

Clouds Second

Boulder, Co

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Figure 1: Final result of clouds second

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Introduction

For the second clouds assignment, I went to the open field by the ITLL and took the picture at the sunset. I had the chance to capture an Altocumulus clouds. My intent for this assignment was to capture a colorful sunset and its reflection on the clouds.

Experimental Setup

I was setting at the ITLL before the sunset then, I saw how beautiful it was so I ran to the field to get the picture. I used my phone to get it and I liked how the ground was green, so I used the wide lens to cover the ground as well. The picture was taken in November 10, 2019 at 4:58 PM aiming to the west.

Description of the Clouds

The state of the clouds that night was mostly stable atmosphere according to the CAPE number provided from the diagram below which is 0.

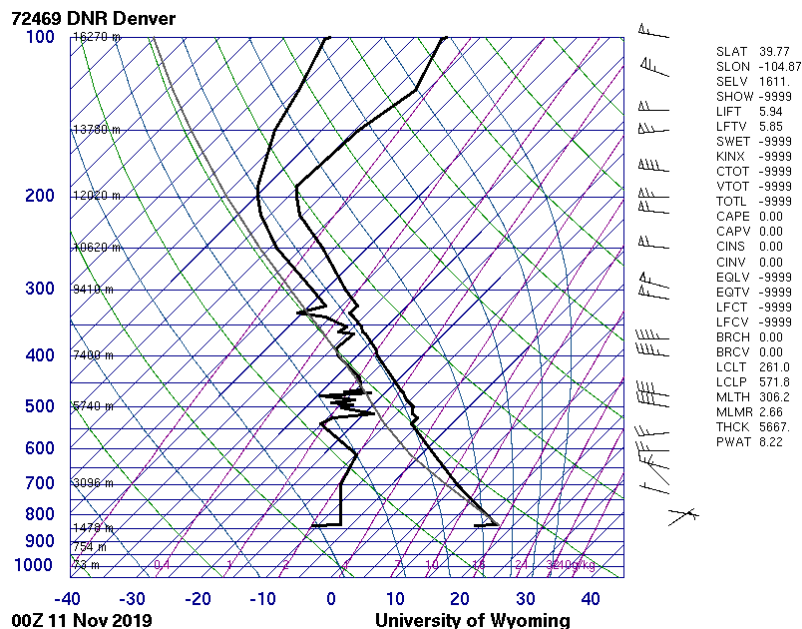


Figure 2: Skew-t diagram from October 11 00Z 2019 of Denver's sounding.

The first layers were formed around 6000-7000 meters of altitude which is possible since the picture was taken in mountainous area. Furthermore, the layers had a temperature between 0° C and 10° C. The pressure where the clouds were formed is in between 550 millibars to 450 millibars. Altocumulus clouds can be commonly found around sunsets. The height of this type of clouds is higher than other types.

Techniques used

- Camera Techniques

I have used my iPhone 11 pro to get this picture. The iPhone 11 pro has three camera lenses. I thought that using the wide-angle lens would be better in capturing clouds. The reason is that the lens would capture more space and clouds. The original dimension of the picture was 3024×4032 pixels. The focal length was 1.54mm. The F number was f/2.4. The shutter speed that the iPhone chose automatically is 1/5319. I have tried to get the actual ISO value, but I could not. However, I did a bit of research and I found out the auto ISO value for the wide-angle can be anything in between 32 until 3072.

- Editing Techniques For this picture, I have put some edits on it using gimp. I cropped the picture and changed the contrast and brightness as shown.

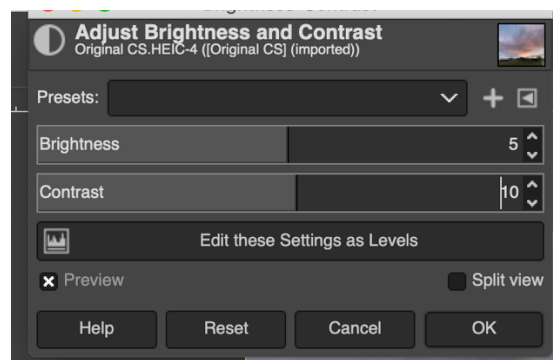




Figure 3: A comparison between the raw picture on the left and the edited version on the right.

Conclusion

In conclusion, I have taken many pictures in different circumstances. I loved how the wide lens can capture a lot of space in the screen. I think that I got lucky to capture such a beautiful sunset. I still loved the view including the buildings and the mountains along with the clouds so I thought I could keep them in the picture. Also, I thought that making the buildings and mountains black looking like a shadow can make the picture look good.

Reference

Skew-t diagram

<http://weather.uwyo.edu/upperair/sounding.html>

Altostratus Clouds

<https://www.metoffice.gov.uk/weather/learn-about/weather/types-of-weather/clouds/mid-level-clouds/altostratus>

iPhone 11 pro camera review

<https://www.androidpit.com/apple-iphone-11-pro-max-camera-review>