Clouds Report

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Flow Vis

My first cloud assignment was rather a spontaneous experiment. I was hoping to capture a cool sunset image or even a time-lapse of some low hanging clouds, but what I came up with was in my opinion just as good. Given the image that I captured, I hoped to portray the mystery behind the thunderstorm and its relation with the surroundings.

On September 3rd, I began a hike up the Calypso Cascades near Longs Peak with friends. Honestly, I was more focused on trying to capture a cool Get Wet image and had no intentions of photographing clouds on the hike. Without knowing it, I would fall into an awesome opportunity to capture a cumulonimbus cloud just miles from Longs Peak. At the top of the Calypso Cascades hike, I decided to try and hike up the waterfall to capture an image for my Get Wet report. In figure 1, a small red circle indicates my target destination.

Figure 1

After falling into the river once, I finally reached my final destination and though the waterfall was incredible, a new phenomenon caught my eye. A cumulonimbus cloud was rolling in and with it an opportunity to try and capture the mystery and power behind the approaching thunderstorm. So, I began to photograph the clouds in the middle of the waterfall. Figure 2 shows my surroundings moments before I took my cloud image.

Figure 2

Figure 3

On September 3 at approximately 1:45 PM the image on the cover page was taken. After studying figure 3, I would take an educated guess that my image was taken facing North West at an elevation of 9,336'. I angled the camera towards the sky at a 30 degree angle to just capture the top edges of the trees and the cloud.

The clouds captured in the image are a cumulonimbus and cumulus in the far distance. The image was taken in an unstable atmosphere and the clouds are around 16,000'. The rest of the sky had a very similar look to the final image. The day before this image was taken there were some clouds in the afternoon but nothing that would indicate for rain. The night before this image was taken the mid-day clouds had receded and there wasn't a cloud in the sky. Our camping group was aware that a storm was approaching, and we had to change the original plans of hiking Longs Peak to hiking the shorter calypso cascades. Within a few minutes of this picture, it began to rain. The rain was constant for about 45 minutes as we hiked down. Soon after that though, it was a sunny and beautiful day once again.

Figure 4

The elevation of around 16,000' is around 3 miles, and is exactly where you'd expect to see cumulonimbus clouds in the atmosphere. There wasn't much wind when this image was taken, if any there was a small wind coming from Longs Peak in the image (in a south east direction). Figure 5 confirms this.

1:36 PM	**82.4** °F	**41.0** °F	23%	**29.97** in	**10.0** mi	North	**4.6** mph	-	N/A		Mostly Cloudy
1:56 PM	**80.6** °F	**41.0** °F	24%	**29.97** in	**10.0** mi	ESE	**3.5** mph	-	N/A	Thunderstorm	Overcast
2:16 PM	**69.8** °F	**46.4** °F	43%	**29.98** in	**4.0** mi	West	**21.9** mph	**42.6** mph	N/A	Rain , Thunderstorm	Heavy Thunderstorms and Rain

Figure 5

The skew T at 6:00 o'clock is shown in figure 4. From it, we can see it was an unstable atmosphere and there were plenty of clouds in the sky because the two lines closely follow one another.

