

Clouds 2

For my second clouds assignment, the intent was to capture a fairly dark and low level cloud. I wanted an ominous looking photo that had something unique to make it more identifiable from other clouds of the same type. For this cloud, there was an interesting turn of events while I was in San Antonio, TX. It was interesting that one of the days there happened to be a pattern of low level dark clouds encompassing the city. It was interesting because there wasn't supposed to be. Also all other days there were nearly no clouds to be seen. I took several images of the sky and one in particular caught my eye. It was a cloud with a column of light piercing through the cloud coverage. I was able to diagnose the clouds as low level type nimbostratus.

The final image of the cloud was taken near downtown San Antonio, TX nearly straight up above the river walk. The image was taken roughly 20ft south of the Hilton Suites on the river walk. The angle was somewhere between 80° to 85° horizontal from the street. After several attempts, approximately 20, the final image was taken on March 26, 2012 at 2:46pm or approximately 2000 UTC time. Also absolutely no zoom was used in the capturing of this image. This was due to the fact the cloud in question was relatively large in scope.

In short the best description of the cloud in question was most probably a nimbostratus¹. This was based on several observations of the physical conditions that day, and then assumptions were also made based off the skew-T plot. More so in the area of physical observations, the cloud layer was rather low, dark grey, and blanketed the whole city. This was somewhat of a problem because there could have been clouds on top of the nimbostratus that I was not able to physically see. The image that was taken had a column of light piercing through the cloud and the column seemed to go on much higher the cloud in the image. Also, the cloud also slightly precipitated later that day and the skew-T plot showed that there were most probably low level clouds. As for the day after and the previous day there were absolutely no clouds to be seen nor was there any noticeable wind.

Now the physical observations for that day were slightly strange. There were almost no winds that day but there were a lot of thick heavy clouds overhead. Perhaps the clouds may be due to the humidity and possibly a temperature inversion. According to the data collected from the skew-T plot there was some precipitation and unstable air due to a cape of 1550. Also from the plot we can see that there were in fact very low level clouds somewhere around 1500m high. The temperature was also roughly around 25°C at around 850mb. Under these conditions it is very possible that the cloud in the image was in fact a nimbostratus and the condensation point line would coincide with the fact that there was some precipitation.

The photograph technique used for the capture of this image was relatively simple based on the limited capabilities of the point and shot camera. The hardest part was getting the clouds to pop out

¹ "Learn How to Identify Cloud Types | Sciencera", n.d., <http://sciencera.com/earth-sciences/meteorology/learn-how-to-identify-cloud-types/>.

