Cloud Report-1

MCEN 4151 - Joel Carlson 10/25/2021

I. Introduction

I took this photo on October 13th, 2021 in northeast Boulder at 2:00 P.M. The goal for this photo was to capture an interesting cloud and highlight the beautiful shape and the vibrant blue sky. Because this is the first cloud image I wanted to focus solely on the cloud and not yet introduce landscape. I really wanted to keep it simple and highlight the raw beauty of a cloud in the sky. October 13th was perfect for this because the sky was unbelievably clear and had a beautiful blue color.
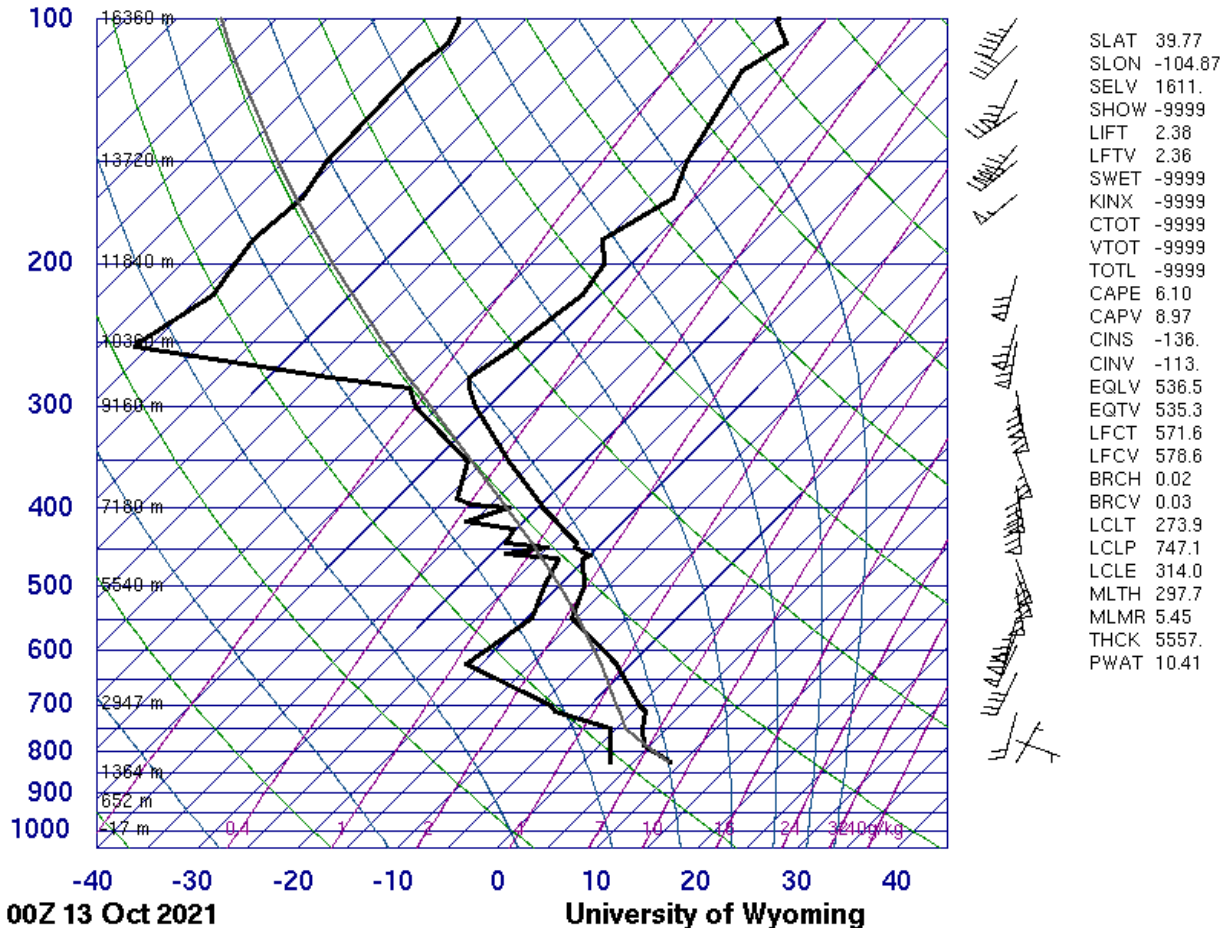
II. Cloud Analysis

Figure 1: Skew-T Diagram

The clouds I photographed are altocumuulus clouds. The photograph is zoomed in on a single cluster of these clouds. These are fluffy little clouds and they are fairly high up, likely between 4 and 7 kilometers, while Boulder is at about 1.6 kilometers. Figure-1 shows the Skew-T diagram at 6:00 P.M. on October 13th, 2021. The CAPE from the Skew-T reports 6.10 meaning a slightly unstable atmosphere. This is actually a really small CAPE and for reference, thunderstorms approximately occur at a CAPE of 500 and up.

III. Photographic Technique

Figure- 2: The Original Image

Figure-3: The Final Image

For this photo I used my roommates iPhone XS Max with default settings. The dimensions of the original photo are 3024x4032 pixels. The exposure was 1/1779 seconds. I was really surprised how well the photo actually came out and how little post processing was needed. The camera was able to capture the beautiful color of the sky really well without adjusting anything. For the post processing I used GIMP and made minor adjustments to the colors and saturations as well as cropping the image.

IV. Image Remarks

I thought that the image turned out really well and the color contrast between the clouds and the sky was really pretty. I thought that I did a good job of keeping it simple and highlighting the natural beauty of regular clouds on fall day.