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Fall 2021 Cloud 1  
ATLS 4151: Flow Visualization  
25 October 2021

Stratocumulus Cloud

Taken on August 27th at 6:00pm on CU campus between the CASE building and VAC

Unedited



Edited



## I. Introduction

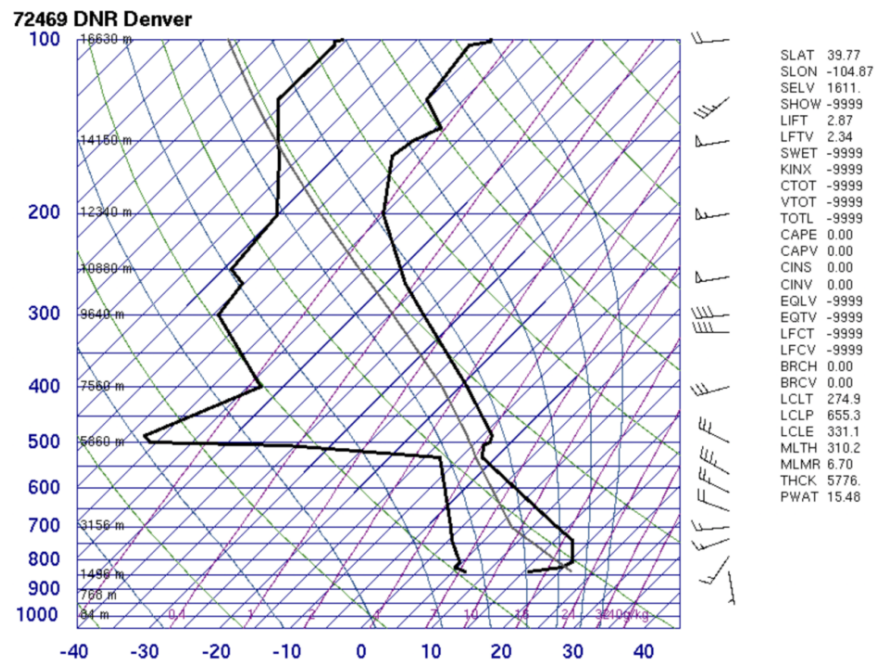
I was walking home from class when I looked up to see these clouds which I thought were beautiful, especially how they're lit up from behind by the setting sun. I love how you can see the rays of sun coming through the clouds, also known as crepuscular rays, and thought it would be perfect for this assignment.

## II. Image Circumstances

This image was taken on CU's campus right between the CASE building and the VAC on August 27th at around 6:00pm. I took this photo facing West towards the Flatiron mountains and my phone was pointed at about an angle of 55 degrees from horizontal.

## III. Cloud Description

The clouds captured in this picture are stratocumulus clouds, most likely in the cumulogenitus category. These kinds of clouds sit at a fairly low level, these clouds specifically were at a level of about 1,500 meters from the ground, as seen from the Skew T diagram below. These are the most common types of clouds and can be identified by its lumpy or patchy texture and their well-defined bases, with some parts often darker than others. Stratocumulus clouds often indicate a slight change in weather and an occurrence of some kind of front coming in. This day was pretty normal but I do remember it was slightly colder than days before. The CAPE value is equal to 0 which means it was stable. Looking at the Skew T diagram, you can see a tropopause. This can be seen by looking at the black line on the right side and how it is fairly straight until 12,340 meters where the temperature hits an inversion (the line starts pointing to the right) and starts to follow a constant temperature line. You can also see a dramatic change in the dew point just below 5,860 meters.



### **III. Photographic Technique**

I used my iPhone 12 Pro's camera to take this photo. It was taken using a wide camera (26 mm), ISO 32, and f1.6. The size of the photo is 4032 x 3024 pixels. I used just a little post processing to play with the colors and make the light rays pop out just a little more.

### **IV. Final Results**

I am really pleased with this picture and love that I was able to just run into a great scene of clouds and use it for this project. Like I said before I love how the light rays from the sun are peeking through the clouds and create a beautiful glow. I also love how the rim of the clouds are bright and lit up against the dark contrast of the middle base of the clouds. I think next time I would like to capture a more rare type of cloud rather than one we always see but I am a fan of how this turned out.

### **References**

“Skew-T Parameters.” Skew-T Parameters and Indices,  
[https://www.weather.gov/source/zhu/ZHU\\_Training\\_Page/convective\\_parameters/skewt/skewtinfo.html](https://www.weather.gov/source/zhu/ZHU_Training_Page/convective_parameters/skewt/skewtinfo.html).

“Stratocumulus Clouds.” Met Office,  
<https://www.metoffice.gov.uk/weather/learn-about/weather/types-of-weather/clouds/low-level-clouds/stratocumulus>.