

Cloud Report #2

Nicole Lubinski
Film 4200
Professor Hertzberg
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Introduction:

The purpose of this assignment was to photograph clouds in order to both: display the artistic properties of clouds, and to demonstrate the diverse physics behind different types of cloud formations. Originally, my idea was to photograph the magnificent Tucson sunsets (Figure 1) during my trip to Arizona the weekend after spring break. I had booked flights that overlapped with sunset, and strategically chose window seats in hopes that I could capture images from the plane as well. However, my equipment unfortunately broke right before the trip, so I had to submit a backup photo that was taken during spring break. Therefore, the submitted image did not have much pre-planning, though it does clearly demonstrate the beauty of clouds and displays several various types of cloud formations.



Figure 1: Arizona Sunset, taken in 2010

Image Context and Cloud Analysis:

My photograph was taken from a mid-mountain run at Arapahoe Basin ski resort located in the White River National Forest of Colorado. The peak of the mountain reaches 13,050 ft. elevation, while the base stands at 10,780 ft. As this photo was taken mid-run, I would estimate the elevation to be approximately 11,500 ft., around where “Sundance” meets “North Fork” (Figure 2). The photo was taken around 2:00pm on March 27th, 2014, with my camera was facing Northwest so that the Southern side of Loveland Pass was pictured.



Figure 2¹: Map of Arapahoe Basin Trails, the star marks the location from where the photo was taken

On March 27th, the weather had been mostly cloudy all day, with small breaks of sunshine. For the previous several days, there had been a large snowstorm moving through the mountain range. There was no precipitation on March 27th, as these clouds were the residual tail end of the storm that had passed through. As the day progressed, the cloud cover

grew thinner until they eventually revealed a clear night sky.

The clouds pictured are a combination of altocumulus, altostratus, and cirrostratus. The altostratus clouds comprise the sheet of textured cloud cover that gives the photo the varying blue and gray color effects. These clouds typically form in high elevations between 7,900 ft. and 20,000 ft., and are often composed of ice crystals, which can cause halos to form around the sun². Altocumulus and cirrostratus clouds also occur at high elevations, and while the altocumulus clouds make up the streak of fluffy clouds across the ridgeline, the cirrostratus clouds form the smooth, wispy layer of fog-like cloud cover across the entire sky².

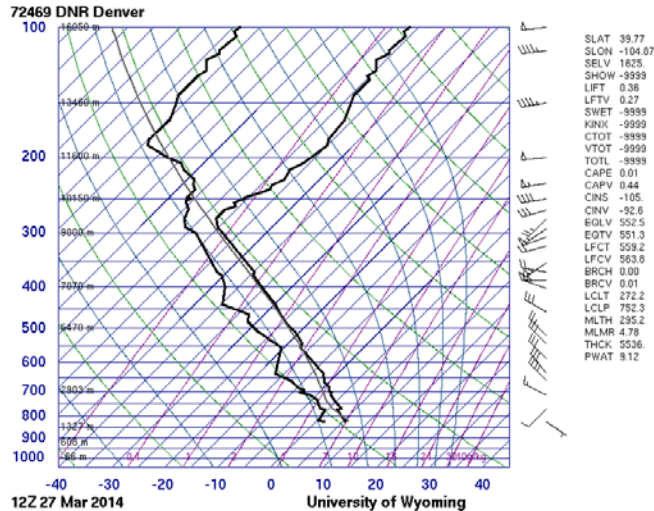


Figure 3³: Skew-T Diagram for Denver, March 27th, 2014

warm for the peaks of the Colorado Rockies during late winter, the temperature was not quite 50° F; perhaps the inconsistency in data is due to the distance between locations of the photo and weather station which recorded the Skew-T diagram.

I referred to the Skew-T diagram for Denver at 6:00pm, March 27th, 2014, as this was closest to the time in which I took my image (Figure 3). Though the picture was taken over 60 miles from Denver, the Denver station was the closest to the area. The diagram shows the temperature to have been around 50° Fahrenheit at Arapahoe Basin's elevation, with a CAPE value of 0. This means that the conditions were relatively stable, since the previous days' storm had fizzled out. While the day was unusually

Photographic Technique:

The camera that I used was a Canon Rebel XS 10.1 MP DSLR camera with an image-stabilizing, EF-S 18-55mm standard/wide angle zoom lens. This lens has an aperture range of f/3.5-5.6 and was set at f8 at the time. Even though there was no direct sunlight, and the scene was rather cloudy, the snow and clouds reflected the midday sun, requiring the use of a higher f-stop. The white balance was set to "cloudy" while the shutter speed and focus were set to Auto. Normally, I would have tried the HDR effect in order to capture a perfectly exposed image which neither silhouettes the mountains nor overexposes the cloud, but since I was taking this in the middle of a ski slope, I needed to be quick to both avoid getting passerby skiers in the shot, and also avoid getting run over. The ISO was set to 200 to allow for more light sensitivity in the dull lighting, while avoiding film grain. Both the original image and the edited image measure 3883 × 2506 pixels.

Since the camera was set to Automatic shutter, the sky was slightly blown out. Therefore, in Photoshop I used the Magnetic Selection tool to select only the sky, and then used the Burn tool at about 40% to manually paint over the portions of sky in which

I wanted higher contrast. By using the Burn tool, I was able to darken the sky and bring out details in the clouds, which were hidden before. No other photo manipulation was done, as I was pretty pleased with the color temperature, brightness, and framing of the photo.

Reflection:

All things considered, I am rather satisfied with my image. I really love the way that the snow is visible blowing off of the peak in the top right, and I love the saturated colors that were captured naturally. I also love the blue and gray effect and the way that the color palette sets an ominous tone for the photo. While it would have been preferable to have been able to expose the picture perfectly in-camera, I feel that the simple editing effectively brought out the necessary detail in the clouds.

My main critique of this photo is that the clouds are not the star of the picture. However, in order to better draw attention to the clouds in this scene, I would have had to crop out more of the mountains below and have the sky take up the majority of the photo. I was hesitant to do this, as I felt that such cropping would disagree with the Rule of Thirds and create an awkwardly framed photo. The other option would be to crop the bottom scene out entirely and zoom in (perhaps with a telephoto lens) on a specific area of the clouds, though I feel that the mountains are part of the beauty of the scene, and cropping them out entirely would make for a less dramatic photo. Therefore, perhaps next time it would be advisable for me to find a different scene, angle, or situation which would allow me to better capture the clouds as the emphasis of the photo.

Works Cited:

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- ² WeatherOnline Ltd.. "Weather Facts." *WeatherOnline*. N.p., n.d. Web. 15 Apr. 2014. <<http://www.weatheronline.co.uk/reports/wxfa>>.
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