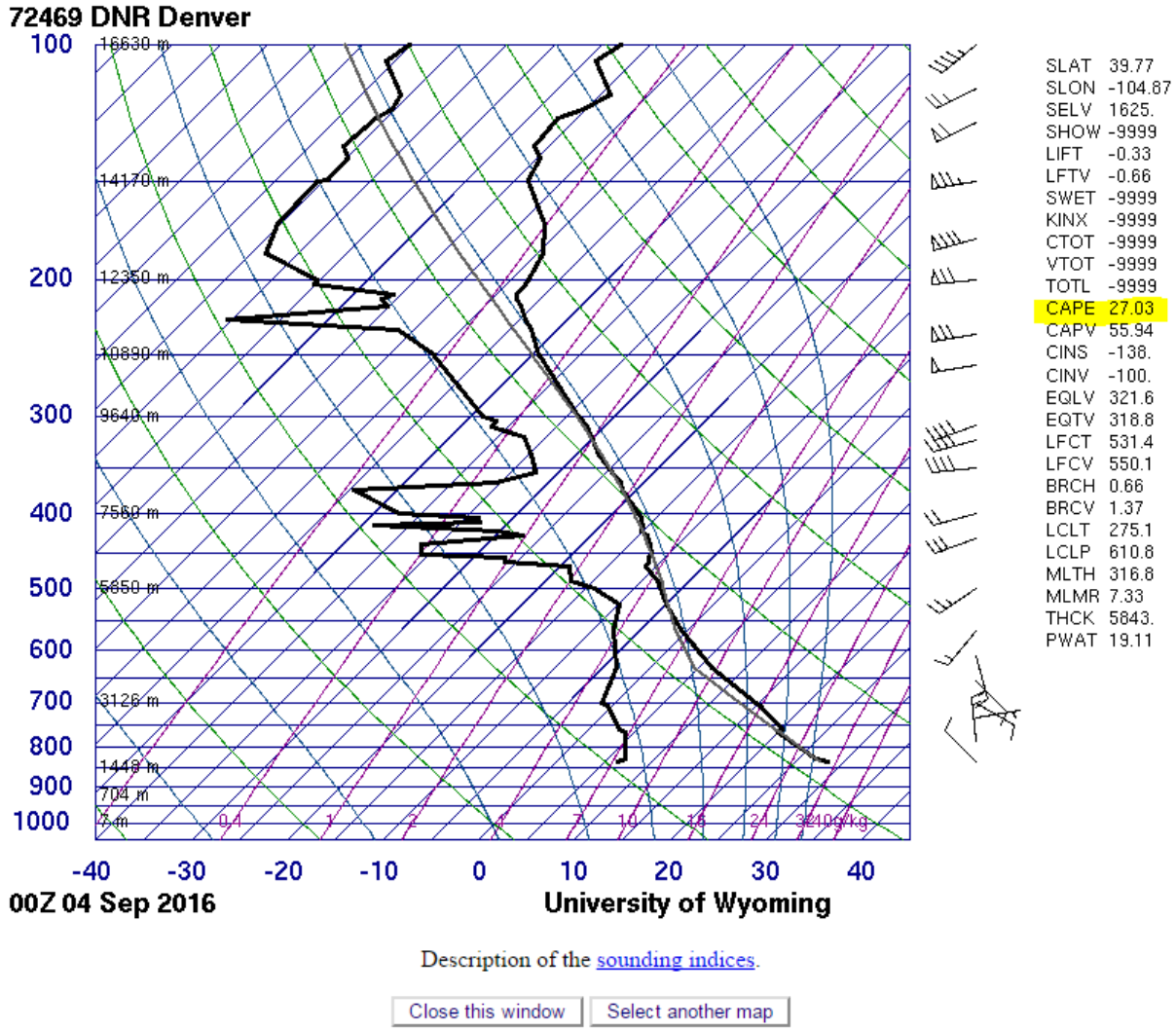


Figure 6

Photographic Technique & Post Processing

The field size of view is a linear field of view of about 2x4 miles. The clouds are around one mile from my elevation and about 1 mile longitudinally from my location. This results in the center of the clouds being about 1.5 miles from my camera. All of the camera specs, type of camera, and exposure specs can be found in figures 7 & 8.

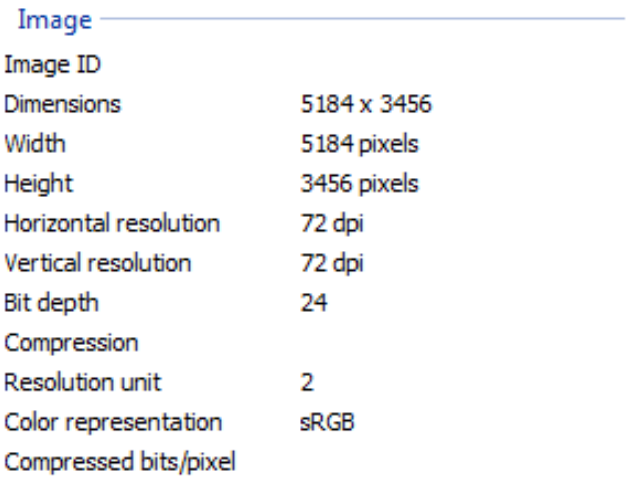
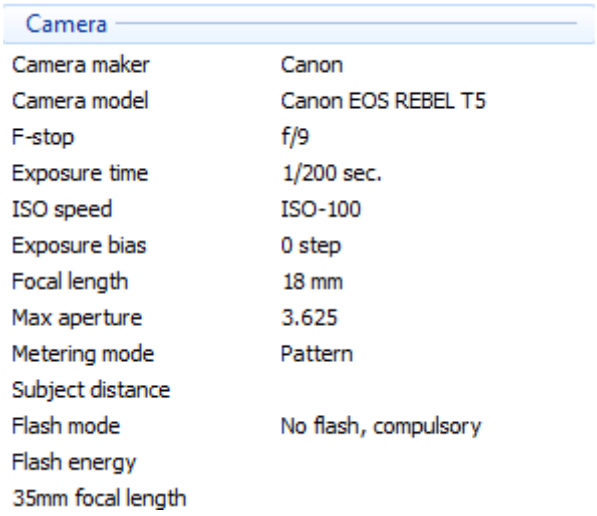


Image	
Image ID	
Dimensions	5184 x 3456
Width	5184 pixels
Height	3456 pixels
Horizontal resolution	72 dpi
Vertical resolution	72 dpi
Bit depth	24
Compression	
Resolution unit	2
Color representation	sRGB
Compressed bits/pixel	

Figure 7



Camera	
Camera maker	Canon
Camera model	Canon EOS REBEL T5
F-stop	f/9
Exposure time	1/200 sec.
ISO speed	ISO-100
Exposure bias	0 step
Focal length	18 mm
Max aperture	3.625
Metering mode	Pattern
Subject distance	
Flash mode	No flash, compulsory
Flash energy	
35mm focal length	

Figure 8

I didn't do much in the post processing. I darkened the image a bit by changing the curves in Photoshop, and cropped the image to block out some of the surroundings at the bottom, and to make the trees look more ominous and looming. The curves can be seen in figure 9.

Closing Thoughts

I am happy with the way the image came out, it tells a unique story and conveys the way I was feeling as the photographer. Before I took this image, I slipped off of one of the rocks into the river. I was high off of adrenaline from the fall and saving my camera, and also numb from the icy waters of the river. I think the image does a fantastic job conveying a chilly feel, ominous and intense. My favorite part of the image is how the clouds outline the trees and how mysterious they look. Something I am not entirely happy with is the surroundings and how dark they look, when I tried to brighten them up Longs Peak became too bright and indistinguishable. Though this image was completely spontaneous I think it fulfills my intent of telling a story through an image. I would have liked to have been in a more controlled environment where I could have framed the trees better and maybe focused on Longs Peak

as well. In order to do this getting out of the river is the first step and using a tripod for more stability is the second step. Finally please look at the before and after images on the final page.

Before

After