

Clouds 1

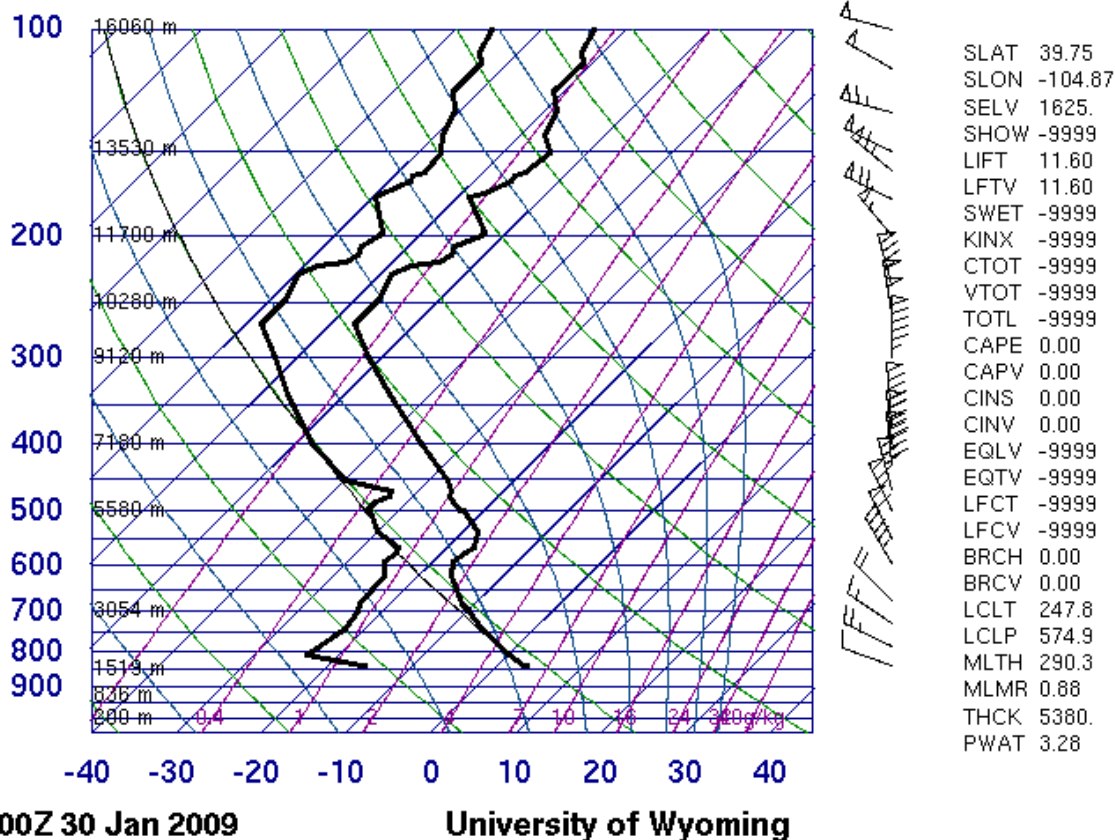
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Flow Visualization
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This image was taken for the first cloud assignment. The intent of the image was to capture the clouds above the mountains. The clouds are just above the mountains to the north of boulder. They were beautiful and wispy.

The image was taken at Folsom and Canyon Street facing north-west. The camera was held about five feet off the ground at an angle of about 20 degrees to horizontal. It was taken at 3:45 pm on Thursday, January 29, 2009.

The clouds captured in this image are Cirrostratus. The sky to the east was fairly cloudless, but over the mountains were lots of clouds. They all looked like cirrostratus clouds.

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Figure 1: The Skew-T plot for 6 pm on Jan 29 in Denver, Colorado

The Skew-T plot shows the atmosphere as conditionally stable until about 10,000 feet and then transitions to stable. The clouds appear to be at an altitude of about 6,000 m or about 2.75 miles above the ground. Cirrostratus clouds are high clouds that form when the water in the air reaches the dew point. The slight rippling effects in the image are

most likely from the changing wind speed around this elevation so the air is forming a vortex.

This photograph has a field of view of approximately a half mile by three quarters of a mile. The clouds were probably about three and a half miles away. The image was taken on a Canon EOS Digital Rebel XS. The focal length of the lens was 55 mm, the image size was 3888 x 2592 pixels. The metering mode was center-weighted. The aperture was set at 5.6 and the shutter speed was 1/4000 seconds. Curves was used in Photoshop to add more contrast to the picture and brighten up the sky.

This image shows cirrostratus clouds over the mountains. I like the patterns in the clouds and the wispieness of the clouds. I don't like the color of the sky in the background nor the fuzzy edges around the edge of the clouds. One can clearly see the cirrostratus clouds in the image and they show ripples in the sky, which come from the change in wind speed. I am not sure why the ripples are not perfectly parallel, but I assume it has something to do with the changing wind direction. I would like to be able to capture sharper lines in clouds; however I don't think these clouds would have allowed that.