Sunrise on Stratocumulus

MCEN 5151

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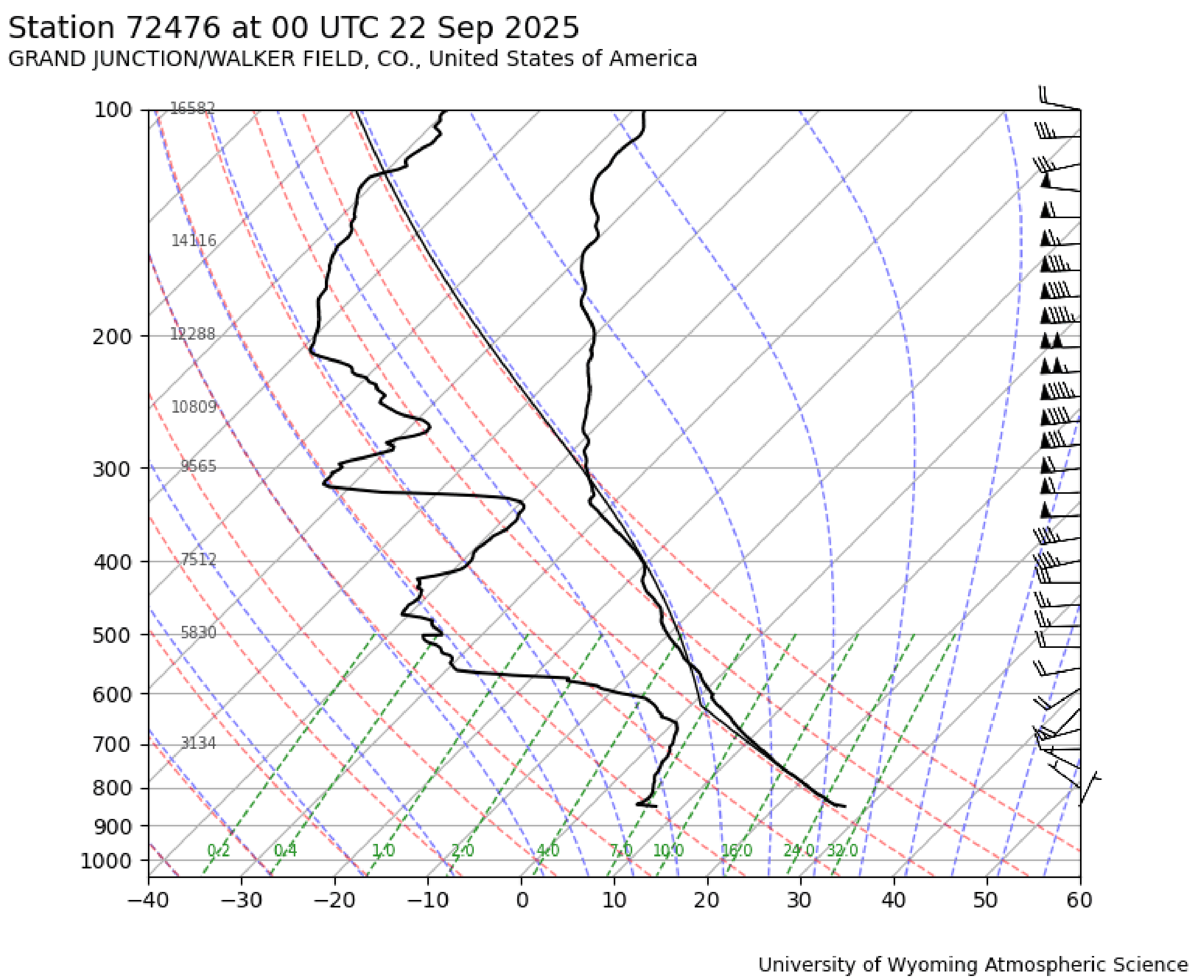
For the Clouds First assignment, my goal was to simply capture the most artistically compelling clouds that I could. I took some other quite compelling cloud pictures at the beginning of the semester, but the best was a sunrise picture of stratocumulus clouds.

The picture that I used for Clouds First was taken on September 22nd 2025 in Scott Carpenter park, facing ~110^0 T at 06:41 am. Sunrise was at 06:49 am, so the sunlight was only just able to light up the bottom side of the clouds. The picture was taken in portrait mode, so it was taken nearly completely level to horizontal.

I assess that the clouds in my image are stratocumulus based on their general shape and their relatively low-intermediate altitude. The weather was not incredibly windy (<5mph), but the ground was covered in a significant amount of dew. The atmosphere was unstable from ground level to approximately 4000 meters as can be seen on the skew-T diagram from the University of Wyoming Atmospheric Science department for 0000Z 22 September 2025 (this was the closest time available).



From about 4000 meters to about 9000 meters the clouds were stable but unstable again at higher altitudes. The expected cloud high was about 4000 meters with a possibility of more at 9000 meters.

The camera used was simply the camera on a Galaxy S24. It had an ISO of 160, focal length of 23mm, F1.8, and shutter speed of 1/120 s. For post processing, Adobe Lightroom was used. The shadows were brightened to allow the foreground to be seen better, and the vibrance was increased in order to get somewhat deeper reds in the cloud bottoms.

The image reveals the formation of stratocumulus clouds. I would like to further develop my understanding of cloud types in order to more confidently state that this is in fact a stratocumulus cloud.