

# Clouds 2 Report

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## Context and Purpose

This image was one of several I had taken over the course of a several weeks, since turning in the Clouds 1 image. I Enjoy this image because of the parallel and layered appearance of the clouds. It adds a nice touch of texture and depth that is easy to appreciate. This image was taken just before class at 12:08 PM on November 1st while biking to class. The elevation when taking the image was about 1655 meters (5430 feet) above sea level, and facing Southwest toward the southern flatirons at an angle of about 40 degrees.

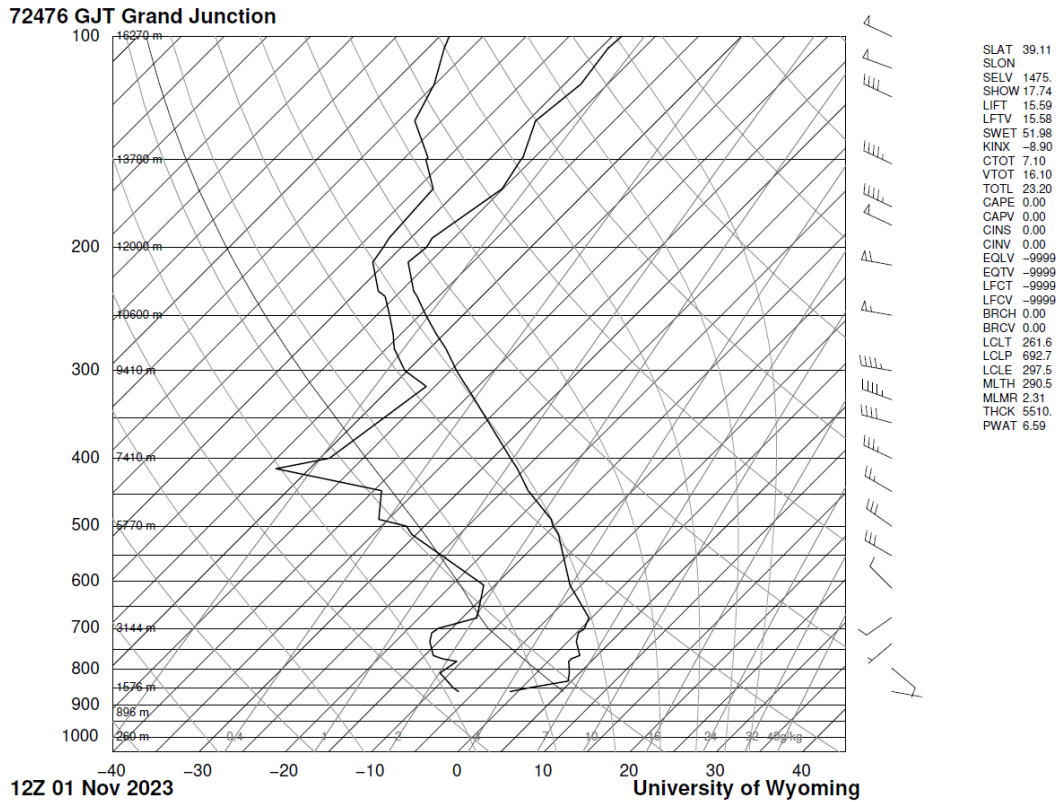


**Figure 1: Edited Image of Clouds.**

## Cloud Information

The image consists of a stratocumulus cloud, which was hovering just to the east of the Boulder Flatirons. According to the National Weather Service, stratocumulus clouds “are hybrids of layered stratus and cellular cumulus, i.e., individual cloud elements, characteristic of cumulo type clouds, clumped together in a continuous distribution, characteristic of strato type clouds. Stratocumulus also can be thought of as a layer of cloud clumps with thick and thin areas. These clouds appear frequently in the atmosphere, either ahead of or behind a frontal system.<sup>[1]</sup>” I have

no experience outside of this class identifying clouds, but that is what my peers and I decided they were characterized as in this edited image. Referring to the data in figure 2, the CAPE (Convective Available Potential Energy) value was 0, indicating stable atmospheric conditions. However, this data was recorded in Grand Junction and not near Boulder so it is not exact. These clouds were at approximately 3650 meters (~12,000 ft). The winds at ground level were not very noticeable, and atmospheric winds were approximately 10 knots.



**Figure 2: Skew-T Plot – Day of photo at Grand Junction, CO**



**Figure 3: Unedited Image of Clouds.**

### **Photographic Technique**

The image settings are described here as follows. The camera used was an iPhone 13 Pro. The Camera settings were an aperture of f/1.5, exposure of 1/60 second, focal length of 5.7mm, and ISO was 50. The subject of the image was approximately 2-4 miles away. The image resolution was 4032 x 3024. The raw image file was processed using Darktable, where brightness, RGB curve, and image size were edited to enhance the features. The final cropped resolution was 2699 x 1300.

### **Reflection**

I am super happy with the results of this image. The texture in it is fascinating to me, and offers a lot of texture and layers. I have noticed since taking this class that I have a new appreciation for clouds and trying to identify the type and how they are formed. I am satisfied with the presentation and how I was able to showcase the clouds in this image!

## References

- [1] Atmospheric soundings. (n.d.). Retrieved December 15, 2023, from <https://weather.uwyo.edu/upperair/sounding.html>
- [2] US Department of Commerce, N. (2020, May 30). Cloud classification. National Weather Service. [https://www.weather.gov/lmk/cloud\\_classification](https://www.weather.gov/lmk/cloud_classification)