Amanda Barnes 810231515 November 29, 2007 ARTS 4017-004 Flow Visualization

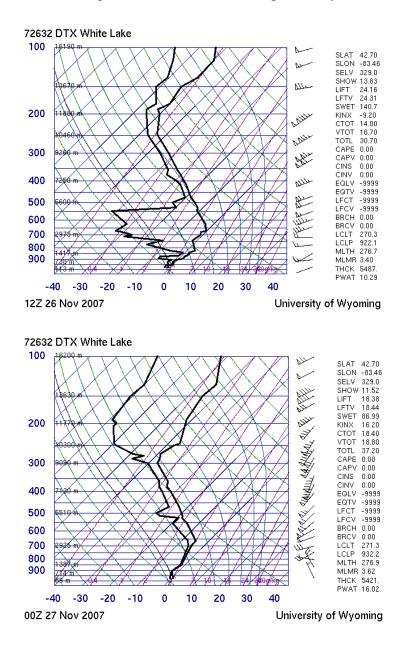
## Clouds Assignment #2

Since the last clouds assignment I have been finding myself looking at the sky more and more. Unlike the previous assignment I have a large amount of photos to choose from to submit. The photograph that I finally settled on is an image of the sun breaking through the clouds on an overcast day in Michigan. This photo means a lot to me because I took it at my Grandma's farm two days after her funeral. While photographing theses cloud sunrays would come through the clouds looking almost heavenly.

The key to taking a photograph such as this is for it to be an overcast day which unfortunately is fairly rare in Colorado. Then when the clouds start breaking up, look at the light coming through the clouds. It is important to set the light reading to the sun rather than to the clouds so that the photo is not overexposed. The clouds will lose some of their detail and to be a bit darker but otherwise it will be too light and the photo will not capture the lighting.

The visualization displayed in this image is the collection of water droplets suspended in the atmosphere to create numerous nimbostratus or stratocumulus clouds. This image displays a still image of the clouds as the sun shines through them. The only lighting used in this image is from the natural sunlight.

The camera used when making this image is a Nikon D40X digital SLR. This camera has 10.2 mega pixels which captures 3,872 x 2,592- pixel images. The lens' total range is 18-135 mm, f/3.5-5.6. The size of the field of view in the image is very large, immeasurable from the ground. Also, the distance between the lens and the subject is inestimable because it is so large. The focal length for this photo was 38 mm with an f stop of F/11. The exposure time was 1/500 second and the ISO was 100. This photo was taken on November 26, 2007 at 12:23 PM from Dexter, MI. There are only a few manipulation made to this image in Photoshop. I slightly increased the contrast, saturation, and the gamma correction in the exposure layer.



There were several images of clouds that I took the last few weeks that am fond of, so I chose to also include an image that I took on October 28, 2007 from the plane flying from Pittsburgh to Denver. I chose to use the first image for the report because the image meant so much to me. I tried to further understand the physics associated with cloud and understand this particular day, however I am still struggling with it even after attending all the clouds lectures. I included two skew-Ts because the photo was taken in between the times of these two charts. Unfortunately I am unable to analyze the skew-T chart, so I have just included the two above for the readers' sake.