

The second project of the semester asks us to observe clouds. There are many different kinds of clouds, so we were asked to take many photographs of many different cloud types. We were also asked to determine why a certain cloud type was present in that current weather. The photos needed to show the type of cloud the student was trying to capture, as well as be aesthetically pleasing.

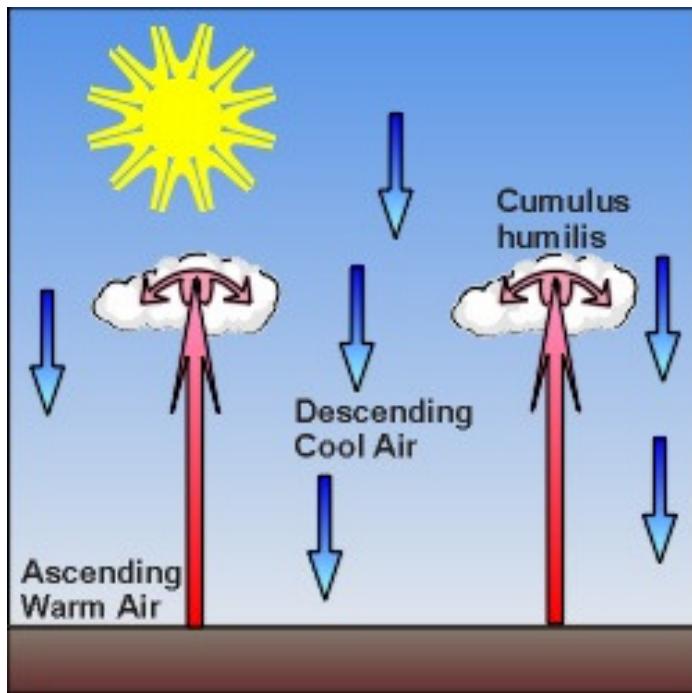
The photo I decided to use was taken on October 10, 2007 at 6:15 P.M. The sun was just about to set, so the light hit the cloud from the side. This photo was taken facing north-west, with a compass bearing of 305 degrees. It was also about 35 degrees above the horizon. The weather was sunny, partly cloudy, and 68°F. The photo was taken on top of a hill at latitude: 39° 55' 10.4", and longitude: -105° 4' 11.39".

The camera used was a Canon EOS Digital Rebel XTi. The aperture was set for F: 11 with a shutter speed of 1/250 sec. The ISO speed was set for 200 with a focal length of 69mm. The dimensions of the photo are 3888 x 2592 pixels with a resolution of 72 dpi.

Using the cloud chart from class, I classified the cloud in my picture as a Cumulus humilis cloud. "Cumulus clouds form as water vapor condenses in upward air currents above the relatively warm earth's surface. These clouds usually have flat bases and lumpy tops. Cumulus clouds are usually isolated with large areas of blue sky in between the clouds. Most Cumulus humilis clouds form below 6000 feet/1,8 km above sealevel, are relatively thin and associated with fair weather." (Hulshof) This is why the cloud in the picture looked the way it did. It was a beautiful day, with large areas of blue sky in between clouds.

Cumulus clouds are created from updrafts, or thermals. The warm air from the thermals rise, and once the warm air reaches its condensation level, it will form a cloud. Condensation level is where the humidity in the air reaches 100%, and the air forms into water droplets, or in our case, a cloud. This type of cloud is called a Cumulus cloud. Many times, the clouds will continue to grow because of the overlying air allows it to do so. In the case of a Cumulus humilis cloud, "the sinking airmass and overlying elevated inversion prevent the cumuli from reaching great heights, and we have cumulus humilis. Humilis means humble in Latin, and accurately describes these smallest members of family Cumulus." (Heidorn) This phenomenon can be observed in the diagram below:

[Heidorn](#)



The purpose of this project was to take a picture of a cloud, classify it, and find out why the cloud was formed the way it was. The picture I took was of a Cumulus humilis cloud. It is generally a fair weather cloud, and was formed on the day the picture was taken because it was a very fair weather day. Overall, I like the picture that

was taken. Not only does it represent the type of cloud very well, it also incorporates nice lighting due to the sun setting. For the next cloud project, I would like to use a photo of a cloud that is not Cumulus. Even though out of all my photos, the Cumulus ones were the most aesthetic, I think I can find some other very interesting and comparably aesthetic clouds.

Works Cited

- Heidorn, Keith. Cumulus Humilis: A Fair Weather Cloudscape. 1 March 2005. 10 October 2007 <http://www.suite101.com/article.cfm/science_sky/114146/1>.
- Hulshof, Bernard. Weather Pictures and Storm Chasing Cumulus Humilis Clouds. 2007. 10 October 2007 <<http://www.weatherpictures.nl/humilis.html>>.