Cloud 1 Write up

MCEN

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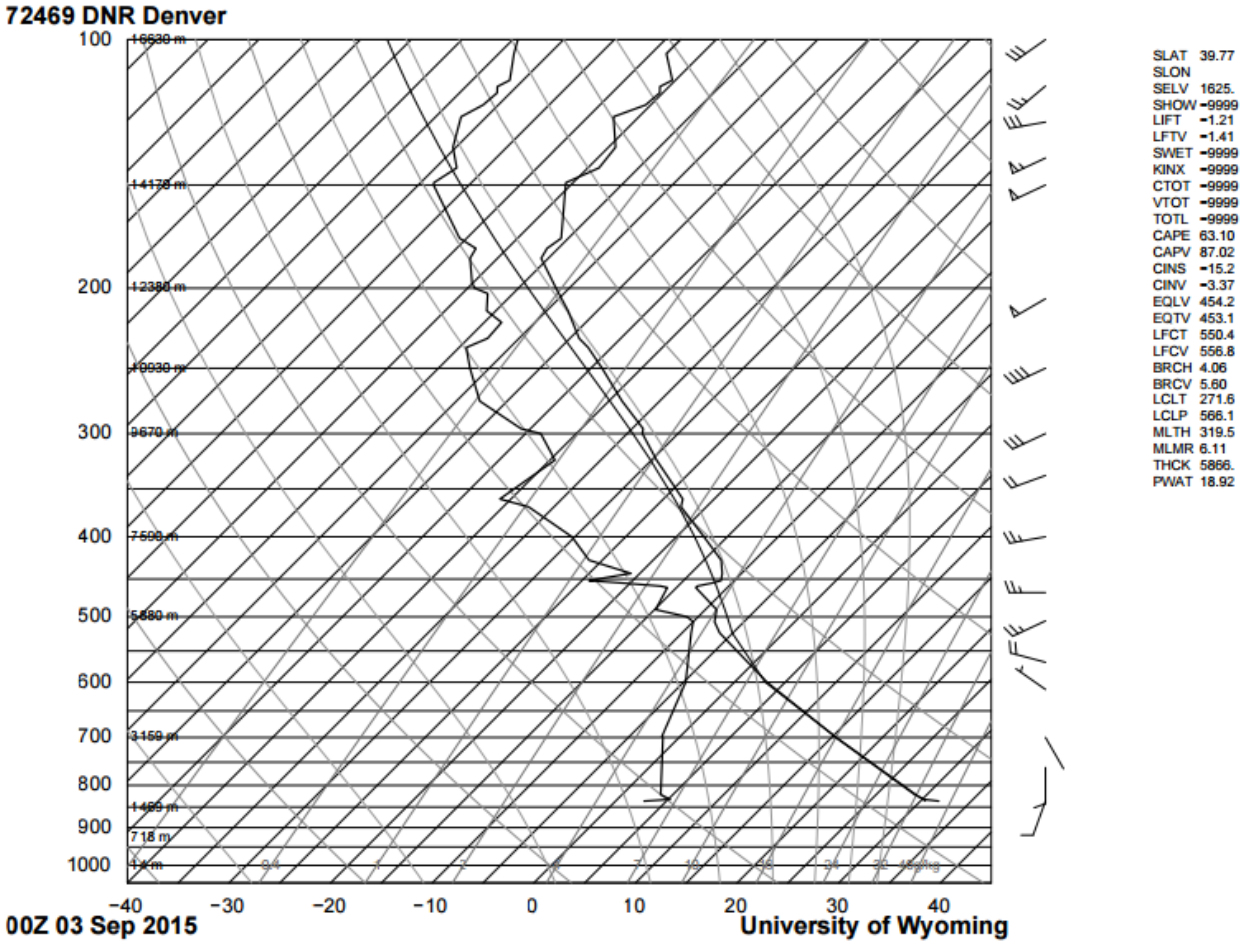
For this assignment the class was instructed to capture and identify a cloud formation of their choice. Over the course of a few days there were many different cloud formations that were good subjects that I photographed but none that I really liked. On September 2nd on the way home from school the sunset caught my eye. And the image above was the end result.

The image was captured on September 2nd by the Coors Event Center at the University of Colorado at Boulder. The image includes the dome of the CU business school, and the surrounding foothills. The image was taken at 6:43 pm. The camera was angled about 10 degrees above level with the horizon. The camera was facing nearly due west and the sun had already set behind the mountains but the sunset was in full swing.

The darker clouds are believed to be small cumulus clouds. The yellow and orange clouds are having been identified as altocumulus clouds. The low instability in the atmosphere at the time of the image leads one to believe that the clouds may have been formed by local instabilities or terrain features. The weather for the day was clear with a few clouds spotting the sky. At the time the image was captured the temperature was around 70 degrees Fahrenheit. The cumulus clouds were most likely formed by thermal currents lifting small pockets of air into the atmosphere. Looking at the skew t diagram for DIA (shown below) at the time that the image was taken the most likely altitude for clouds to be formed at is about 19000 feet above sea level or 14000 feet above ground level. This leads to the conclusion that the clouds are altostratus clouds. Altostratus clouds normally form between 6,500 to 20,000 feet. The clouds are formed as large pockets of stable air are raised and the water molecules in the warmer air freeze as the air cools.

The entire field of view of the image at the cumulus clouds is about 10 km by 7 km. I estimate that the distance to the cumulus clouds to be a little over 10 km because I observed them behind the foothills but in front of some nearby mountain peaks. The altostratus clouds are estimated to be 50-100 km away because they continued down to where the clouds met the tops of the mountain peaks in the distance. The image was captured using a Sony Alpha with a f-stop of f/4.5, a 1/160sec exposure time and an iso of 100. The focal length at the time the image was captured was 55mm. the image is 5456 pixels wide and 3632 pixels high with a 900 dpi resolution. There have been no adjustments made to the image and it is shown in its original state.

This image reveals how different clouds form at different altitudes and how the colors at sunset span the altitudes. I like how the foreground is in complete silhouette and how it adds a level of depth to the image. I chose to include the dome because it is easily identifiable to most students at CU and the smooth and orderly lines of the dome contrast starkly with the natural shape of the clouds. I consider the image to be pleasing to lookout while still capturing the phenomenon of the formation of clouds. In order to improve this photo I would have liked more time to position myself and potentially capture a better known landmark such as Old main. I would also like to shift the frame up a bit to capture more of the sky and less of the building while still enabling the building to be easily identified.



"72469 DNR Denver Sounding." 72469 DNR Denver Sounding. University of Whyomeing, n.d. Web. 12 Nov. 2015. <http://weather.uwyo.edu/cgi-bin/sounding?region=naconf&TYPE=GIF%3ASKEWT&YEAR=2015&MONTH=09&FROM=0200&TO=0200&STNM=72469>.