Clouds 1 Image Report

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I.   Introduction

This image was taken for Flow Visualization class, for the first clouds image assignment. The goal is to take a picture of cool clouds, so we can study and understand them. Also, to take a picture of beautiful cloud formation.

II.   Image Circumstances

This image was taken in Boulder on 17th st, on October 3, 2021. The image took at 2:36 pm on a beautiful day. I used a phone camera to capture this image. The phone was pointed at about 45-50 degrees from horizontal.

III.   Cloud Description

These clouds in figure 1 show stratocumulus clouds because they were forming a layer of puffy clouds [1], and it is in the cumulogenitus category. These clouds are low-level. We can notice that from the Skew T diagram in figure 2, where the point line gets closer around 3500 meters high. From the Skew T diagram, we can see that the atmosphere was stable on that day because the CAPE value is equal to zero. Also, I remember that day was a normal day with a few clouds.

Fig 1. Final image.
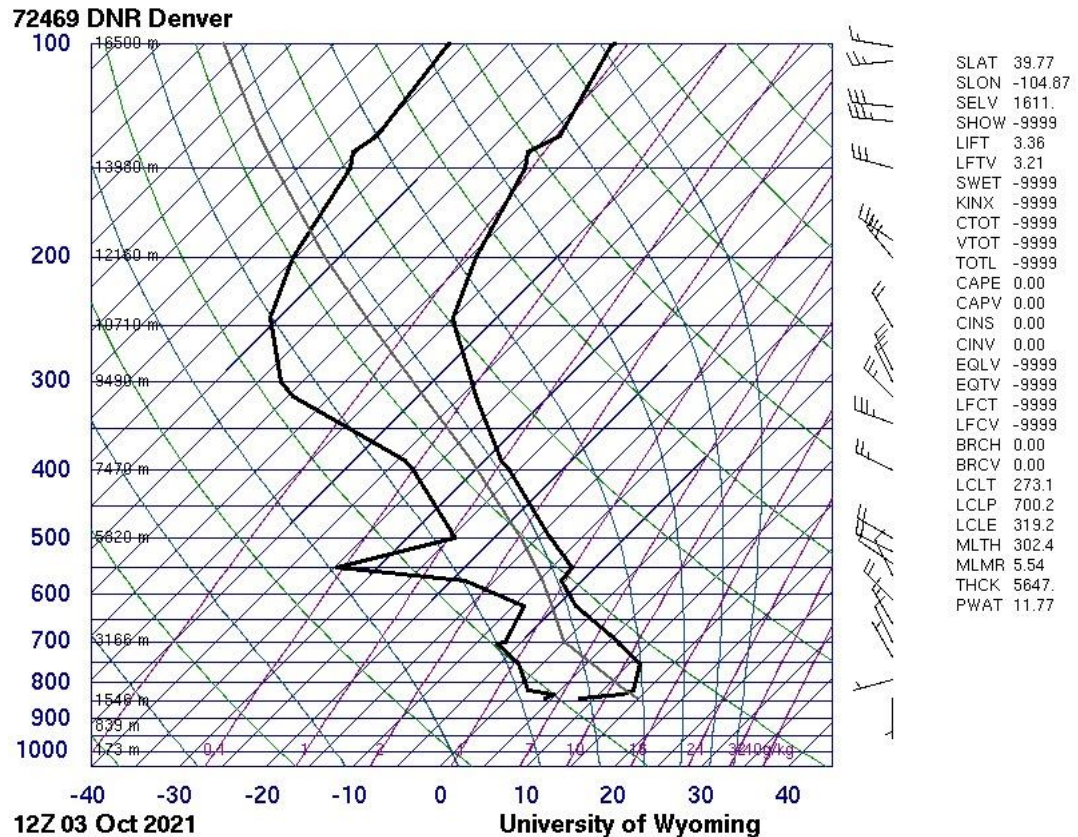
Fig 2. Skew T graph

I took the picture in Boulder. since there is no skew T graph for Boulder,

I used the Skew T graph for Denver. The Skew T graph in figure 2 for October 03, 2021. At 12z
which it is sunrise around 6:00 A.M for that day. Also, as I mentioned before the height of
clouds is about 3500 meters, where the black lines are getting close to each other.

IV.   **Photographic Technique**

To capture this image, I used my iPhone 11 pro camera. The lens ratio was 1x zoom. I used the
default setting to capture this photo. The size of the original picture is about 4032 x 3024
pixels. I used a little bit of iPhone editing to make the image lighter and to edit the colors.

Figure 3. original picture

V.   Final Results

This image shows a beautiful day with few clouds. I like how this image is simple, and I am happy with the final result. I noticed these clouds are stratocumulus, and they are low clouds. For the next time, I will try to write some notes on the weather surrounding. Finally, I would like to learn more about clouds and how they affect the environment.

References

[1] *Learn about stratocumulus clouds: Low, puffy layer*. whatsthiscloud. (n.d.). Retrieved October 26, 2021, from https://whatsthiscloud.com/cloud- types/stratocumulus/.

[2] Website for animated Skew T diagram: 72469 DNR Denver Observations at 12Z 30 Aug 2021 - 00Z 31 Aug 2021 (uwyo.edu)