

# Clouds Assignment



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**MCEN 4151: Flow Visualization**

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### **1. Introduction:**

This is a description of the image that I submitted for the Clouds assignment. The content of the image is clouds in the sky over the twin lakes. The purpose of the image is for us to appreciate and get to know clouds.

### **2. Type of cloud:**

The type of cloud that I visualized was stratocumulus. The stratocumulus clouds are characterized by being in large group and rounded shape. The height of the stratocumulus clouds are usually below 8000 ft.

### **3. Visualization technique used:**

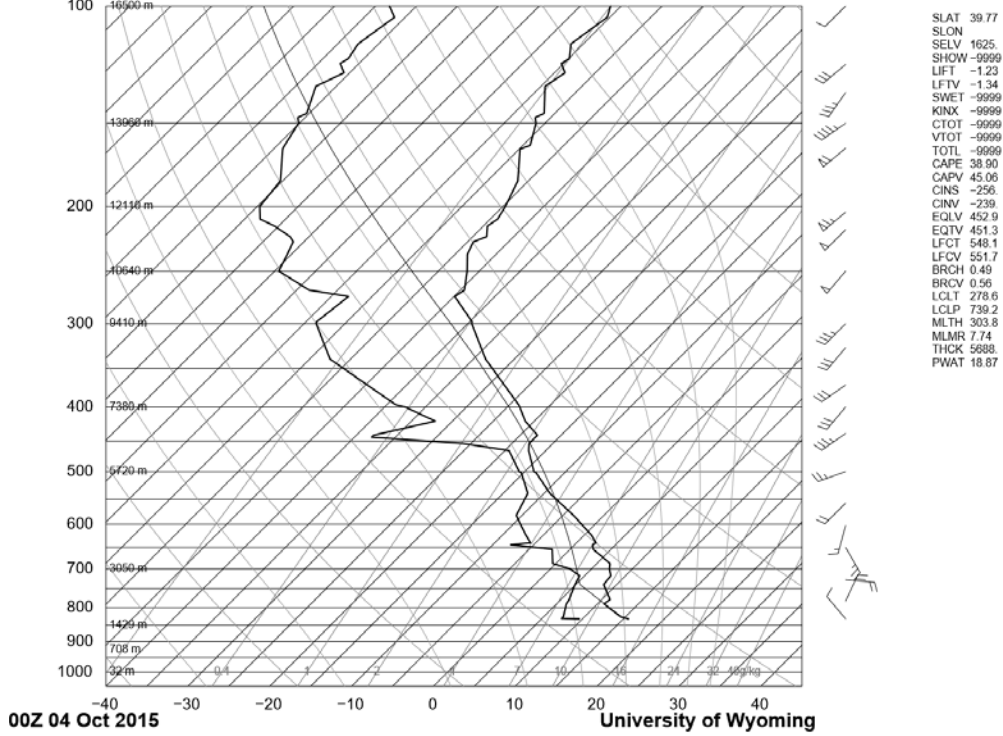
To get a better and clear view of the clouds, I drove to Twin Lakes, CO and visualized the clouds over the lakes on Oct 4, 2015. The altitude of the spot is 7800ft according to the road sign. The height the clouds was around 8000 ft. the time of the day when I took the pictures are around 4PM since the sunlight is not too bright to cause over-exposure.

### **4. Photographic technique:**

For this image I used my Canon 5D Mk III camera with a Canon wide-angle lens. To get a clear and sharp image of the clouds, I set up the exposure as 1/160 sec at f/5.6. I set up the ISO to 100 to ensure there is not too much noise on the photo. I was holding the camera in my hands. The focal length is 14mm. The field of view was 40 degrees horizontally, 27 degrees vertically. The dimension of the original image is 5760 x 3840. I used LightRoom as my photo editor. What I did was lowered the temperature so that the sky looks bluer and the clouds look whiter. I also cropped my image to a dimension of 5757 x 3306 to get rid of the objects on the ground.

### **5. Skew-T diagram**

# 72469 DNR Denver



This is the Skew-T diagram for Denver Station on the same day that I took the picture.

The skew-T diagram shows that the weather was not stable because the CAPE number is not 0.



Original image



Final image

## 5. Conclusion:

The image successfully captured what the stratocumulus clouds look like. What I like about the picture is that other than clouds I also included the beautiful view of the lake.

What I didn't like about the picture was that I used the function HDR when I was taking this picture, the HDR function on the camera automatics took three pictures and generated a JPEG file. This limited what I could do for editing.