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Flow Visualization  
Film 4515  
Cloud Image 2



## I. Purpose

This image is the second cloud assignment for Film 4515, Flow Visualization. The purpose of this image was to capture cloud phenomena as they occurred.

## II. Circumstance

This image was taken around 3:00PM outside of the Hellems building on the University of Colorado campus. I stood outside the entrance closest to the University Memorial Center and looked West, towards the flatirons. The camera was tilted at approximately a 30 degree angle.

## III. Cloud Information

This cloud is a stratocumulus cloud. It was in a stable environment based on the fact that the Cape was 0 (see Figure 1-). The only Skew-T plot available was from Grand Junction. The weather was relatively clear, though it did rain off and on throughout the day. There was also some snowing occurring up in the mountains at higher altitudes. It had snowed two days previous on Sunday, and this image was taken Tuesday April 6, 2014. There was a decent amount of wind, but nothing too strong. The wind caused the clouds to break up shortly after I took the image. The upper part of the image is proof of a previous cloud already having separated.

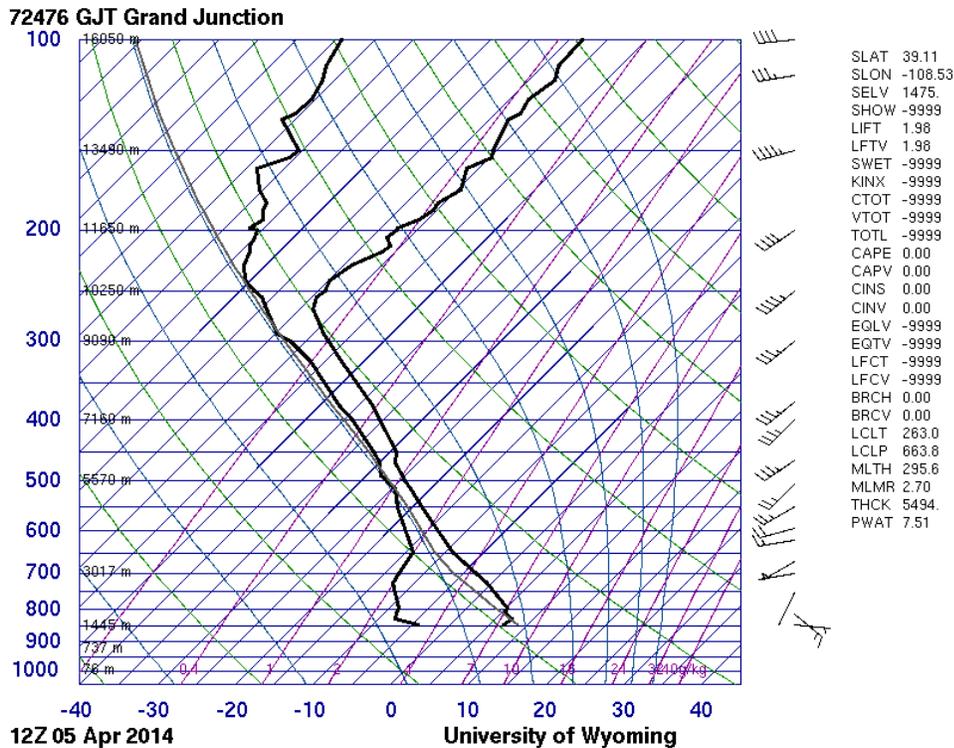


Figure 1

## IV. Photographic Technique

The image shown was taken with an I-Phone 4. Figure 2 shows the original image before any editing occurred. The final image was 2331x1645 pixels. The focal length was 3.85, The F-number 2.8, and the Exposure time was 1/4309 of a second. In order to focus I clicked on the mid-tone section of the clouds and the phone decided the exposure time and F-stop from there.

All editing was done using GIMP. The saturation was decreased to make the image black and white. The contrast was increased by a small amount in order to make the trees darker and bring out the detail in the clouds. The image was also cropped. Figure 2 shows the original image before editing.



Figure 2

## V. Conclusion

In the end I think the image came out well. The black and white was a good choice and helped bring attention to the cloud details. The physics are shown off well though it would've been nice if the clouds hadn't been behind a tree. Next time I will wait for the clouds to move out from behind the trees. It would also be nice to use a better camera to create better detail. There's a little bit of noise which could be eliminated since it takes away from the image.