Clouds

Kelly Sikora Image/ Video 4 Cloud 2 MCEN 4151-001 12/09/2021



I. Image Context

This Thanksgiving break I went home to Virginia. Virginia autumns are known for cloudy days and nights, coupled with towering east coast trees. In front of my home, there is a break in the trees that creates a window to the portion of the sky where the moon sits for the first part of the night. My second night home, this pocket of sky was filled with cotton ball clouds with the moon shining like a flashlight through them. Thanks to the handy night mode on my iPhone, I was able to capture my image.

II. Fluid Dynamics

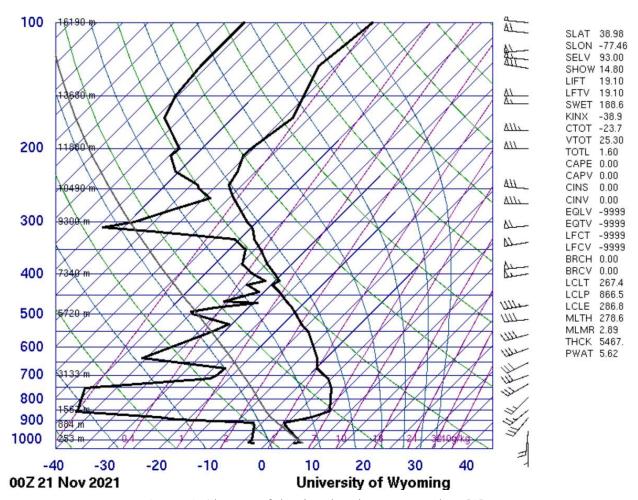


Figure 1. Skew T of the day the picture was taken [1].

As seen in the Skew-T diagram (Figure 1), the atmosphere was stable at the time the image was taken. This is apparent because of the CAPE value of 0.00. The wind did not switch directions at all, contributing to the stability. This is shown in the right hand column of symbols and their unanimous direction. I estimate the clouds to be resting around 7000 meters above sea

level, which is where the image was taken. I derived this from the point of elevation where the two lines are closest together. The picture was taken at 8pm on November 20 2021. The clouds in the sky were in the cumulus family.

III. Visualization Technique

I took this image with te intention of balancing getting as many clouds in the frame as possible while also cutting out unnecessary objects. Therefore, I cut out roof tops and telephone poles, but left in the tree tops so I could capture a wider sky. The only light is the reflection of the sun on the moon.

IV. Photographic Technique

I used the field of view that best fit my visualization technique and took the image on my iPhone 12 Plus in the 1 to 1 lens setting. I then edited the image to increase the contrast between the light and dark portions of the clouds. It also made the moon appear sharper through the clouds.

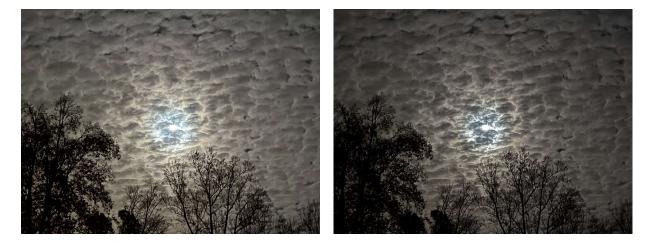


Figure 2. Left: Raw image. Right: Final edited image.

V. Image Overview

I am satisfied with how this image turned out. I only wish I had had my Nikon with me, so I could have taken a sharper image. However, with the camera I was working with, I was able to capture the dramatic effect of the moon casting through the cloud pattern that covered the sky.

References

[1] Atmospheric soundings. (n.d.). Retrieved October 25, 2021, from http://weather.uwyo.edu/upperair/sounding.html.