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Arts 5097

For our fifth project we were again asked to observe the phenomena and occurrence of cloud formations. The purpose of this image is to again observe atmospheric phenomenons. The intent of this image is to capture a cloud formation to gain more insight into the formation of cloud patterns. As with the first could project, my object was to create a beautiful image as well as focusing on the scientific reasons for its formation.

This photograph was taken from about a 45-degree angle from my back balcony. It was taken this past February in the early evening around 4 pm. The sun is shining through the clouds a little to the left, out of frame. The temperature was between 40-50 degrees.

The field of view is about 5 miles. I used a digital SLR Nikon D-70, with a 6.1 mega pixel resolution with a 24mm focal length. My aperture was set at f:11 with a shutter speed of 1/500 of a sec at an ISO of 400. The pixel dimension of the original image is 3008 x 2000 pixels at a resolution of 300 dpi. As I was checking the levels of the image, I color corrected to find the dark and light colors and snapped the neutral midtones to enhance the highlights, lowlights and midtones of the photograph.

After looking at the cloud chart and discussion, I classified this cloud pattern as altocumulus lenticularis, also known as a mountain wave. Altocumulus lenticularis are medium high clouds, which form somewhere between 8000 – 2500 feet. The formation of altocumulus lenticularis indicates that the upper air has become stable and showery or stormy conditions have dissipated. Although this formation is stable it is still associated

with strong winds and standing waves in the atmosphere. This cloud formation is fairly uncommon, as it is formed only in mountainous terrain on the leeward side where pressure changes. In the lee of the Front Range, these clouds proliferate amidst wintertime's strong westerly flows. As the air rushes over the Rockies, it undulates, forming stacks of standing waves over and in the lee of the mountains. Air rises on the one side of a standing wave, condensing water vapor into laminar, layered formations[1]. Some interesting facts about this cloud formation are that the word lenticularis means lentil, which is what they look like and also that, this type of cloud formation is stationary in the sky and does not move with the wind like other clouds[2].

This image of this cloud formation is very interesting, and feel that it captures the cloud phenomena well. I learned a lot about clouds and how they are formed trying to distinguish this formation. I did have a little trouble classifying them at first, but with a little help I figured which type of cloud phenomena it is. It shows how clouds act and re-act due to the Front Range. I feel that I fulfilled my intent by photographing a very scientifically interesting and beautiful rare phenomenon.

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[1] R. Edwards, 2002. Rogers Sky Pixs. Mini Cloud Atlas: altocumulus lenticularis. http://www.stormeyes.org/tornado/SkyPix/lenticul.htm

[2] Chitmabo, 2005. Clouds and other meteorological Phenomena. http://www.chitambo.com/clouds/cloudshtml/lenticularis.html