

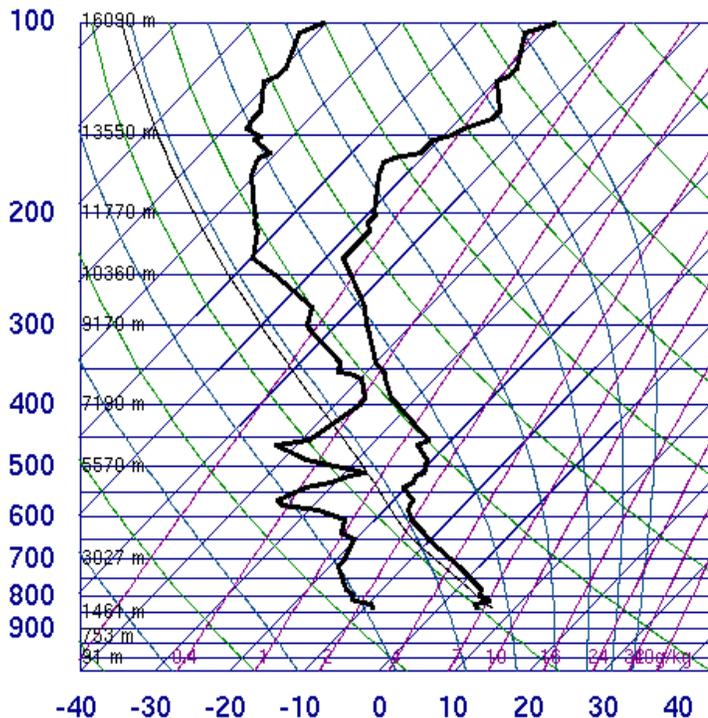
Zac Rice  
 February 26, 2014  
 Film 4200  
 Hertzberg  
 Clouds #1 report

I wanted capture the break up of a cloud as it passes over a peak causing mountain wave cloud to form. In order to do this I was going to speed up a clip of over ten minutes till the formation of clouds was easily viewable.

The image was taken in the northern corner of Farrand Field, the camera aimed to the west. Between the Cheyenne Arapahoe dorms and Wardenburg. The camera was about fifteen to twenty degrees above the horizon. I filmed on friday february 14 after 1:00 pm.

The video is of a cumulus cloud that is passing over the flat irons. This is causing the cloud to tear apart as well as condense into more cloud. The result of passing over created a stratocumulus cloud. This was the initial largest cloud in a mountain wave formation. Earlier that day the sky was completely clear with little to no wind. By noon there was a 9 mph wind peak speed. Weather spark says there was an 8500 foot ceiling. However, I doubt this because, the clouds were passing over the tip of the flat irons so I would say the ceiling was more like 2000 feet. The day before, was recorded moderate and light rain. One hour for each with a two hour break in between. It did not precipitate the day I filmed. The atmosphere was stable that day, the CAPE was 0. The instability of wind passing over a ridge causes unstable winds, that cause the cloud to tear. While on the other side of the peak, the Venturi affect causes water vapor in the air to condense as it passes over the peak.

**72469 DNR Denver**



SLAT	39.77
SLOE	-104.87
SELV	1625.
SHOW	-9999
LIFT	8.27
LFTV	8.24
SWET	-9999
KINX	-9999
CTOT	-9999
VTOT	-9999
TOTL	-9999
CAPE	0.00
CAPV	0.00
CINS	0.00
CINV	0.00
EQLV	-9999
EGTV	-9999
LFCT	-9999
LFCV	-9999
BRCH	0.00
BRCV	0.00
LCLT	258.0
LCLP	626.7
MLTH	294.9
MLMR	1.92
THCK	5479.
PWAT	4.44

**12Z 14 Feb 2014 University of Wyoming**

A telephoto focal length of 51mm, the camera is capable of 5.1mm to 51mm, creates a field of view that is about 3-4 degrees horizontally. Described as a 10x zoom. The distance to the clouds was about 2.5 km. The format was HDV (miniDV), so it captured 1080i.60, I exported and rendered the final project as 720i.60. I used a sony camcorder, HVR-A1U. The exposure was all the down, one setting above closing the shutter. All aspects of exposure are controlled in unison when on manual. The

final video features a 2000% speed increase, cutting the time from over 11 minutes to just over thirty seconds. Other color correction includes a 100% increase in contrast and 32% increase in saturation, as defined by iMovie. Blacks were also brought up by 20% to eliminate tearing that occurred.

