

John Whiteman
ATLS 4151-001
Clouds First

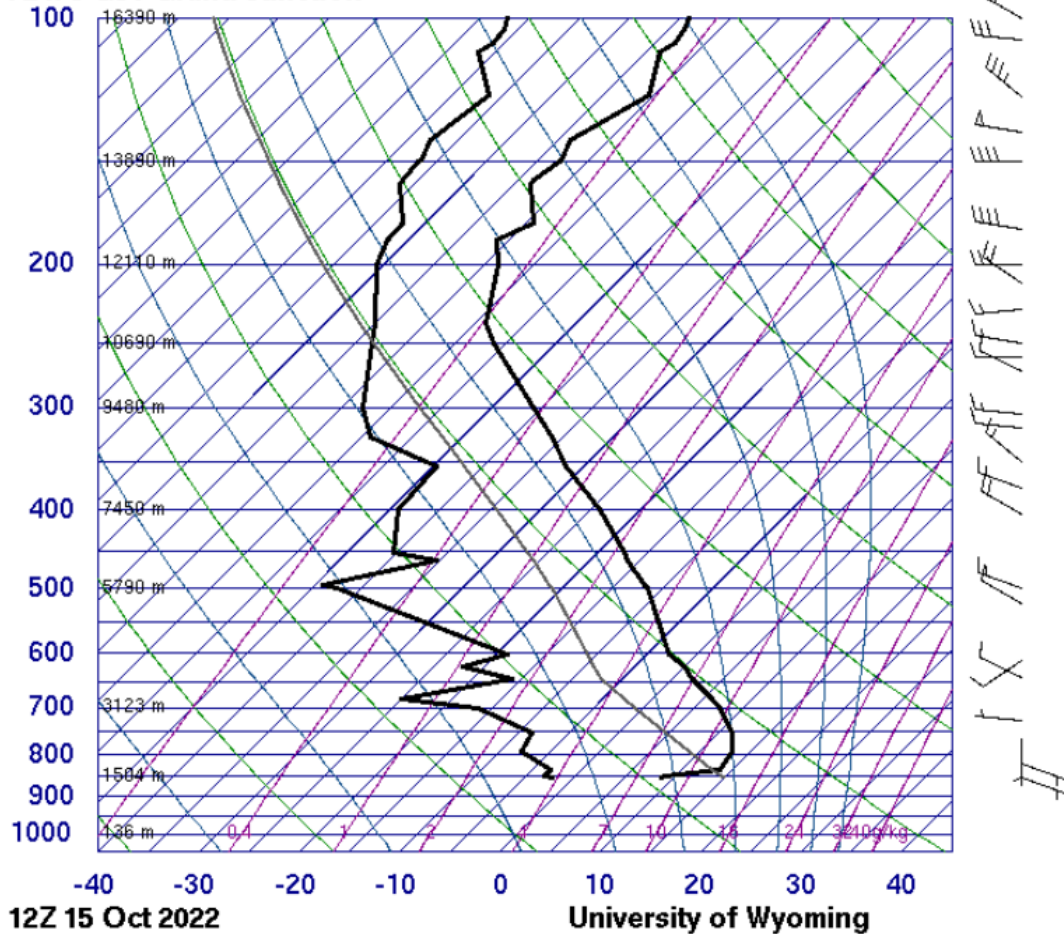
Image Taken: Oct 15, 2022, 11:03 AM

This image was chosen for my second cloud visualization because of the large interesting patterns and general uniqueness of the cloud layer I had observed. Using appropriate photo techniques and knowledge of the atmospheric conditions we can use this image to gain some understanding of the flow physics present within these clouds. The original and edited photos can be found at the end of this document.

The image was taken near the intersection of Baseline and Broadway in Boulder Colorado at 11:03 AM on Oct 15, 2022. The photo was taken at approximately a 65-degree angle facing north, the weather on this day was primarily blue skies with very little wind.

