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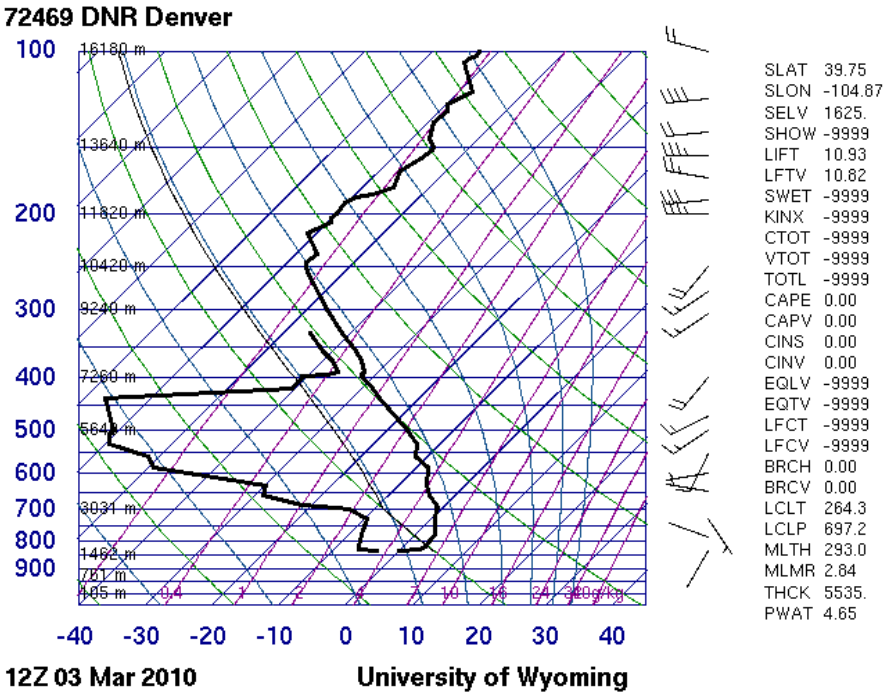
Flow Visualization
Clouds 2 Report

The purpose of this image was to capture a unique cloud image. This is for the second cloud project for the Flow Visualization class. My intent for this image was to capture a cloud that was unique from the rest. I wanted to capture a cloud that you don't see everyday. You see cumulus and stratus clouds all the time, especially in Boulder, and I feel that this image strays away from those general categories.

I took this cloud image in Boulder, Colorado. I was on the University of Colorado campus near the engineering building. The image was taken from the east side of campus looking west towards the Flatirons. When I took this image I was angling the camera about 30 degrees above the horizontal. The clouds were very large and covered a large portion of the sky, so I had to get a sharp angle in order to capture the whole cloud. It was a little after 11am on March 3, 2010 when I took this image.

The clouds in this image are cirrus fibratus clouds. This is a type of cloud that is whispy looking and streaks across the sky. They have sort of a mare's tail look to them, and are very high in the sky. When I was viewing these clouds, the rest of the sky around them was a bright blue color. They seemed to be the only clouds in the area, and stood out very well against the blue sky. The weather that day was very nice and sunny. It was warm in Boulder, but the evening turned out to be a little windy. The morning was very nice though. As seen front the skew-T plot on the right, it was a relatively calm day. The CAPE value was zero, which implies a calm morning. From the skew-T it looks like the clouds were forming around a height of 7200 meters or so.



The photographic technique used for this image was me standing with my camera. The use of a tripod was not necessary for this image. The estimated field of view for this image is about 3,000meters. By estimating that the clouds were at a height of 7200 meters, and the clouds were wider than they were tall, I could estimate that the clouds were roughly 3,000meters wide. Using the law of sines, I was able to estimate the distance from the cloud to my camera lens to be 7800 meters. The type of camera that I used for this was a digital Canon PowerShot SD630 digital elph. It has a 3x zoom lens, and has 6Megapixels. The lens focal length was 5.8mm. I used a shutter speed of 1/640 second, an f-stop and aperture value of 5.6, and the picture was 2816 x 2112 pixels in size. I did not use any Photoshop editing on this image.

This image reveals a type of cloud not often seen. What I like about this image is that the lines from all the clouds all angle towards the Flatirons. It is almost as if they are all moving towards them. What I think could be improved in this image is the sharpness of the lines in the clouds. I could have used Photoshop to clean up these lines. All in all, I think that I produced a quality image that represents a unique and distinguishable cloud.