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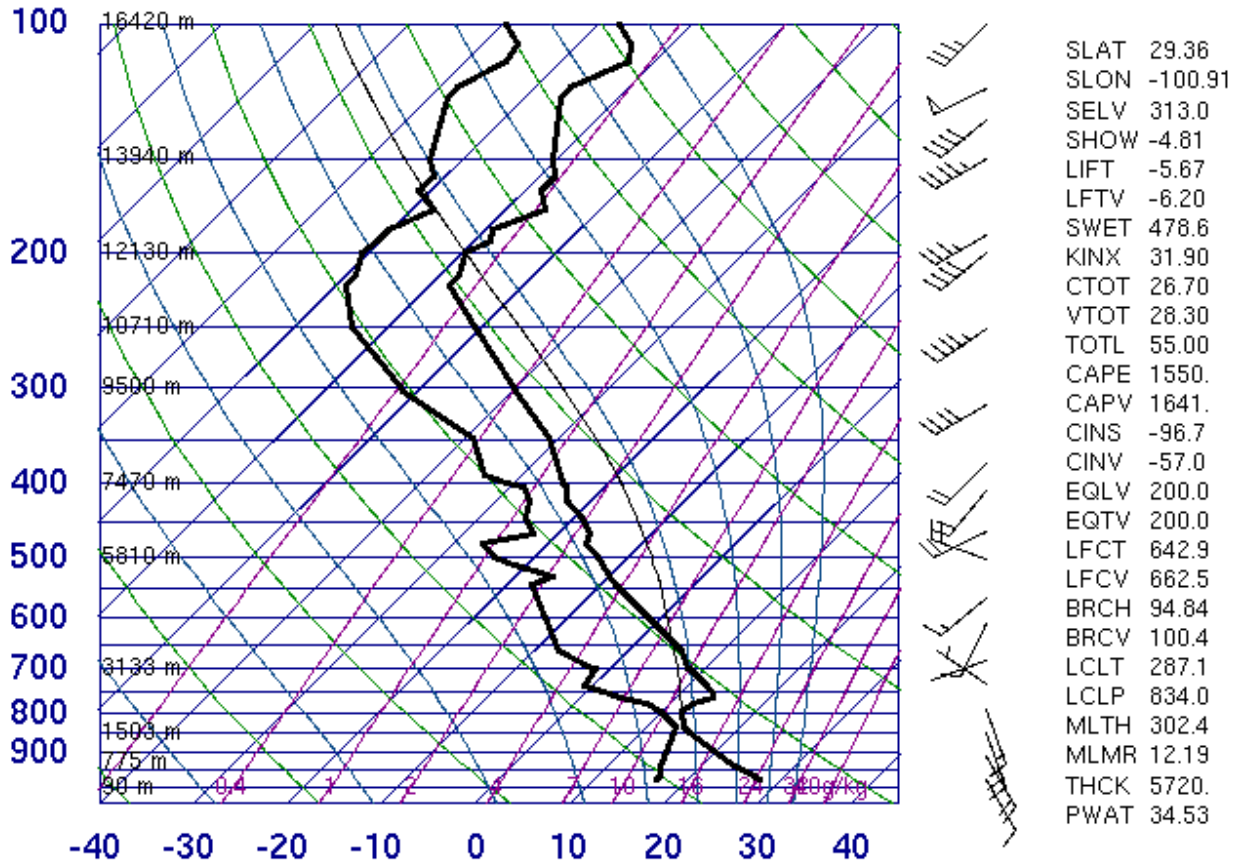
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from each other in the image because they all looked like a single blanket. The next obstacle was altering the ISO enough to get a brighter image so the clouds would be visible. Other than that the image was taken by hand held nearly straight upwards from the ground. Overall, the camera used for the capture was a SONY 10.2 Megapixel Cybershot 2010 which resulted in an image of roughly 3648 x 2736 pixels. More so the settings for the image were an F-Stop of f/7.1 with an exposure time of 1/800 sec. The ISO was also fairly low at 125 and had an aperture of roughly 3.625 and focal length of 10mm. Lastly, the most critical step in evolving this picture was to adjust the levels, curves, and saturation in GIMP 2.0 to give an image that popped not only in color but could be distinct enough to allow one to see the differences in the shape of the cloud.

Overall, my image revealed everything I had in mind. It was a somewhat more complex looking image of clouds and was ideal for showing an unstable type of atmosphere. It was nice that I was able to get an unstable type cloud and in a place where there are literally no mountains in order to make sure it isn't any part of a mountain wave cloud. I just find it phenomenal that this cloud system managed to move its way into San Antonio within a day's time and disappear just as quickly. Although in the future I would like to possibly plan more ahead and remember to bring my Nikon camera to take an even better image and have better zoom on and camera settings. A good idea might be a frame by frame to capture the cloud system at work and precipitating.

72261 DRT Del Rio



00Z 27 Mar 2012

University of Wyoming

References:

“Learn How to Identify Cloud Types | Scienceray”, n.d. <http://scienceray.com/earth-sciences/meteorology/learn-how-to-identify-cloud-types/>.

“72261 DRT Del Rio Observations at 00Z 27 March 2012 - 00Z 28 March 2012”, n.d.