Dawood Ahmad // Cloud Second

November 27, 2019

MCEN 4151-001

The aim of this assignment was to find an interesting cloud formation and describe what it is. This assignment is one of my favorite assignments because it makes me appreciate the different kinds of cloud formations. For this assignment I was lucky enough to come across a cloud formation that is considered rare and new. Also, I was able capture this cloud during a sunset which is why the cloud shows the beautiful sunset colors.

The cloud was captured on November 10, 5:02PM. The location was the Fleming Law building in Boulder, CO. Looking at the SKEW-T diagram, it is seen that the winds that day were fairly strong and were coming from the west. Also, we can see that the CAPE value was zero, indicating that the atmosphere was stable. The temperature when the cloud was taken was approximately 55 degrees Fahrenheit. The elevation of this cloud was approximately below 2,000 ft.

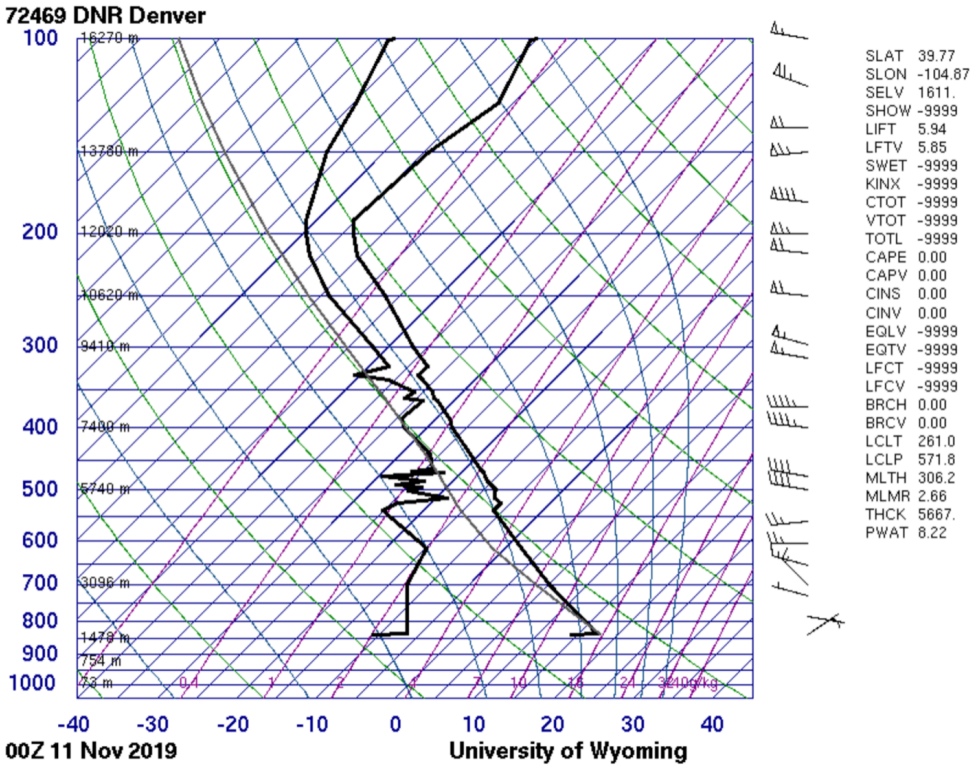

Figure 1. the SKEW-T diagram during the time the cloud was captured

The cloud that I captured is an Asperitas cloud. Asperitas clouds usually form at altitudes below 2,000 ft. This is a very interesting cloud because it has recently been classified. Thanks to a member in the Cloud Appreciation Society, a proposal for its classification has been made in 2009. In 2017 it was officially added to the International Cloud Atlas [1] .

The cloud image was taken using a Samsung Galaxy S9 smart phone. The aperture was F1.5, the focal length was 4.30mm, iso was 160 and exposure time was1/60s. The image that was submitted was unedited. I felt that the image was perfect as is, especially the colors.

In the end, I like this image because of its colors. I like how I managed to capture this image at a time of day that gave it this purple and orange hue. Also, I think that the inclusion of the tree not only adds to the depth of the image, but also gives it a dark horror scene look. At first I thought I was looking at a Mammatus cloud as there are slight cellular formations. However, to my surprise, it turns out that I stumbled upon a newly classified cloud, Asperitas. I wish I could have captured more of this cloud instead of a small segment but the buildings were in the way.

Citations

[1] Asperitas (cloud). (2019, April 11). Retrieved from https://en.wikipedia.org/wiki/Asperitas_(cloud).