3. As in Figure 2 except at 700 hPa.

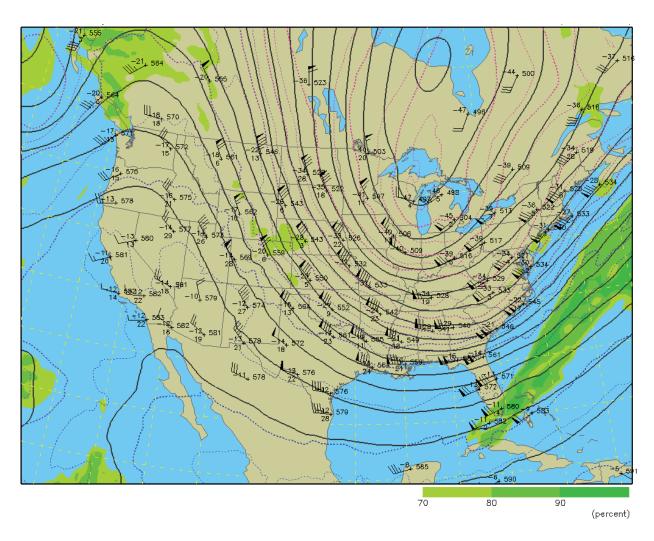


Figure 4. As in Figure 2, except at 500 hPa and with a contour interval 60 m rather than 30 m for 500 hPa height.

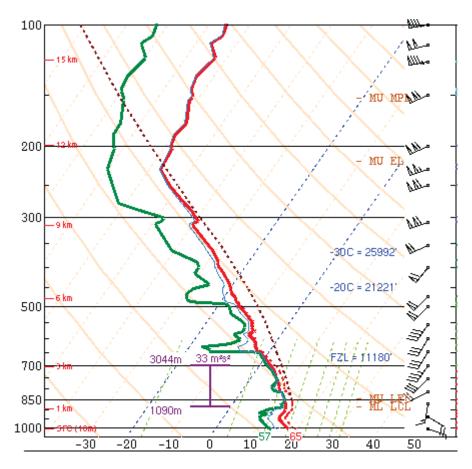


Figure 5. Skew-*T*, ln-*p* diagram for use with Question #4. Depicted are temperature (red line, °C), dewpoint (green line, °C), and wind (at right; half flag: 5 kt, full flag: 10 kt, pennant: 50 kt).