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MCEN 5151

Clouds First – Altocumulus, 5:30 PM on September 25<sup>th</sup> 2019, Farrand Field, Boulder CO



**Context:**

The First Cloud assignment is an introduction into the identification and physics behind cloud formation. While I captured numerous photos throughout the month of clouds that caught my attention, the cloud image shown above won the show. I was originally looking for wispy clouds but I loved the paradox in the clouds shown above: shear and less dense but somehow still connected and full. I wanted to keep the tree in the image to give some context to the scale of the clouds. I did not zoom or crop this image, speaking to the massiveness of the clouds. In post processing, all I did was increase the sharpness because I wanted to see the defined curves of the density within the wispieness.

**Circumstances:**

This photo was captured in Boulder, CO on Farrand Field, right in the middle of campus at the University of Colorado. The camera was facing east and at approximately 60 degrees with respect to the ground. The image was taken at 5:30 PM MDT on September 25<sup>th</sup>, 2019. Had I waited a bit longer to capture this image I would maybe have seen the colors from the sunset reflecting off of the clouds, adding a warmer feel to the image.



### **Photographic Technique:**

I captured this photo while I was at marching band practice, so I did not use a high-tech camera to take the photo and used my iPhone 5SE camera instead. I was pleasantly surprised by the quality of the picture, but I also realized I would need to use photoshop to create a clearer image that could better capture what was happening in the clouds. Based on the raw data, it shows that my aperture was f/2.2, the shutter speed was 1/1900 sec, the ISO setting was 25 with a focal length of 4.15 mm, and the original image size was 4032 x 3024 pixels.



A couple settings were manipulated in post processing. First, within curves, the input and output were both adjusted to 61. These values did not stray too far from the original image, but still darkened the blue background to bring out the shape of each of the clouds. Next, to define the borders a touch more, I used “unsharp mask” in the sharpness filter. The amount was set to 48%, radius was 20.8 pixels, and threshold was 0. I was a bit worried that the background would look unrealistic, but after comparing the original with the final, it appears that the image is still realistic, although just a bit more enhanced. Having the tree in the foreground helped in post processing to determine if I was going too far in editing. Clouds can sometimes surprise us in their variable nature, but one can always tell that a tree is a tree.

### **Image Conclusion:**

This image, although seemingly simplistic, describes an interesting physical phenomenon of the transition from one cloud type to another depending on atmospheric stability. Originally, I wanted to capture the range of one cloud type filling the sky. I believe this image achieves my original intent, but later on I discovered I wanted to capture a picture that looks like how a cloud feels. It is strange to say that, but I believe the image above is smooth. To improve on my next picture, I would still like to get more familiar with the capabilities of photoshop to improve the quality of the photo while not sacrificing

the fact that it is still a nature photo. I also want to play with the idea of having more of a foreground to show the scale of the clouds.

References:

[1] University of Wyoming College of Engineering. Retrieved from:  
<http://weather.uwyo.edu/upperair/sounding.html>