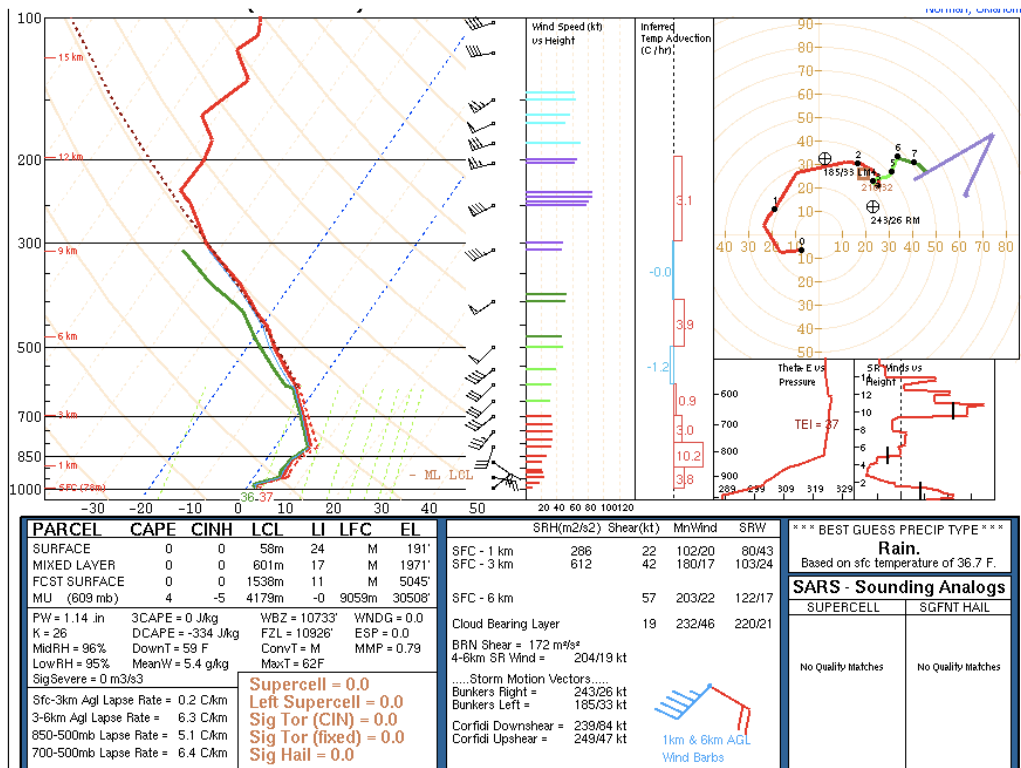


J. Chris Miller
Clouds #2

The purpose of this project is to observe different forms of clouds and document them through photography. I enjoy observing the atmosphere from a high altitude in a mountainous setting. I wanted to capture mountain weather in its extreme nature. I believe what I captured is a form of Altocumulus Lenticularis. I have included 2 different images one from October and one from November 25th. The one from October shows inversion, and the flow over an obstacle- Longs Peak. I unfortunately do not have the skew T for this day, so I included a picture from Woods Creek, specifically Shadow mountain that lies on the continental divides somewhere between Berthoud Pass and Eisenhower tunnel. This photo shows some altocumulus clouds that are sculpted by the high winds. Taking pictures of clouds while high in the mountains gives a much more head on perspective, and the image simply is clearer. The sky gets more blue as the clouds get closer, one finds themselves actually walking amongst the clouds.

The continental divide was the flow apparatus for both images. The Skew T plot for November 25 in Denver that day shows a very stable and uniform atmosphere. There were very high winds that accounted for the lenticular type altocumulus clouds. The high winds sculpted the clouds into their shapes. The picture was taken at about 12000 feet, and the cloud level appeared to be not much over 14000 feet. These occur when a stable air mass flows over a mountain range with the moisture to form clouds.



The photo of Longs peak describes and inversion, in which a warm air mass moves over a cooling one. Humidity in the cooler mass will cause clouds or fog. This day in

October was a typical inversion day in the front range of Colorado. A cool air mass enshrouded Boulder and the foothills. It was cold, with a mix of freezing rain and snow in the air. We drove to the trail head in Rocky Mountain National park that was very ominous, right at the cloud level at around 9500 feet. We climbed Flattop mountain in efforts to get some turns on Tyndall Glacier, and we got the relief of a jetliner. Clouds below and blue skies above. There was a unique strand of a cloud that showed flow over Longs Peak, looking like a wind tunnel .

The field of view is about 1 to 2 miles for the altocumulus. The camera was set to 80 ISO, aperture of F8, shutter speed of 1/1000. The Camera records the images in JPEG format. . The camera is a Sony Cyber Shot dsc-h5 7.2 mega pixel digital camera. It shoots 3072 pixels by 2304 pixels which amounts to 7077888 pixels. The camera does not have a RAW function, with the FINE setting being the highest and the one that I used. The picture of Longs was shot at the same setting, only the field of view was more like 10 miles. Photoshop was unnecessary for both of the images, the days that they were taken it was very clear and crisp.

The Longs Peak photo reveals a typical inversion and demonstrates the flow over a barrier, in this case clouds over a mountain. The image of the lenticular cloud shows the shaping of clouds from the winds. I enjoyed both for it is always interesting taking note of cloud movements in the mountains. It is often like the sea's interaction with the shoreline. Aesthetically it shows movement, the life of the Rocky Mountains. It shows the deep relationship between the weather and the mountains, they seem to have a symbiotic relationship. The mountains create their own weather, an the atmosphere provides the moisture which has a life cycle through the snowpack and eventually to living organisms, and well, our reservoirs.



