

Tony Vo

Flow Visualization

3/1/10

Clouds #1



Introduction

This assignment was to observe and photograph a cloud. Although this may be abstract at first, it actually makes sense to closely observe clouds within this class. After all, clouds are just condensed droplets of water collecting within the atmosphere. Although trivial at first this was actually pretty difficult. Every time that a great, interesting cloud was observed I had forgotten my camera. Also the week and a half that led up to the due date was overcast with snow flurries that shielded the sky.

The Cloud

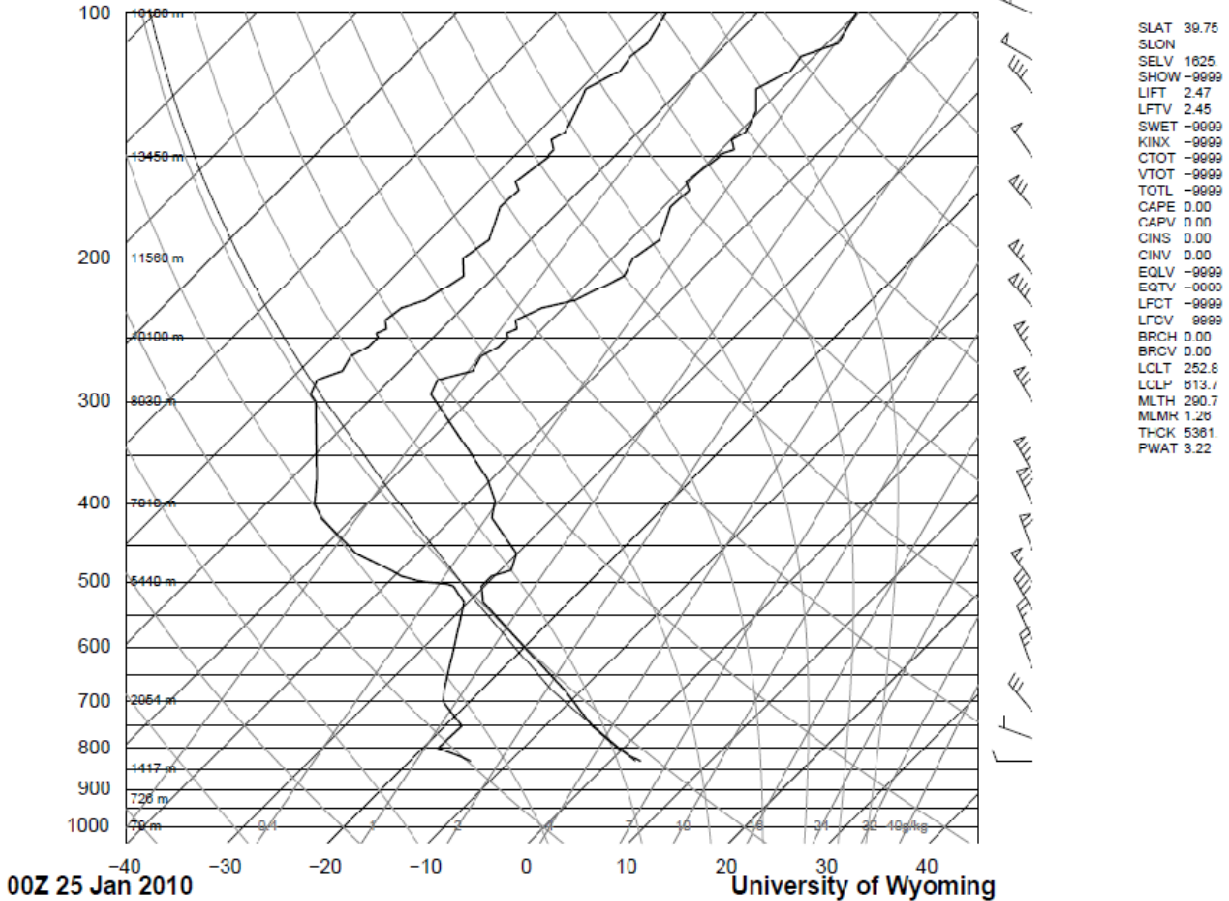
The photo was taken on the 24th of January, 2010 in Westminster, Colorado at 2:51PM with the camera facing due south. On the 24th the average temperature was about 35 degrees F, an average wind speed of 6.4 mph.

In the photo there are two cloud formations, one long slender cloud in the middle, and below that a layer of cloud that covers the surface of the earth. Due to the smoother edges and long slender shape I

would classify the higher cloud as an altocumulus lenticularis. And the bottom cloud is a little bit more difficult. From the distance it seemed to be touching the ground, so it could be called fog. Although I was unable to tell, it could have also been producing precipitation, if so it may be classified as a nimbostratus cloud. My initial thoughts when taking this picture was that it looks like a storm is on its way.

Skew - T

72469 DNR Denver



The above Skew - T was taken from the DNR station in Denver at 00Z on the 25th of January, 2010. This would be 6PM on the 24th. With the photo taken at 2:51PM this would be the sounding closest to that time. From the CAPE you can see that there was a stable atmosphere that day. Also right around 5440m you can see the dew point is approaching the parcel line. This would suggest that there were clouds at this altitude which is what I would say the upper cloud in the photo is at. From the skew-t you cannot estimate the altitude of the lower cloud.

Processing

The image was taken on the camera's auto setting, saving the image in RAW format. After this the image was cropped for framing to my liking and then contrast was adjusted with the goal of bringing out detail within the clouds. The photo specifics can be seen below:

Camera	Nikon D60
Date	1/24/2010
Time	2:51 PM
Shutter Speed	1/500
F-Stop	f/11
Aperture	f/11
MaX Aperture	f/5.6
ISO	100
Focal Length	55 mm
Flash	no

References

Skew-T

<http://weather.uwyo.edu/upperair/sounding.html>

Cloud Classification

<http://cloudappreciationsociety.org/collecting/>