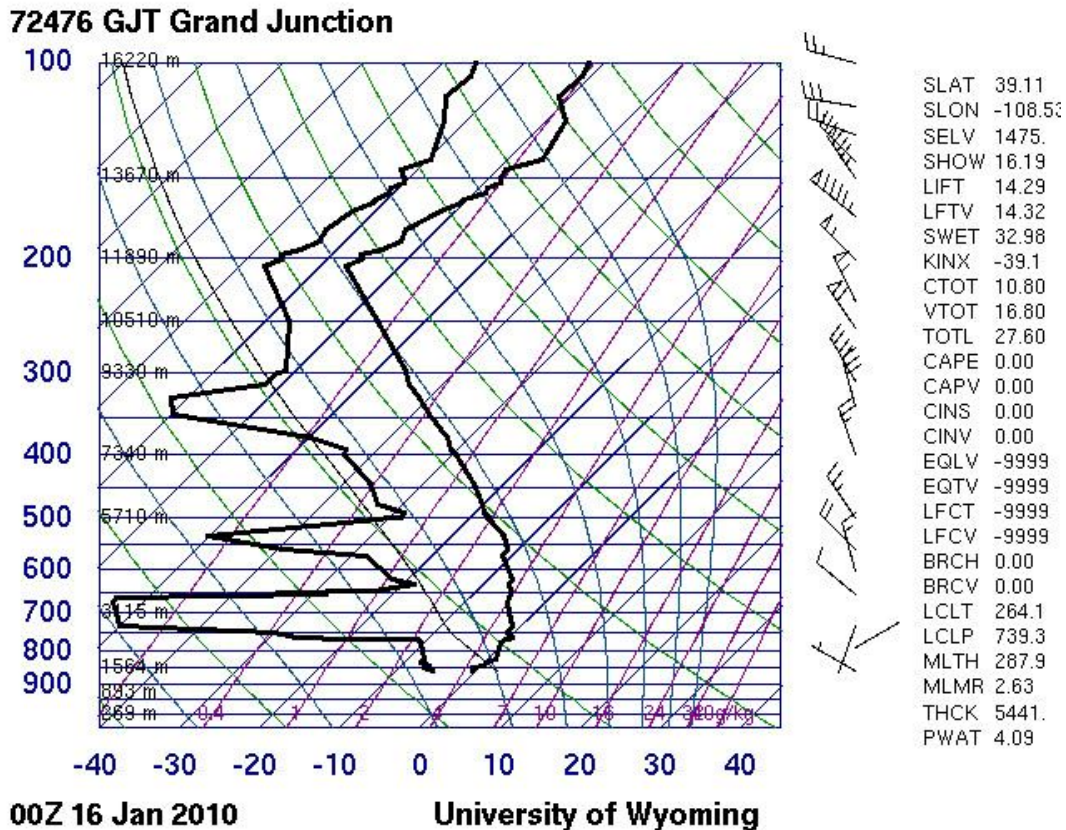
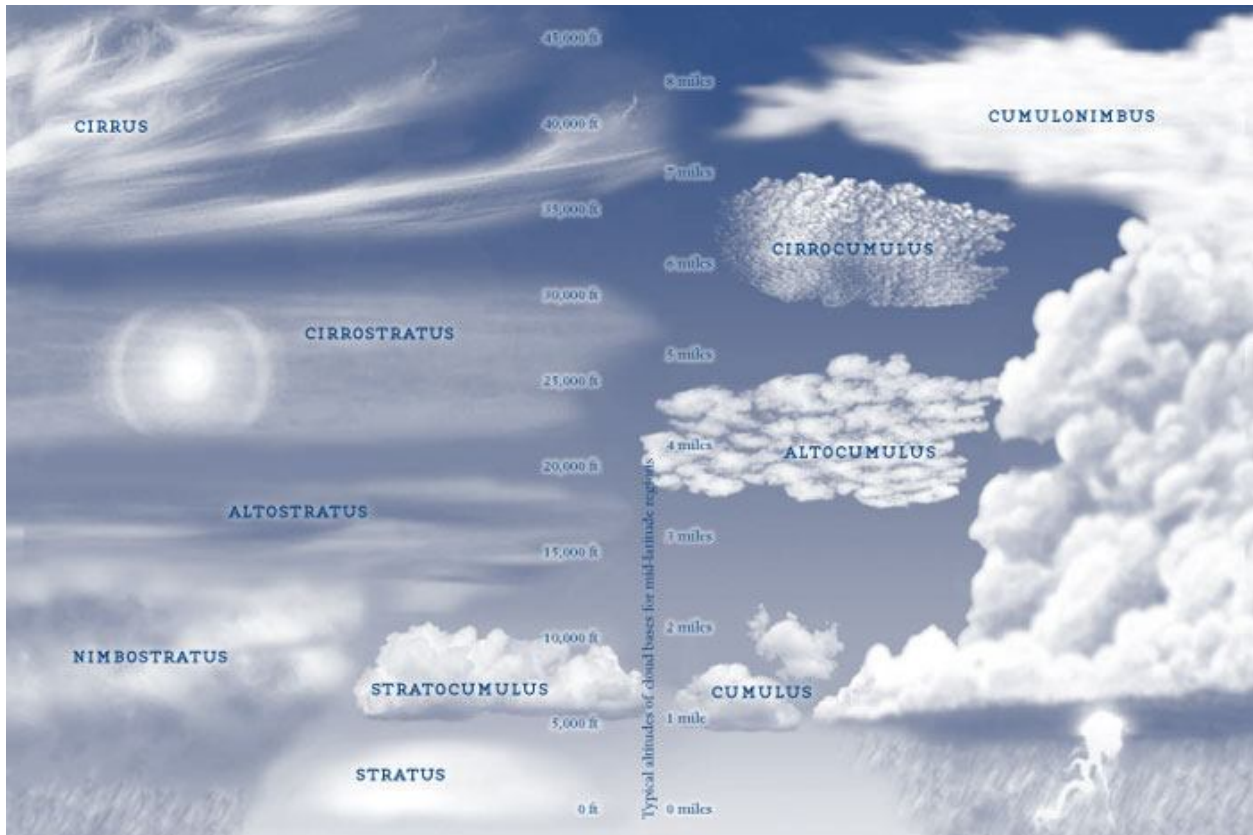


