

# Clouds First Report



Flow Visualization

MCEN 4151

Team First

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I captured a picture of cloud. The phenomenon I found a fluffy cloud right above the REC center and I decided to use that cloud as my submission of Cloud First Image. I wanted to make the cloud fluffy in the image, so I focused on the surface of cloud and make the cloud at the center of frame. The sky was clear and very bright blue, so the cloud was seen very well.



*Figure 1: Pre-Photoshop/Original Image*

The figure 1 is showing the pre-photoshop/original image. The pre=photoshop has more margins around the cloud object. I trimmed the edge of surroundings out and increased color saturation and brightness in order to make my image look nicer. The cloud is an aerosol comprising a visible mass of minute liquid droplets, frozen crystals, or particles suspended. The cloud forms when the invisible water vapor in the air condenses into visible water droplets or ice crystals. It sometimes contains tiny gas particles or dust. Five main factors that cause to form the cloud are surface heating, topography forcing, frontal, convergence, turbulence.

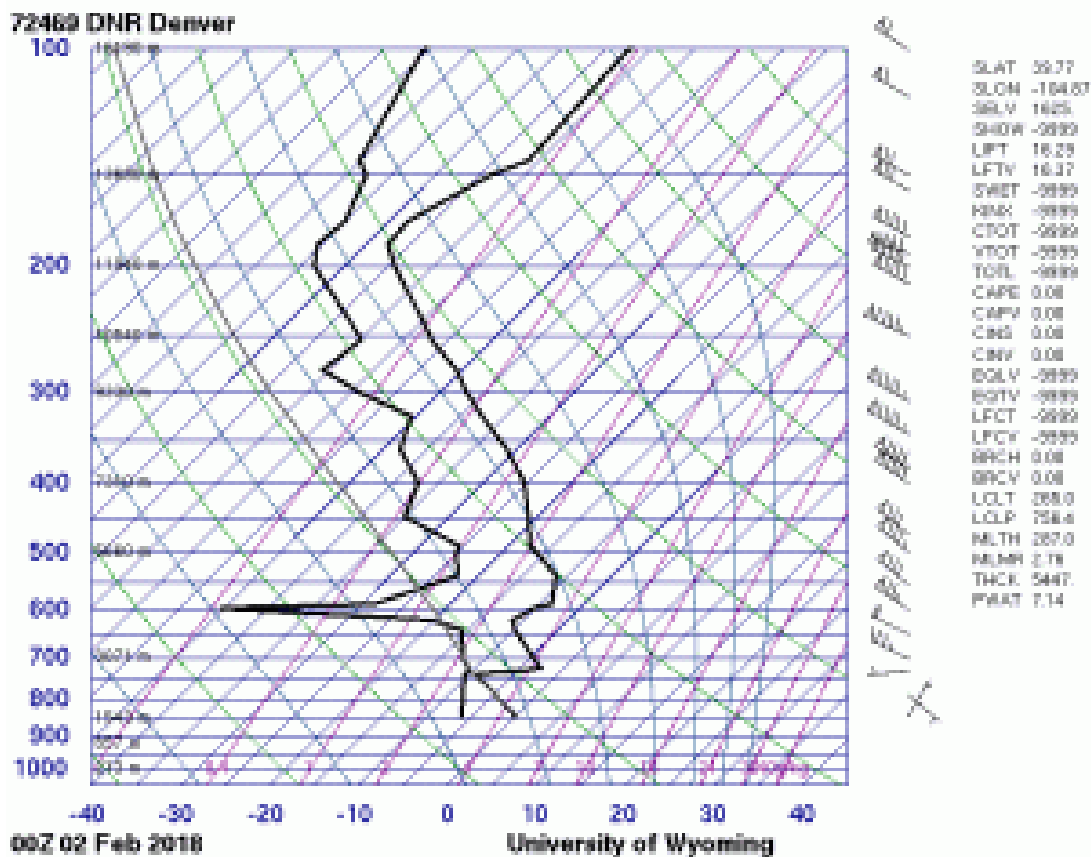


Figure 2: Skew-T Diagram of The Day That The Cloud Is Captured

Figure 2 is the skew-T diagram of the day that the cloud is captured. As the diagram is shown, the value of cape is 0.00, which means the atmosphere was stable at the moment

when the picture was taken.

I have used iPhone as my shooting method, and iPhone has two different lenses which are wide-angle lens and telephoto lens. The wide-angle lens measures 28 mm, and the telephoto lens measures 56 mm. From the EXIF data, we know that the focal length is 3.9 mm. The camera specifications are 1080p at 60 fps, 7 MP, f/2.2 and 32 mm. I reduced video quality to 720p from 1080p due to the size of video by using iMovie.

In my opinion, the image came out well. It is captured the behavior and shape of the cloud very well. The color saturation emphasizes my cloud more and makes it beautiful. A question I could ask is why cloud is white on clear climate. I think that it would be a significant improvement if I use more professional camera to capture the cloud.

## Works Cited

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