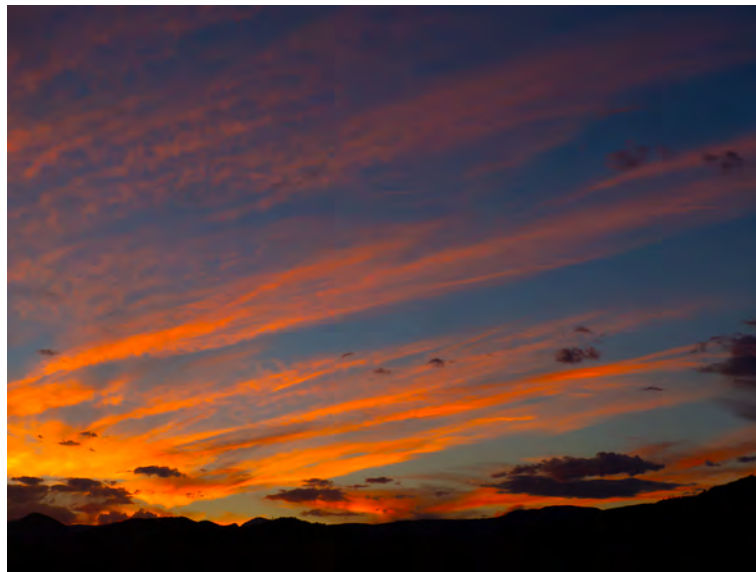


Cloud First: Circus at Sunset

Taken September 10th at 6:23 pm
8th floor balcony of the Engineering Center at CU

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1 Introduction

I took this image for the first cloud assignment. I attempted many types of cloud images in order to find one that I really liked. I wanted to see an interesting pattern, and I really wanted a lot of good color. This image gives a great representation of a patterned cloud image that has a unique coloring and set up.

2 Circumstances

This image was taken relatively late in the evening right as the last of the sun was dipping well below the horizon. I took this image from very high up on the eighth floor of CU's Engineering Center so that I could shoot the sky at a nearly horizontal viewpoint. There was a slight angle upward but only by probably 10 degrees. This captured a lot of the sky.

3 Type of Clouds

The big clouds that appear in the majority of this image are cirrus radiatus. Cirrus clouds are typically found in relatively stable atmospheres at very high altitudes. They appear wispy strands that take over large portions of the sky. Cirrus clouds are created at high altitudes because water vapor freezes into ice crystals in the extremely cold upper atmosphere as air moves upward and cools.^[1] This is what makes them so thin and wispy in appearance.

Cirrus clouds can have little forecast meaning, or also can indicate deteriorating weather in the future. In this case, it rained .03 inches the following day, but in general it continued to be relatively hot and sunny during this time. Cirrus Radiatus is a sub classification of cirrus clouds. It consists of clouds that look like parallel lines in the sky. In this image you can see that the clouds appear in a diagonal up the sky, all in parallel with each other.

Looking at the skew T diagram, you can see the CAPE value is a medium low one (192.6). The atmosphere could be considered unstable as a whole, but not severely unstable. It also looks like the cloud was formed at around 7700 meters based on how close the dew point line is to the T line in this plot. This is a rather typical value for a cirrus cloud, and is fitting for what I expected.

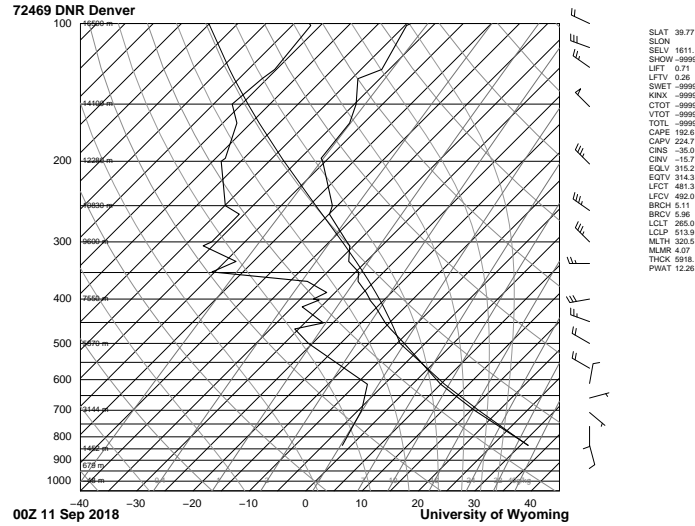


Figure 1: Skew T diagram for time image was taken

4 Photography Techniques

This image was taken from very far away, about 3 miles to the mountains. The camera was also at full zoom while taking the image (focal length of 42mm). Because of this and the resulting image, I would estimate that the field of view is nearly two miles in width. The camera I used to take this image is Olympus OMD mirror-less camera. It has a 16 megapixel resolution and it was cropped down to around 12 megapixels. To take a photo in this light, the shutter speed was set a 1/200th of a second, the ISO was at 200 and the aperture was left at f/6.3. This created a well exposed scene without too much light and nearly no shaking motion blur. The image was imported to Photoshop with full saturation and then slightly cropped. You can see the unedited image below.

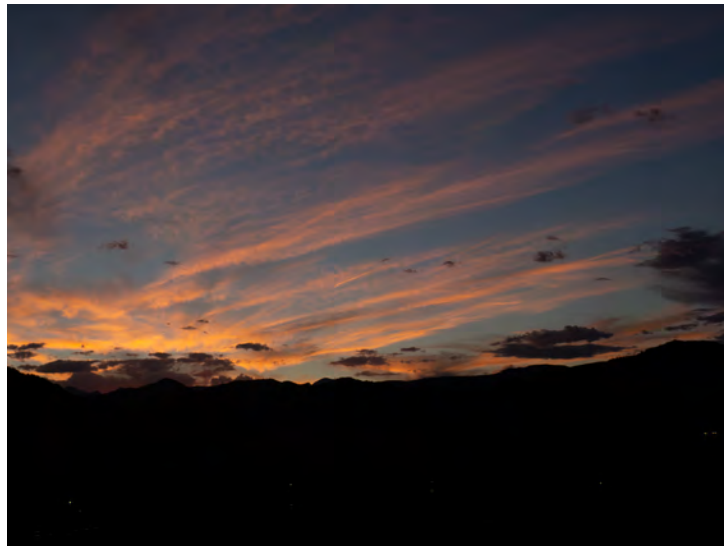


Figure 2: Raw image

5 Comments

I really think this image reveals how thin cirrus clouds are. It does a good job of showing the thin wispy strands as well as really showing the magnitude of these clouds. I think it also really does a good job of showing the color of a beautiful sunset. I would love to get this image from different angles to see the clouds in different respects. I think this could really make them pop even more.

References

[1] Ludlum, David McWilliams (2000). *National Audubon Society Field Guide to Weather*. Alfred A. Knopf. ISBN 0-679-40851-7.