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Clouds Second Report

MCEN-4151

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This image was taken for the clouds second assignment (figure 1). The intent of the image was to understand the clouds shapes from a plane's perspective. I was traveling from Colorado to Los Angeles and I saw these clouds when I took a look through the airplane's window. The clouds were grouped together and seemed like a pillow or a tuft of cotton.

Figure 1: Edited image of the clouds

The image was taken above Denver International Airport when the plane was around 6000ft above sea level. My trip was on March 26th, 2018 and the image was taken at 2:25pm. As I mentioned in the previous paragraph, I was traveling from Denver to Los Angeles. However, the plane was facing North West during that time of the trip.

Since the clouds were puffy and had a cotton-shape, I assumed that they were cumulus clouds. However, the fact that the plane was 6000ft above sea level was a good evidence to prove that these clouds were cumulus clouds. The sky above these clouds was clear. Since these clouds were cumulus, the weather was unstable during that day. It also did not rain nor snow during that day or the day after it. The following is the closest Skew-T diagram that I took from the University of Wyoming website during that day.

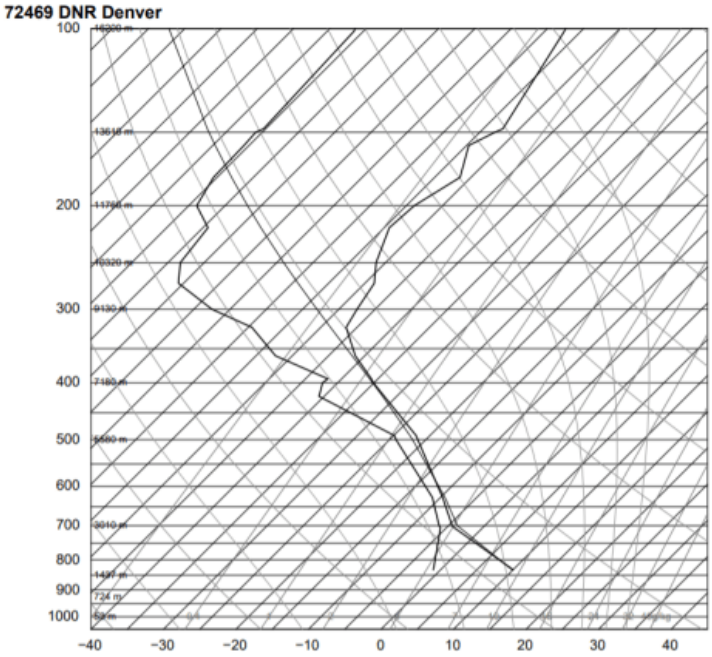

Figure 2: Skew-T diagram

I used my iPhone 7 camera to take this image. The camera is a 12 MP camera with f/1.8 aperture. The field of view was several miles while the clouds were not too far from the camera as the plane was hovering right above the clouds. Regarding post-processing, I had to decrease the brightness slightly to make the clouds look better. I also had to increase the contrast of the image in order to give the clouds a sharper look. The following image is the actual image without editing, it looks almost the same as the original image.

Figure 3: Original image before editing

The image was 4000 pixels wide and 3000 pixels in the height. I did not crop the image, so both images have the same size in terms of pixels. Initially, I thought about removing the airplane wing but then I decided to keep it. The wing was kept in the image to show approximately how far was the plane from the clouds. It also shows an approximation of the clouds size.

The image reveals the shape of cumulus clouds and how they form like a pillow. It also shows the clouds from a different perspective, from an airplane perspective. I like the angle the image was taken at; since it shows that the clouds were touching each other. In fact, the clouds were slightly separated from each other, so they were not really touching each other. Since it is really difficult to have different views on the same flight, I would like to try taking an image from a higher distance to have a larger field of view and different angle.