

Clouds First Fall 2025

Clouds framed by Flat Irons

Nathaniel Wheaton Flow Visualization 5151-001, 10/21/2025



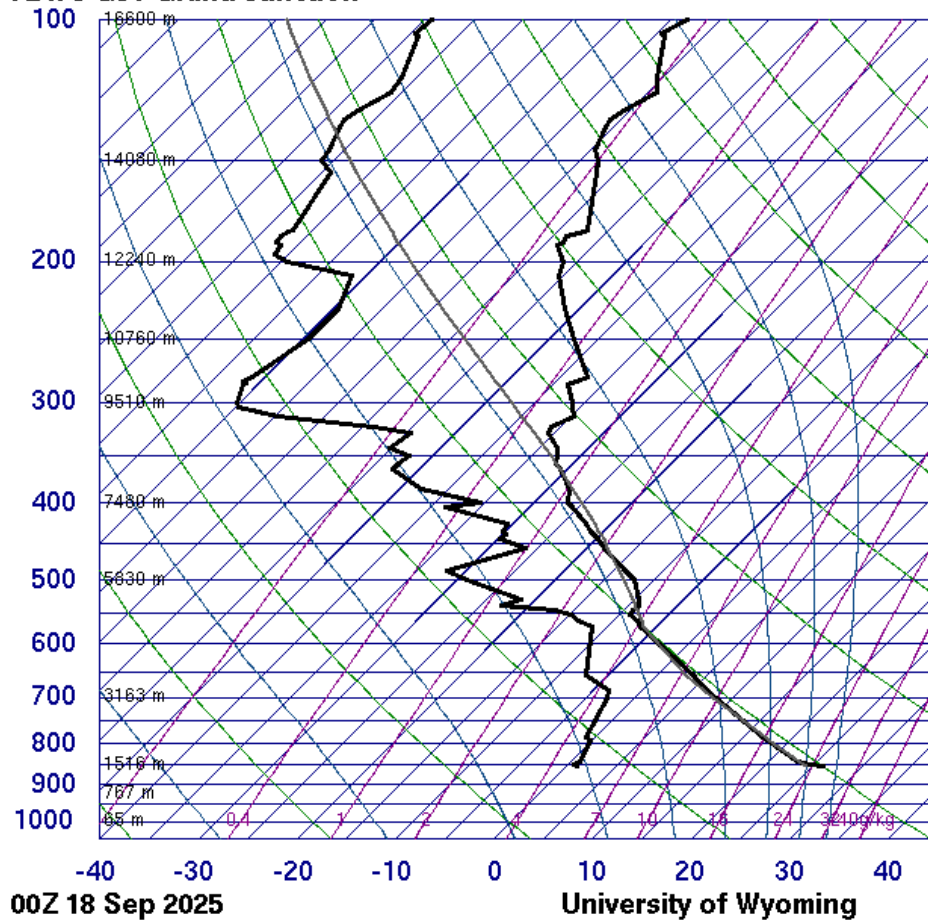
Intent

I noticed some particularly interesting looking clouds as I was walking to my car one evening, and I just so happened to have my camera on hand. I wanted to capture the large amounts of contrast in the sky. I took several pictures of various clouds, but this image had the best composition of all of my attempts. The large amounts of contrast and the framing of the flat irons really helps to highlight the scale of the clouds.

Conditions

I took this photo late in the evening (~8 pm) on the University of Colorado Boulder campus, on the top of the 436 parking lot, east of the engineering center. facing southwest at a slight angle above the horizon. The image was taken on September 17th 2025.

72476 GJT Grand Junction



SLAT 39.11
SLON -108.53
SELV 1475
SHOW 0.87
LIFT 1.01
LFTV 0.67
SWET 78.22
KINX 26.10
CTOT 12.50
VTOT 36.50
TOTL 49.00
CAPE 56.72
CAPV 74.79
CINS -42.6
CINV -29.3
EQLV 357.4
EQTV 356.5
LFCT 577.5
LFCV 583.0
BRCH 18.66
BRCV 24.60
LCLT 269.4
LCLP 603.4
LCLE 326.6
MLTH 311.2
MLMR 4.86
THCK 5765.
PWAT 13.82

Cloud Identification

The clouds observed in this image are identified as nimbostratus, supported by their dark gray color, dense layering, and the obscuring of sunlight due to the thick layer of clouds in the sky. This image was taken at a location where the clouds were thin, and the layering can be seen clearly. The rest of the sky appeared fairly overcast, and the weather leading up to the observation included slight rain. Within 3 hrs of the image, additional rain occurred. The atmosphere appeared slightly stable based on the above skew plot. The plot suggests low-level clouds consistent with nimbostratus clouds. Overall, the observed clouds match the expected conditions, with formation possibly driven by orographic effects due to the mountain proximity. The skew T will be slightly inaccurate due to the fact that the image was taken later in the evening and the atmospheric analysis was done the next morning.



Photographic Technique

The image was taken with a Canon EOS 600D which is a DSLR camera with focal length 25mm. The image was taken with the following settings; ISO: ISO-100, Aperture: f/7.1, and Shutter speed 1/100 sec. The unaltered image is shown above, the final image was created in Darktable, the main alteration to the image was the altering of the tone curve to lighten the light sections and darken the dark sections. The original image is 5202 x 3464 and the edited image is 4133 x 3136.

Image Commentary

The image captures a region of a Nimbostratus cloud where the lower levels of the clouds have thinned and the upper layers can be seen. I really like the fine details that can be seen through the hole in the clouds. I dislike the roof which can be seen in the lower right corner of the image, it distracts from the clouds which are the focus of the image.