Using the appropriate skew-T diagram sourced from the University of Wyoming's [Atmospheric Sounding](#) page, we can observe the atmospheric conditions (from Grand Junction) from October 15th to gain a better understanding of these wispy clouds. We can visually identify this cloud layer to be composed of cirrus cloud formation, as nothing else develops in a way to make them so light and "wispy" as we can see in the photo. By observing the skew-T diagram we can notice that the clouds likely formed around 4500 meters in elevation (where the temperature and dewpoint line are closest to intersecting). Such an altitude is supportive of our cloud ID as well, as cirrus clouds tend to form around 4500 - 9000 meters. The CAPE value of 0.00 is indicative of a completely stable atmosphere which is supported by the low levels of movement within the clouds and the lack of big puffy clouds or harsh winds.

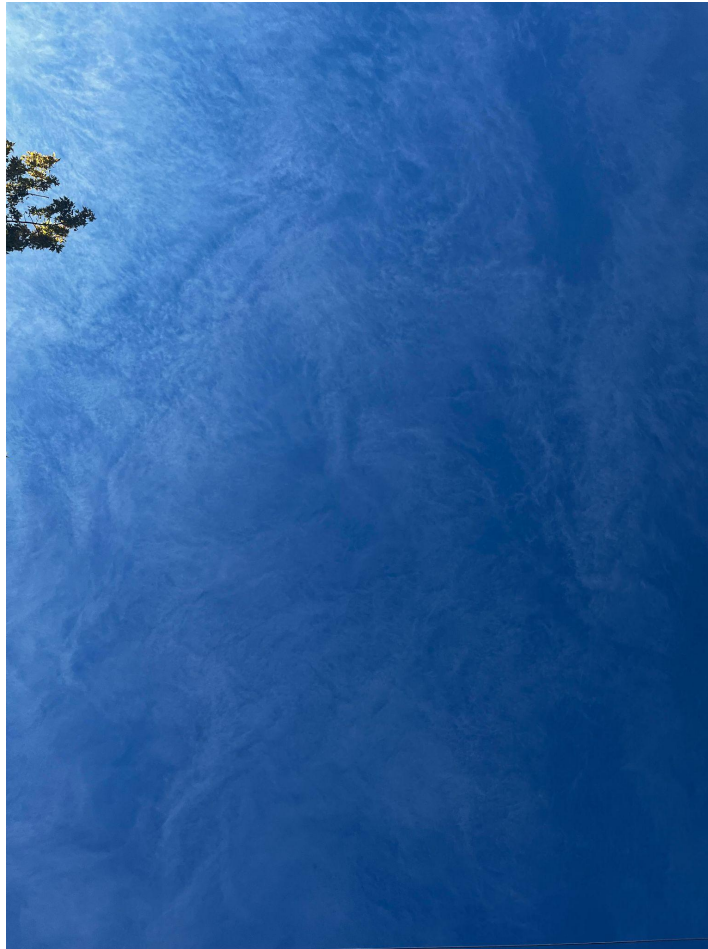
72476 GJT Grand Junction



I captured this image using the wide lens of an iPhone 13 Pro Max. The distance to the clouds was approximately 4500 meters, though the very large field of view distorts this estimate between the far reaches of the image. The lens of the iPhone's wide lens has a focal length of 26 mm. The image was taken with a shutter speed of 1/2571 seconds, an f-stop of 1.5, and an ISO setting of 50. The original photo was taken at a resolution of 3024x4032 px and the edited version retained the same dimensions but was rotated 90 degrees counterclockwise, resulting in a 4032x3024 px image. In terms of edits made, only minor adjustments were applied to the brightness and resolution of the image to further accentuate the details within the bright and dark spots present in the cloud formations.

I love the unique appearance of these clouds and believe this image could be utilized extremely well in mixes or backgrounds for editing. I feel as if the framing does leave something to be desired and a little bit more (or even less, regarding the tree) "action" would add to the image greatly.

Original:



Edited:

