Clouds Second Report

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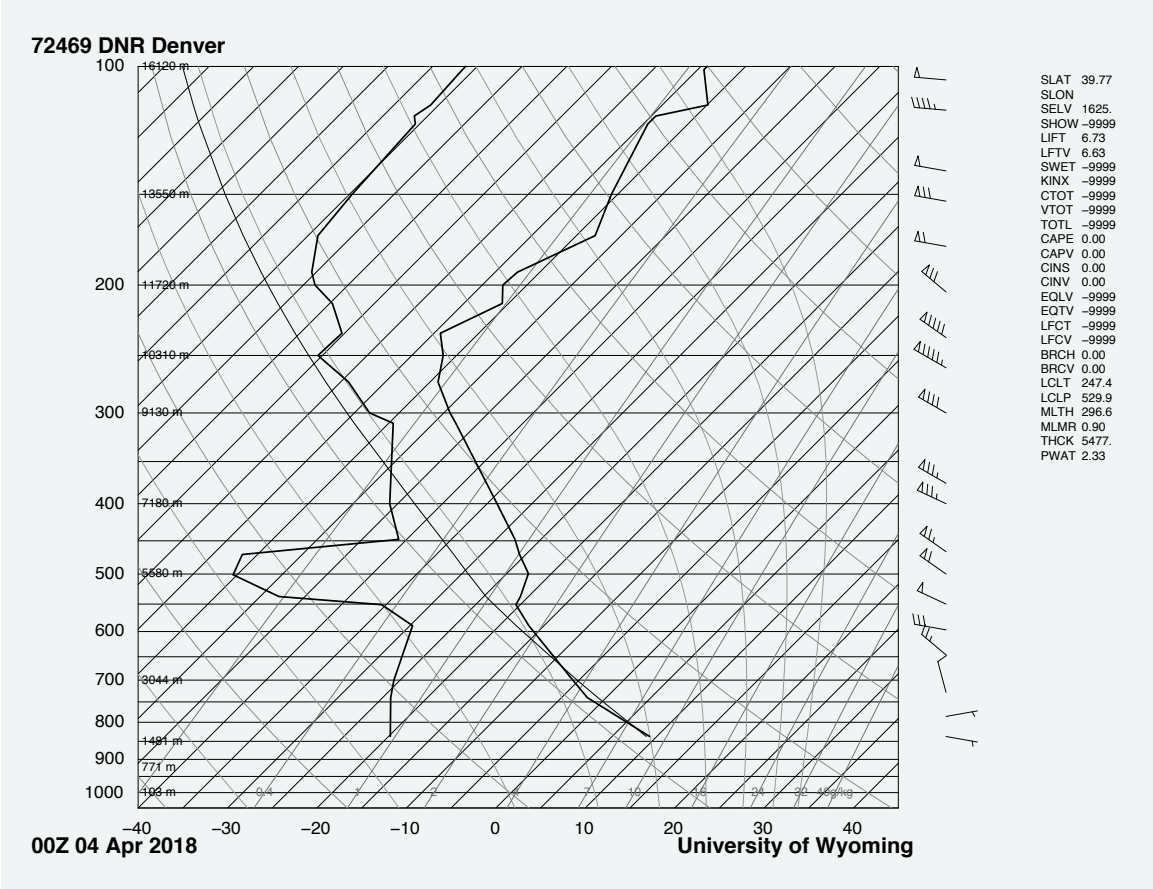
For my second clouds assignment, I decided to take a picture of a cumulus cloud during the evening. The day that I took this image, it was very overcast and there was a light rain that night. The temperature reached a high of 60 degrees and had a low of 28 degrees. When I captured my picture, I was walking home from class and noticed some very interesting cloud formations in the sky. Initially, I faced north and took a picture of some high elevation stratus clouds, however, they were not very interesting even though they had some intriguing patterns. Then, I faced south and captured a clump of cumulus clouds, but they blended together so it was hard to depict one cloud from another. Finally, I faced west towards the flatirons and found a lone cumulus cloud below some stratus clouds and knew that a picture of this cumulus cloud would make for an interesting picture.

I took my clouds second image on April 4th at 5:30pm looking west towards the flatirons. I was standing outside of my neighborhood on Pennsylvania Ave when the sky was very overcast with a mix of cumulus and stratus clouds in the sky. There was a slight chilly breeze coming from the north when I took this picture, which meant a cold front and light rain were coming in during the night. My camera lens was tilted about 35 degrees from the horizon in order to capture the cumulus cloud that was the main focus of my image with some higher elevation stratus clouds outlining the top of my picture.

Figure 1: *Final edited cloud image*

The cumulus and stratus clouds that I captured and edited in Photoshop can be seen in Figure 1. When I took this picture, the temperature outside was about 50 degrees. It had cooled down during the day from the high of 60 degrees earlier. On April 4th, it was fairly sunny outside when I first went to class at 9am, however, the temperature cooled off as the day went on and more clouds rolled in due to the wind. The weather and clouds were pretty similar during the previous several days; temperatures in the 50s and 60s with partly overcast clouds. It had slightly rained during the night before I took this image, so it was not surprising that there was a little rain on the night of April 4th.



