Sam Nicastro
Clouds Second
Flow Visualization 4151-003
November 23, 2024
Image taken near William's Village in Boulder, CO at 4:56 PM, November 13, 2024
Stratocumulus

Clouds over Will Vill

I took this image, **Figure 1**, for my Clouds Second project for Flow Visualization. I was walking out of the Village Center Dining Hall and thought that these clouds looked beautiful with the sunset reflecting off of them. I also really like how they look kind of fake. They look like someone was doing a poor job of drawing a cloud with perspective. They kind of emerge out of a point far away and engulf the sky as they get closer. I also like the lower third of the image with the car and driveway. There's a sort of ordinariness to it that contrasts with the ethereality of the clouds.

Figure 1: Stratocumulus clouds over the William's Village bus stop

To take my image, I walked to the bus top in William's Village in Boulder. I pointed my camera up at about 30º. I was facing north west. This was on November 13, 2024 at 4:56 PM, Mountain Standard Time. The sun was slightly to my left due to my camera being pointed north west. This is why the sky becomes much brighter in the middle left of my image. This was the only image that I took, and I was quite happy with it.

The clouds in the image are stratocumulus. This is supported by the Cloud Appreciation Society's description of a stratocumulus cloud, which is "a low layer, or patch of cloud that has a well-defined, clumpy base" (Cloud Appreciation Society). Also just based on pictures I've seen, I feel like I can recognize a stratocumulus cloud better than any other. They're very common in Boulder. There was no rain on November 13, and the max wind speed was 16 mph. There was no rain the entire week. Due to the existence of stratocumulus clouds, the atmosphere was probably shallow conditionably unstable or absolutely unstable (Thomson Higher Education, 12). These clouds were produced by the "mixing of a moist air layer near the surface" (Thomson Higher Education, 12). The clouds in my image were at about 3200 meters based on **Figure 2**.

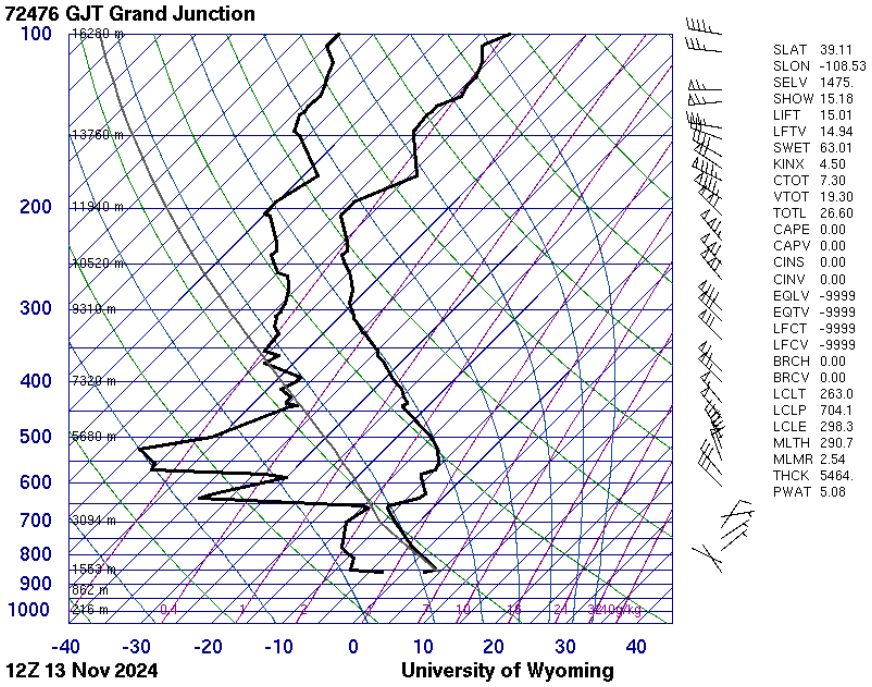

Figure 2: Skew-T for Grand Junction on November, 13, 2024 (UW)

I think that the field of view for my image, **Figure 1** about 5000 feet and that the cloud was about 6400 feet from my camera. I took the photo on my iPhone 14 Pro. My shutter speed was 1/99 of a second, and my F-stop was 2.2. The unedited image is 4032 pixels by 3024 pixels. The edit is the same dimensions. I adjusted the contrast to get the clouds to pop a bit more and changed the shadows to get the lower third to be less dark.

My image reveals the beauty that can be seen on an ordinary day in Boulder, Colorado. Fluid physics are exhibit very well with the large, beautiful stratocumulus cloud on a day with no precipitation. I fulfilled my intent for this assignment, but I'd like to go back to shooting clouds on film. It's more of a fun challenge.

Works Cited

Cloud Appreciation Society, Stratocumulus
https://cloudappreciationsociety.org/cloud-library/stratocumulus/

Thomson Higher Education, 2007, Stability and Cloud Development
https://www.weather.gov/media/zhu/ZHU_Training_Page/clouds/stability_clouds/stability_clouds.pdf

Weather Underground, Loveland, CO Weather History, NORTHERN COLORADO REGIONAL AIRPORT STATION
https://www.wunderground.com/history/weekly/us/co/loveland/KFNL/date/2024-10-10

University of Wyoming College of Engineering
https://weather.uwyo.edu/upperair/sounding.html