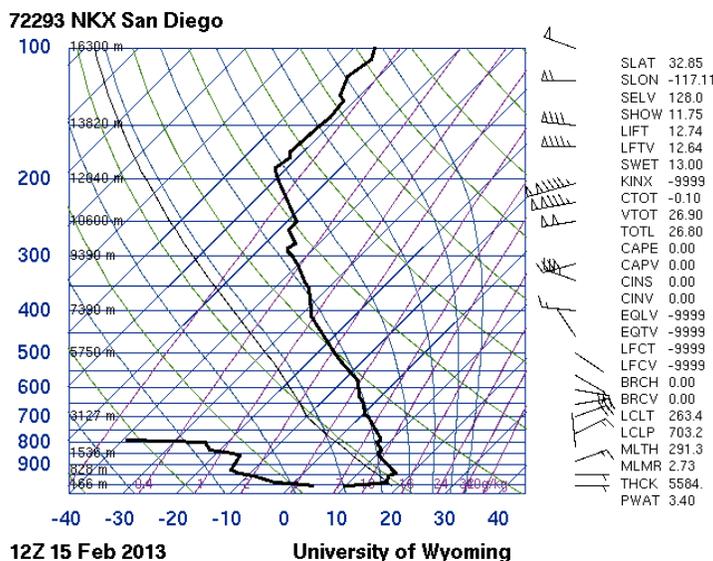


### Cloud Image 1

The cloud depicted in the image is a unique and interesting cloud because it demonstrates a cloud phenomenon that describes the atmosphere around it. This essay will describe the type of cloud that was formed, what the atmosphere was like on this particular day and time, and how this cloud image was taken and altered to become a piece of art.

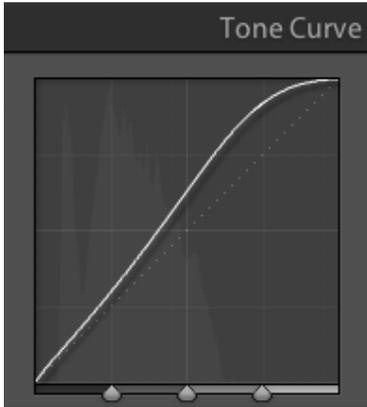
The image was taken in San Diego, California. The time that it was taken at was 7:17PM on Friday, February 15<sup>th</sup>. This was an interesting time of day because it was evening and the sun had set so it was out of the image and didn't cause any glare. However, the sky was still lit from the residual light from the sun setting. Personally, I like this time to shoot more than any other time of day because the complications of taking a sunset image are reduced. It is also interesting to note that the image was taken facing west, toward the ocean. This could have contributed to the formation of the cloud.

The cloud type depicted in this image is a cirrus uncinus cloud. These clouds are easily recognized because they appear wispy, but with 'hooks' on the end that makes it look like someone disrupted the edges of the cloud. Cirrus clouds are typically found at higher altitudes; typically in the Troposphere. The Uncinus nomenclature means that the clouds are 'hooked' at the ends. Each tine of the formation is actually formed by tiny bits of precipitation that are being blown by the wind. They typically indicate that there is moisture in the atmosphere when a warm front is coming in. This is especially logical because the photo was taken near the ocean. Warm currents of air occur around large bodies of water, creating the 'warm front' that created the clouds. The tines of the cloud were also pointing more inland, showing that the breeze from the ocean was moving in an easterly direction.



Above is a Skew-T diagram, provided by the University of Wyoming, for the date of February 15<sup>th</sup> in San Diego, CA. This diagram tells a lot about the stability of

the atmosphere on this particular day. The Dewpoint curve (left solid curve in the image) indicates that precipitation was not likely to form on this day. This is characteristic of the precipitates contained in the cirrus uncinus clouds. The right solid curve, the temperature curve, indicates that there is a lot of stability in the atmosphere, with some patches of instability. Because cirrus clouds are typically found in more stable atmospheres, this is logical. The high wind speeds indicated on the right also explain how the clouds became wispy.



This image was taken with a Canon EOS Rebel T3 digital SLR camera. The settings were ISO 500, an aperture of f/4.5, and a shutter speed of 1/40sec. 500 was a fairly small ISO to use for this image. However, it may have been more beneficial for post-processing to use a lower ISO in order to further reduce noise. The aperture used for this image ensured that the camera was taking in enough light while also focusing on a larger depth of field so the clouds would be more focused. The low shutter speed made the image darker than if a longer shutter had been used. In this case, the shutter speed contributed to the darkness of the cloud,

but also made the background sunset darker. No flash was used to take this image. This was a good decision as a flash may have changed the contrast by brightening the cloud and thus dimming the sunset colors. The image was also cropped from 4272x2848 to 3529x1501. This was an attempt to cut out the bright cityscape below the cloud. It may have been interesting to leave some of the cityscape in the image, however, to give more contrast to the dark cloud.

The first edit of this image was the crop. This was done to focus more on the cloud than the bright city lights in front. Next, there was a triangle of light in the bottom left corner that was removed and replaced with the same gray as the clouds. Contrast was added and the tone curve was edited slightly to increase the contrast of the highlights in the image. Finally, the image was sharpened and then smoothed in order to get clear but soft edges of the clouds.

One of the artistic qualities of this image includes a contrast between the dark cloud and the brighter blue and yellow background. The image also took advantage of the wispy clouds and was softened to get a calmer, less sharp image. One gets a calm and cool feeling when looking at the image. There is also something interesting yet ominous about the darkness in the clouds. The sky is a beautiful median between sunset and night time in which neither one is solely present.

Overall, I am very pleased with this image. It shows a unique cloud shape and color. It also had great contrast and a cool color gradient that went from a dark blue to yellow, showing the beauty of a sunset. It was especially interesting learning about what the cloud formation showed about the atmosphere. A lot was learned from this cloud image that will be utilized in the next cloud image. As discussed above, the shutter speed was very low for this photo. If a longer exposure were used, there would be more light in the background sunset. A higher contrast could have been obtained using the imaging software.