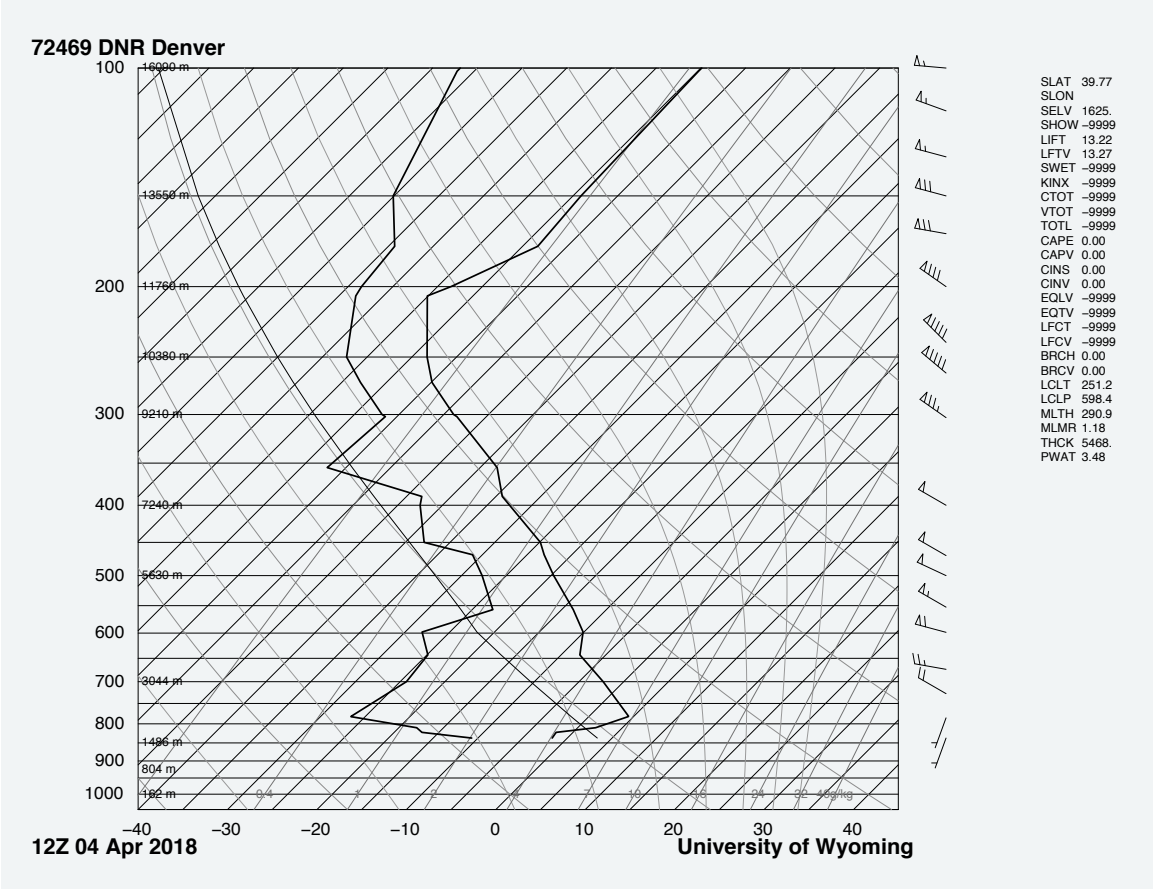


Figure 2: *Skew-T diagram for April 4th*

By inspecting the skew-T diagram in Figure 2, the atmosphere appeared to be unstable during the first part of the day, meaning the lowest levels of air were warmer and more humid than the air above it. This warmer air rises in the atmosphere, and since there is only colder air above it, this warm and humid air continues to rise. However, later in the day when the cold front came in during the late afternoon and evening, the atmosphere became stable because the temperatures of the different layers of air evened out. When I took my image of the cumulus and stratus cloud at 5:30pm, I think the atmosphere was stable because the cold front had moved in and there was not much cloud movement. I looked back outside a couple hours at the same cumulus cloud that was depicted in Figure 1 and saw that it had moved south (due to the wind), but not change much in elevation.

Once I captured the cumulus and stratus clouds using my Nikon D90 DSLR camera, I uploaded the image to Photoshop to do some cropping, contrast and brightness editing, and color enhancing. The original picture I took can be seen in Figure 3.

Figure 3: *Original unedited cloud image*

By comparing Figure 1 and Figure 3, it can be seen that I cropped out the borders of the image because there were distracting elements in the picture that took one's focus away from the clouds. I also turned the brightness of the image down because the light from the sun underneath the stratus cloud in the top left corner of the image was too bright. I played around with the saturation level to get the orange hue reflecting off the clouds from the sun that made the image not so black and white and overall more interesting. Lastly, I turned the color contrast up so it is easier to distinguish the stratus clouds on the top and in the background from the cumulus cloud in the center of the picture.

I really like my final edited image of the clouds because it forces the audiences attention to be on the cumulus cloud. However, after looking at the picture longer, one can notice the sunrays peeking through the stratus clouds and the peak of the flatirons. If I could improve this image in any way, I would have liked to get more colors in the picture, such as some blue sky or some green of the trees at the bottom of the image. The mood of this image is pretty monotone with its grayscale look; however, it gives the picture an ominous feel that I appreciate. Overall, I was satisfied with this assignment and my image because it taught me more about cloud formation, atmospheric stability, and Photoshop techniques.

References

[1] *Atmospheric Soundings*, weather.uwyo.edu/upperair/sounding.html.

[2] "Boulder, CO." *AccuWeather*, www.accuweather.com/en/us/boulder-co/80302/april-weather/327347.

[3] Tiffany Means. "What Kind of Cloud Is That??" *ThoughtCo*, www.thoughtco.com/types-of-clouds-recognize-in-the-sky-4025569.