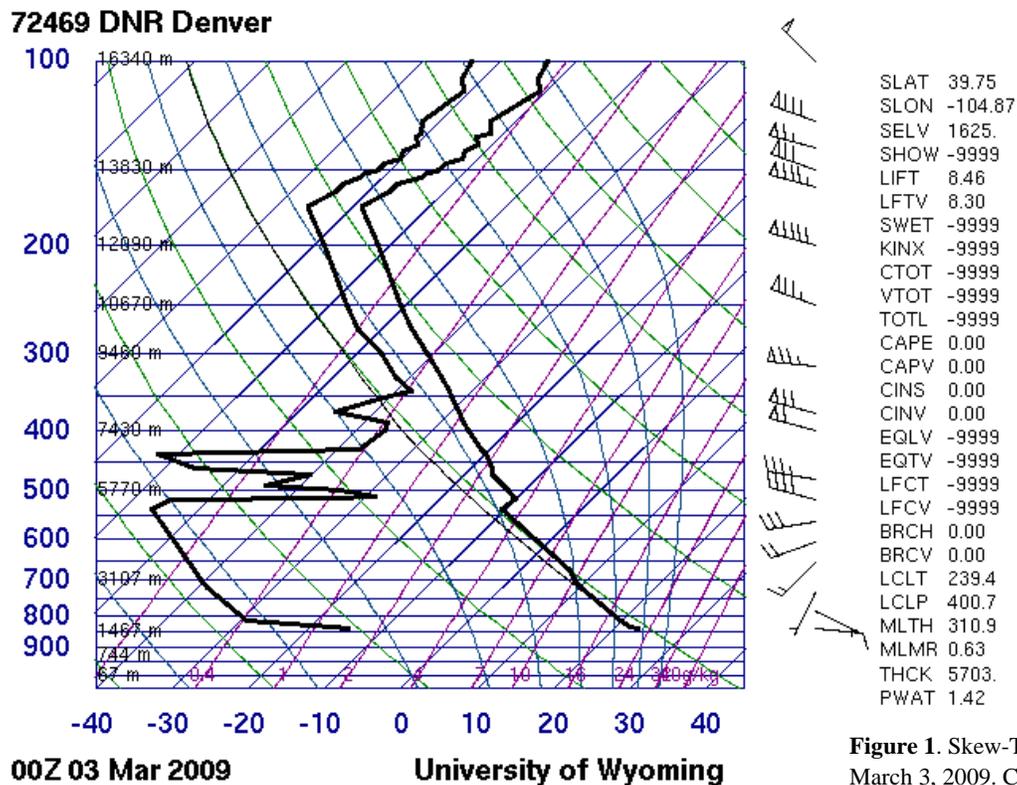


This shot was taken in Boulder, Colorado on the Durning lab porch on March 3, 2009. The shot is from ground level in a neighborhood. The shot was taken while looking directly upward, the Engineering center building took up a large portion of the shy line so a vertical shot was the only option. The estimated distance was about 7000 ft. The estimated field of view is 80 ft by 60 ft. The distance was not too high because of the clouds altocumulus structure. These clouds are typically only midrange structures composed mainly out of water droplets. The time the image was captured was approximately 3:15pm.

The altocumulus cloud type was chosen because of the shading the clouds had. Most higher level clouds do not exhibit any noticeable shadows. For example the cirrus cloud structures are so elevated and so thin that they do not exhibit any shadows. Also the appearance of the clouds seemed very “fluffy.” The etymology of cumulus literally means a heap of wool, that also influenced my categorization of the photographed cloud.

The Skew-T plot can be seen below in figure 1.



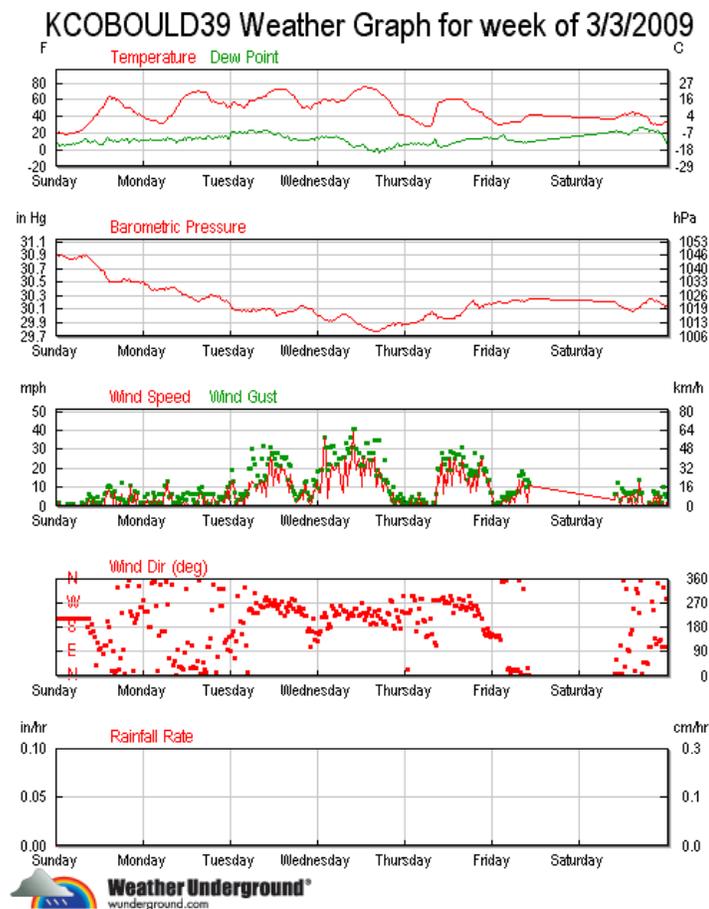
**Figure 1.** Skew-T plot for March 3, 2009. Covering the Denver Colorado region.

Interpreting the skew-t plot will highlight a few important characteristics of the weather when the picture was taken. One, the rightmost sounding line represents temperature. As elevation increases the temperature at that time continues to get cooler and cooler. As a consequence of that weather will usually become unstable in the near future. Further inquiry into

figure 1 will show that as the elevation of an air parcel raises then it's temperature also decreases or at least remains on the  $-40^{\circ}\text{C}$  temperature line. This instability reflects some sort of precipitation or storm usually. Aside from the skew t-plot forecasting changing weather the cloud itself is also an omen of a changing atmosphere. Alto cumulus clouds are usually the forerunners to an incoming cold front or some sort of thunderstorm because they signify the air moving upward to allow the colder air to sink to lower elevations forming a temperature differential conducive to storms.

However, the strange part was that for the next few days there wasn't much wind and the temperatures seem to be very pleasurable staying at an average of about  $70^{\circ}$  degrees! I suppose that goes to show you that although skew-t plots and a working knowledge of cloud characteristic is very useful from weather prediction nothing is guaranteed.

The following figure is taken from weather underground and shows the weather finding for the week I took the photograph. As stated earlier there are no significant signs of weather changes which somewhat contradicts the weather tendencies that follow alto cumulus clouds.



**Figure 2.** Plots for Dew point, Barometric pressure and Wind speed in the boulder area during the week of 3/2/2009.

I like this photograph because of the contrast between the blue of the sky and the white and grays of the altocumulus cloud structures. After alter the photograph to have high contrast and a higher blue content out bring out the vibrancies of the surrounding blues really makes this image one of my favorites.

**Figure 3.** Information on what aperture, shutter speed and other settings were programmed into camera.