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2/29/11

Clouds 1 Report

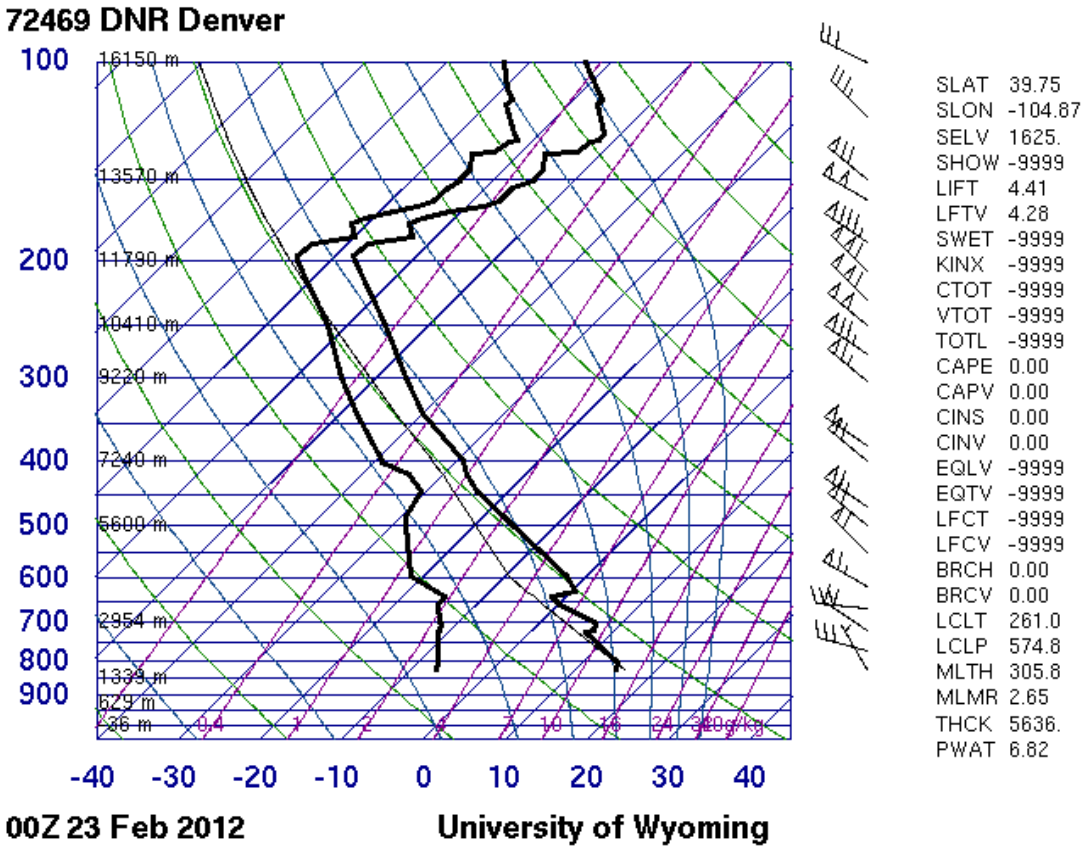
CLOUDS

The purpose of this image was to capture a detailed section of an unstable cloud system. The system was moving from west to east over the Rocky Mountains. At the time of the photo there were very high winds, as gusts of nearly 90 mph were recorded in the area. The image was captured with a zoom lens, enabling me to capture just a small portion of the cloud.

The picture was taken at an approximate angle of 45 degrees from the western horizon line. This puts the framing just above the front-range mountain peaks. It was captured near Folsom and Canyon Blvd. in Boulder, CO, around 2 pm on Wednesday, February 22.

The clouds featured in the image appear to be a mountain wave cloud, judging by their height in the sky. The sky around the clouds was particularly blue where other clouds didn't fill. Winds were prevalent throughout the entire day, gusting to nearly 90 mph. The following morning brought snow showers, which tells us the wind and cloud systems on the day of the picture were a prelude to the storm. By looking at the Skew T diagram below, we can assume the clouds in the image were resting at about 6000 meters at the time of the image capture. This puts them nearly 4,400 m above the ground, as Denver lies around 1,600 m

above sea level (Web, 2012).



The technique used in capturing this image was determined by my choice to zoom in to just one section of a larger cloud system. Using a Canon Rebel XTi, I made the appropriate adjustments for the best quality image. First, I adjusted the F-stop to accommodate for the extremely bright day. I set it to F 32 in order to let less light in. Because I was shooting an object so far away from the camera I had to use a focal length of 95 to capture the detail of the cloud as best I could. With an exposure time 1/320 the camera was able to capture the cloud in detail before it shifted form in the sky. Once the image was captured at a resolution of 3888 x 2592 px I took it into Photoshop for some post production

changes. I cropped in closer to get a more detailed look at the clouds. After this I did a minor auto level adjustment, which brings out the white of the clouds, contrasting it from the blue of the sky. With this, I came to my final image displayed at the conclusion of the report.

This image reveals the flow of a mountain wave cloud that was part of an unstable cloud system. This system was part of a cold front blowing in from the mountains west of Boulder, CO. This is apparent as the following morning brought cold temperatures and snowfall. I chose to only capture a small portion of the cloud in an attempt to get a detailed flow. Having said that, I think it would have also been interesting to capture the entire cloud system in order to see the clouds full development. All in all, I think final product shows the cloud's flow adequately.

Sources

1. Web. 09 May 2012. <http://weather.uwyo.edu/cgi-bin/sounding?region=naconf>.