

Cloud Second Assignment

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MCEN 4151 - 001

Stratoculumus Cloud

Photo Taken: 11/25/23, 12:15, Point of Rocks, WY

For my second cloud assignment, I took a mesmerizing photo featuring what seems to be an infinite row of stratocumulus clouds featuring a small pocket in the rows showing the moon off in the distance. The primary focus of my final image showcases the intricate beauty of nature's captivating shapes and patterns found in the sky. In a way, the infinite rows of grey, tightly-clumped clouds draw the audience away from reality seeking the ending point of the rows. The rows invite the audience to appreciate the breathtaking spectacle of stratocumulus clouds. The report will discuss the journey from the initial capture of the photo to the final image emphasizing the audience to immerse themselves in the profound beauty of the sky.

I captured the final image of the stratocumulus cloud photograph on my way back from a family trip driving down I-80 in Point of Rocks, Wyoming. With my camera facing south, the image was taken in the early afternoon of November 25th, 2023 at precisely 12:15 local time. The Point of Rock's elevation of 6,200 feet above sea level with the formation hovering over 2 miles off the road which captured the infinite rows stretching towards Colorado.

The cloud formation of stratocumulus clouds are exhibited under typically fair and stable weather conditions. The temperature that day was about 46°F with minimal wind. I came to the conclusion that my clouds are stratocumulus clouds because of their low altitude, layered appearance, light gray color, wavy texture, and the absence of significant precipitation. The focal point of my final image showcased a pocket within the formation on the right hand side, revealing the moon in the distance. This unexpected yet serendipitous bonus feature added a unique touch to the composition. Additionally, winds in the vicinity were generally calm, adding to the tranquil atmosphere. The stability of the atmosphere was evident, with the closest skew-T plot indicating conditions were perfect for the formation of stratocumulus clouds at moderate altitudes. The physics underlying this cloud's formation are linked to the interplay of atmospheric

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moisture, temperature, and wind patterns that led to the captivating visual phenomenon captured in the image.

To capture my final cloud image, a simple photographic technique was considered to highlight the unique cloud formation. As my sister was driving, I stuck my camera outside and snapped the photo while the car I was in was going 85 mph heading Southeast back towards Colorado. The estimated size of the field of view was relatively vertically tall, showing the clouds end point off in the distance. The distance from the cloud to the camera lens was determined to be at a moderate range, allowing me to capture the cloud's distinct shape while maintaining clarity. I used a iPhone 13 mini camera for this shot which features a dual 12MP camera system with Main and Ultra Wide cameras. Both the initial and final images boasted a resolution of 3024 x 4032 pixels. Employing an aperture of f1.6, a rapid shutter speed of 1/17241 seconds, and a ISO setting of 40, I skillfully captured the interplay of sunlight with the cloud crevices, boosting their highlights and providing rich contrast in the final composition. Extensive image processing was implemented to show off the image's most appealing attributes. Following the initial capture, the original image file underwent editing in Photoshop to enhance the contrast, brightness, and sharpness. In addition, adjustments to the color profile were made to manipulate light, highlighting the moon within the pocket. Both the unaltered and modified versions of the photos are presented below for comparison.



Figure 1: Unedited original photo of the stratocumulus cloud



Figure 2: Edited and final photo of the stratocumulus cloud

In conclusion, the image of mesmerizing stratocumulus clouds gave the audience and I another image to appreciate the beauty that are streaked across our skies. I find the intricate patterns within my cloud formation captivating, serving as a testament to the complex fluid dynamics. The image effectively communicates the aesthetic of this natural phenomenon. While the current photograph admirably fulfills the intention of showcasing cloud's beauty, there remains room for enhancement through experimentation with varied angles and perspectives to present a distinctive portrayal of these cloud formations. Looking ahead, I aspire to consider the dynamic interplay of cloud formations with our atmosphere, presenting exciting opportunities for me to capture and convey through my lens. This course has taught me an appreciation for the often overlooked details in nature, highlighting the significance of small elements that are commonly taken for granted.

References:

- 1.) *Point of rocks, Wyoming*. Point of Rocks. (n.d.).

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- 2.) "Stratocumulus Clouds." Accessed October 29, 2023.

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