

Clouds First Report



Axel Escareno

Flow Visualization: The Physics and Art of Fluid Flow

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For this assignment, I was waiting till I saw a cloud and sky that really caught my attention. I was driving back from the flatiron mall, and on my way back to campus the sky looked beautiful because of the light going through some of the clouds. I asked my friend Winfred if he could take the picture for me, and he was able to capture some images that were great, and I especially liked this one.

The image was taken while travelling on Highway US 36 pointing towards the Flatirons. The image was taken on Oct. 10, 2020 at 5:24pm.

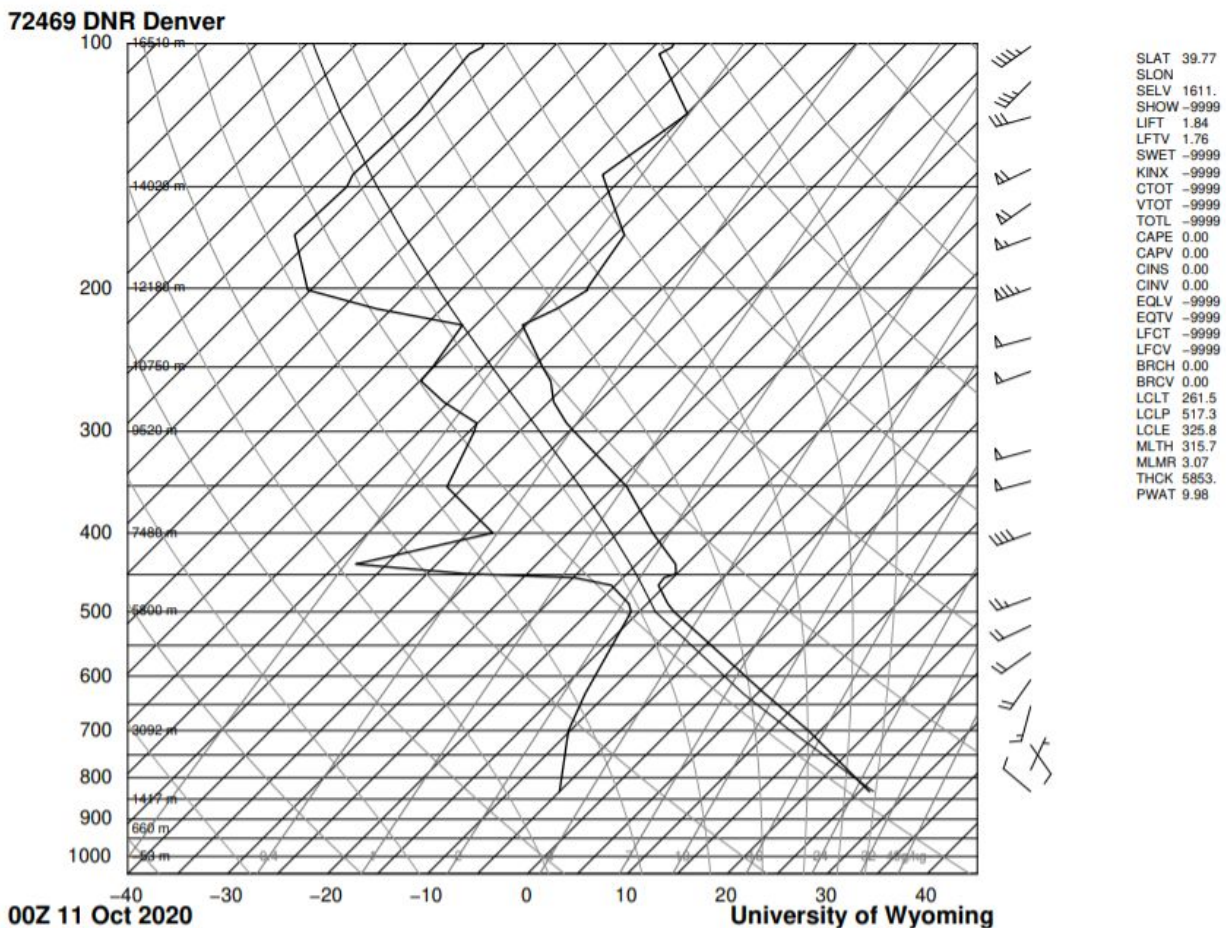


Figure 1: Skew T Diagram

Based on the skywatch data it seems that at the time I took the image there were clouds ranging from 4 to 7 km in altitude. This means that my best guess of what kind of clouds they were was right. The clouds were alto-stratus and altocumulus which agrees with this data. The Skew T diagram shows me that the atmosphere was stable because the Cape number is 0.

The camera setup consisted of an iPhone 8. The original dimensions were 3024x4032 pixels. The camera had a f-stop of 1.8, with an exposure of 1/30s, an ISO of ISO-25, and a focal length of 4mm. In the post-processing I brought up the lights and darkened the darks to try and put more attention on the clouds instead of the highway. I also added a frame around the image to give it a portrait look.

I am not too proud of how the whole image turned out. I left too much landscape at the bottom of the image that detracts from the clouds. In the future when I am taking pictures of clouds I will make sure that there are no other objects in the image and if there is, that it is very subtle.