Cloud Second
MCEN 5151
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April 9th, 2018, 5:30PM
Location: Idea Forge

Introduction

This is taking outside of Coors Event Center in the morning about 10:00 am. The cloud is pretty beautiful at that time and sky is clear. It was a raining morning but stopped at about 9 am.

Figure 1 Cloud

Location

The picture is taking outside the Coors Event Center. I was facing east, the same direction toward William Village, as you can the William Village buildings in the bottom of the image. The angle is about 20 degrees above the horizontal, and the elevation of this picture is about the same as boulder's elevation, 5430 feet over sea level. I took this image in the morning about 10:20 am, and at April 9th. I can tell it was a shiny when I took this picture, but it was raining during that day at most of time.

Cloud

The cloud should be cumulus, because it looks low at that moment. The sky is clear at that moment, but it was a raining day, so it should be an unstable cloud, also the wind speed is not too fast. As shown in figure 2, the cloud types are specified in this figure.

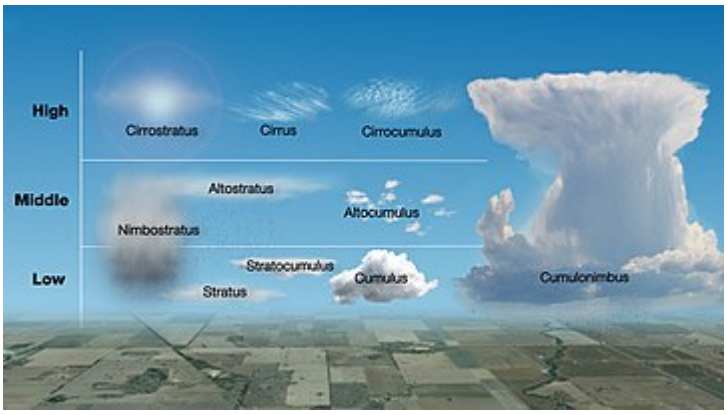

Figure 2 List of Cloud Types [1]

The Skew-T diagram of April 9, 2018 in Denver area is shown in figure 3. The Denver's attitude is about 700o ft. above sea level, and from Skew-T plot we can see it shows an unstable on the low attitude. Not much windy and a stable weather in high attitude over 9000 meters.

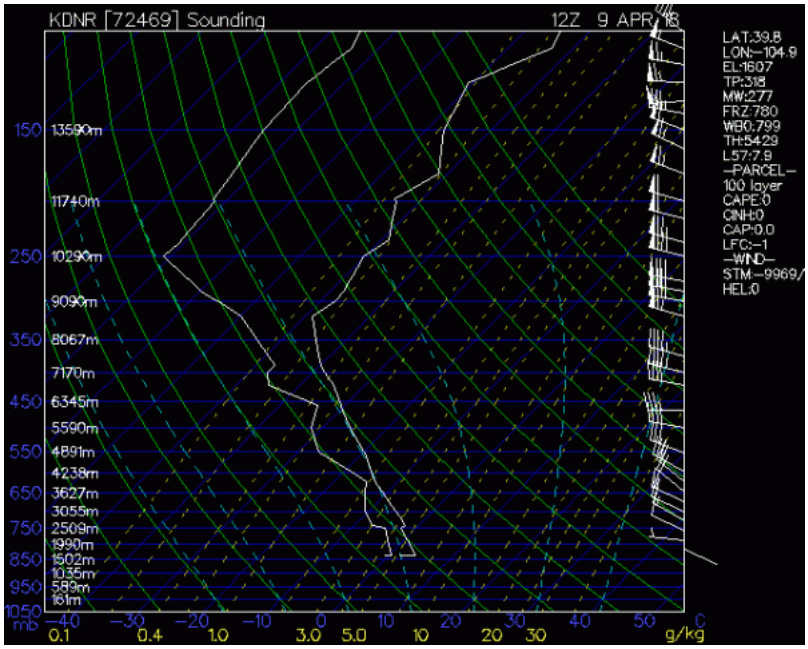

Figure 3 Skew T Diagram [2]

These clouds are looks like sheep on the sky, which is also called Cumulus Flockus [3]. It is a typical unstable cloud which is really common in our daily life.

Photographic

The original image is shown in figure 4, which took by Sony A7RIII, 35mm fixed lens. F-stop is set at f/11, 1/200 second exposure time, ISO is 100 for this image.

Figure 4 Original Image

The estimate size of field of view would be 4000 feet x 2000 feet. Distance from object to lens would be 2000 feet. The Photoshop is used for this image, I increase the saturation of the image and change the light of the picture, also I increase the shadow of this image to make more details of cloud be visible as well as buildings are darker for this image. Then I chopped off the trees and light on both side of this image, to make it more focus on clouds. So, after Photoshop, it become darker on clouds and buildings, but more details of clouds are shown up.

Conclusion

My favorite part of this cloud is the shape of this cloud, and how clear the sky is. Buildings are given a good scale of this image, but if I could make them darker would be better, because it is still a little distraction from clouds, this is involved more expert skills on Photoshop. The improvement of this image would be put a Polarizer on the lens, to get rid of the sunlight refractions on lens.

Reference

[1] List of cloud types – Wikipedia URL: https://en.wikipedia.org/wiki/List_of_cloud_types, 2018

[2] Unisys Weather - Unisys Weather Information Systems, 2018

[3] Meteorology of Clouds - L.L. Downing, published by AutherHouse, 2013