Clouds 1: Stratocumulus

This picture was taken from atop Alberta peak at the Wolf Creek ski resort. The peak is approximately 11,800 ft (3596 m) tall. From this altitude I was able to get a unique view of a stratocumulus cloud formation. I chose to take an image in a wide format and then further crop the image with a landscape orientation to create a dramatic view of the mountaintop rising from the clouds. The image was taken at 12:30 pm on January 16th, 2010. A skew-T plot for 6am in Grand Junction, Colorado is shown below [1]. It can be observed that at approximately 3300m altitude the atmosphere was stable. The clouds formed in the range of 10,000-11,000 ft (3,050-3,353m). In the skew-T plot below the dewpoint curve is the thick black line on the left and the temperature curve is on the right. For more information regarding reading a skew-T plot please see [2].



The image below shows a basic guide to cloud identification. The image is courtesy of the Cloud Appreciation Society [3]. Stratocumulus clouds, characterized by a grouping of large round masses [4], typically form in the range of 6,000 to 10,000 ft [3,4]. The description and altitude of the clouds caught in this image are in agreement with the general formation of stratocumulus clouds.



Post Processing:

The image was processed using Adobe Photoshop CS4. The curves were adjusted in order to increase the contrast and depth of color. In addition the saturation of the image was increased to bring out the blue of the sky. Contrast was increased to add depth to the cloudettes. Several non-traditional photo editing techniques were then use to "amp up" the image. First a duplicate layer was created of the image. That layer was then desaturated to create a tone map of the image. The tone map was then inverted. The blending style was set to overlay. This layer had the effect of increasing cloud definition as well as bringing out the mountain ridgeline. The original image layer was then duplicated again. The photoshop high pass filter was run. This filter has the effect of sharpening an image and creating dramatic edges. This layer was again set to blending mode overlay so that only the edges would be more defined. The opacity of this layer was then reduced to 60% to reduce the high pass effect. Finally the image was cropped into a large landscape and given a white border.

Camera Information:

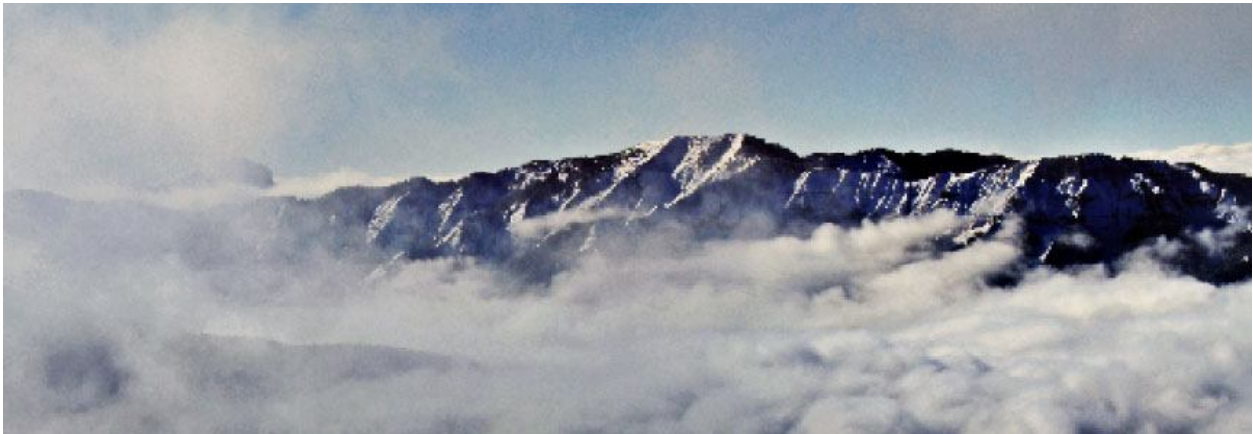
Camera: Canon EOS Digital Rebel XSi
 Date/Time: 1/29/2010 at 10:08 am
 Shutter Speed: 1/250 s
 F-stop: f/13
 ISO: 100
 Focal Length: 55mm
 Flash: DNF
 Original Dimensions (X-Y): 4272px-2848px
 Final Dimensions (X-Y): 3717px-1327px
 Color Space: sRGB

Comparison of Original and Processed Images:

Original:



Processed/Final:



References:

- [1] "Atmospheric Soundings". 2/26/2010. <http://weather.uwyo.edu/upperair/sounding.html>
- [2] "How to Read a Skew-T". 2/26/2010. http://www.atmos.millersville.edu/~lead/SkewT_HowTo.html
- [3] "The Cloud Collector's Reference". © Gavin Pretor-Pinney. 2/26/2010. <http://cloudappreciationsociety.org/collecting/>
- [4] "Stratocumulus Cloud". Wikipedia. 2/26/2010. http://en.wikipedia.org/wiki/Stratocumulus_cloud