

Austin Ruppert  
Clouds Assignment #2

This image was captured for the second cloud image assignment. This was an ongoing assignment and was one of many cloud images taken over the several week assignment span.

The image was taken at 8:16 pm on 4-12-09 in the area outside of Boulder, Colorado near Eldorado Springs at the intersection of Colorado Highway 93 and 170. The image location is marked on the map below

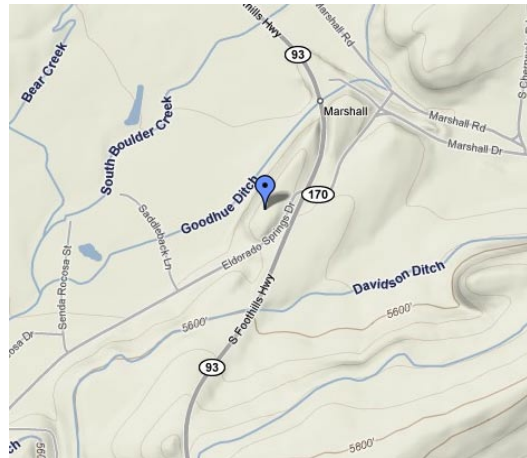


Figure 1: Image Capture Location

The image was taken facing west toward the flatirons during an early spring storm at sunset. The image consists of cumulus and cumulonimbus clouds. The cumulonimbus clouds are an indication rain. In fact the Latin root 'nimbus' means rain. The clouds were low forming and flowed over the flatirons. In figure 2 is a skew-t plot provided from the day of the image around 6pm from the Denver location.

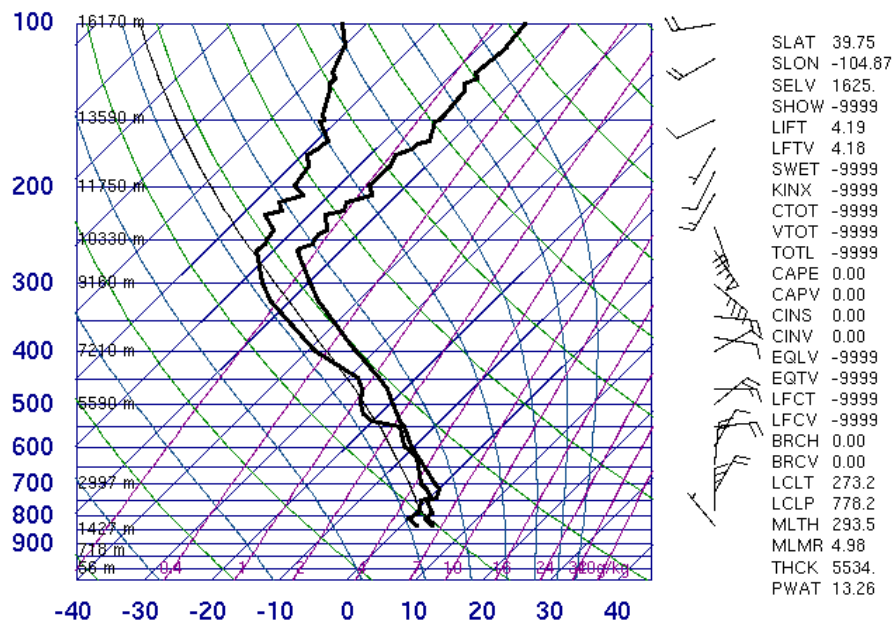


Figure 2: University of Wyoming Skew-T plot for 4-12-09

The atmosphere appears somewhat stable based on the CAPE value of 0 but obvious cloud and precipitation formation was quite possible. The participation and clouds were likely forming at the 2500m and 4000m altitudes.

The image capture information is provided below.

FocalLength: 79/10  
MaxApertureValue: 48/16  
FNumber: 28/10  
ExposureTime: 20/10  
ExposureBiasValue: 0/10  
ExifVersion: 0220  
ExposureProgram: 0  
ProgramMode: 0  
WhiteBalance: 0  
DateTimeOriginal: 2009-04-13T02:16:50Z  
MeteringMode: 5  
LightSource: 0  
Flash  
ISOSpeedRatings (seq container)  
ISO Speed: 100  
Contrast: 0  
Sharpness: 0  
UserComment (alt container)  
FlashpixVersion: 0100  
ColorSpace: 1  
ComponentsConfiguration (seq container)  
CompressedBitsPerPixel: 8/1  
PixelXDimension: 6021  
PixelYDimension: 1506  
DateTimeDigitized: 2009-04-12T20:16:50-06:00

The camera was rested on a fence post to stabilize it for the 2 second exposure time. The light from the city lights provided a nice red tint to the low forming clouds which balances nicely with the deep blue from the flatiron landscape. The decision to edit some of the lights out was made to frame the image more naturally and center the eye to the line of lights on the horizon. The color saturation was increased to try to mimic the actual scene witnesses and compensate for the lack of camera equipment for this low light distance shot.

The image is a small panorama stitched together from three separate pictures.

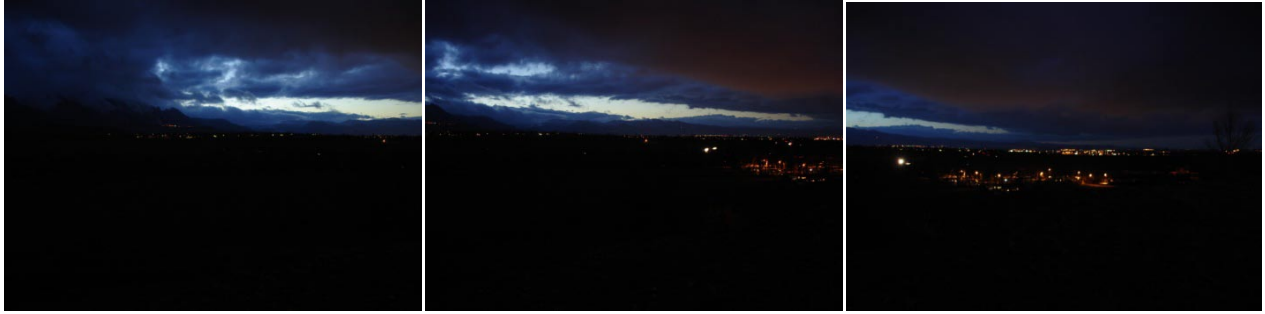


Figure 3: Original Images



Figure 4: Stitched Panorama



Figure 5 : Final Image

I like the effect the image provides when viewed at full resolution. The clouds and colors that can be viewed of the flatiron landscape I find very striking. As with most images the picture hardly does the scene justice as this was an absolutely striking landscape. I wish I had some better equipment and a better lens setup so more of the details could have been captured and more images could have been stitched together.