Cloud Second

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Figure 1: A photo of cirrostratus clouds taken on the 23th of November 2024 at 9:32 PM MT in Allenspark, CO facing East.

Introduction/Background

This image was taken for the Cloud Second assignment in the Flow Visualization class at CU Boulder. The intent of the image was to capture the planet Jupiter shining through the cloud. It was taken in Allenspark Colorado on the 23rd of November at 9:32 PM Mountain Time, or 4:32 on November 24th UTC, facing almost directly East

Discussion

Seen in this image are cirrostratus clouds that, according to the skew-t chart from Grand Junction Colorado in Figure 2, are at an elevation of about 5000 m above sea level. It can also be seen in the skew-t that the CAPE is zero, meaning it was a stable atmosphere
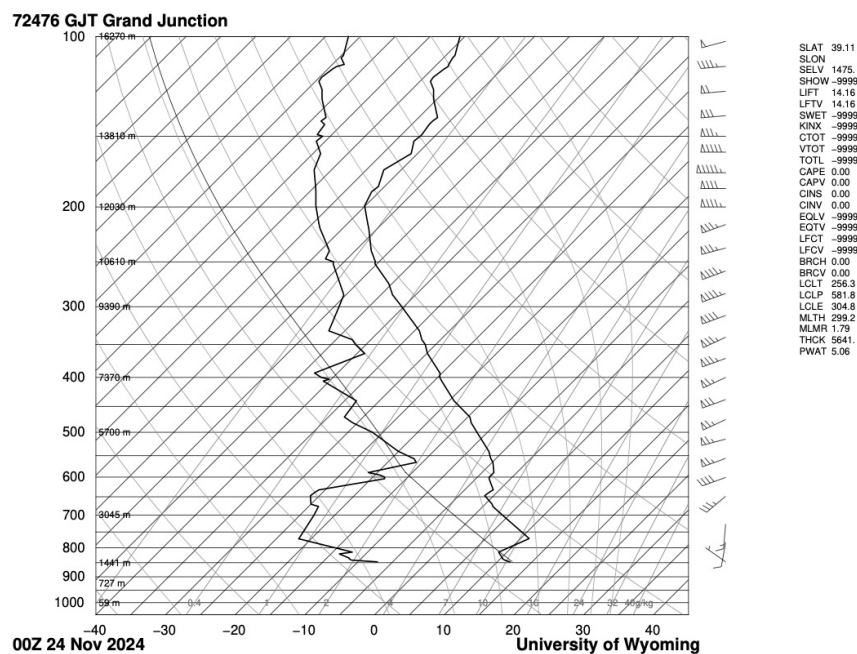

Figure 2: Skew-T data from the weather balloon station in Grand Junction Colorado taken at 00 UTC on the 24th of November 2024 [1]

Another interesting feature of the image are the constellations that can be seen in addition to the planet Jupiter. By using the star char in Figure 3, we can identify a few constellations including Orion, Gemini, Taurus, and Auriga in the image.
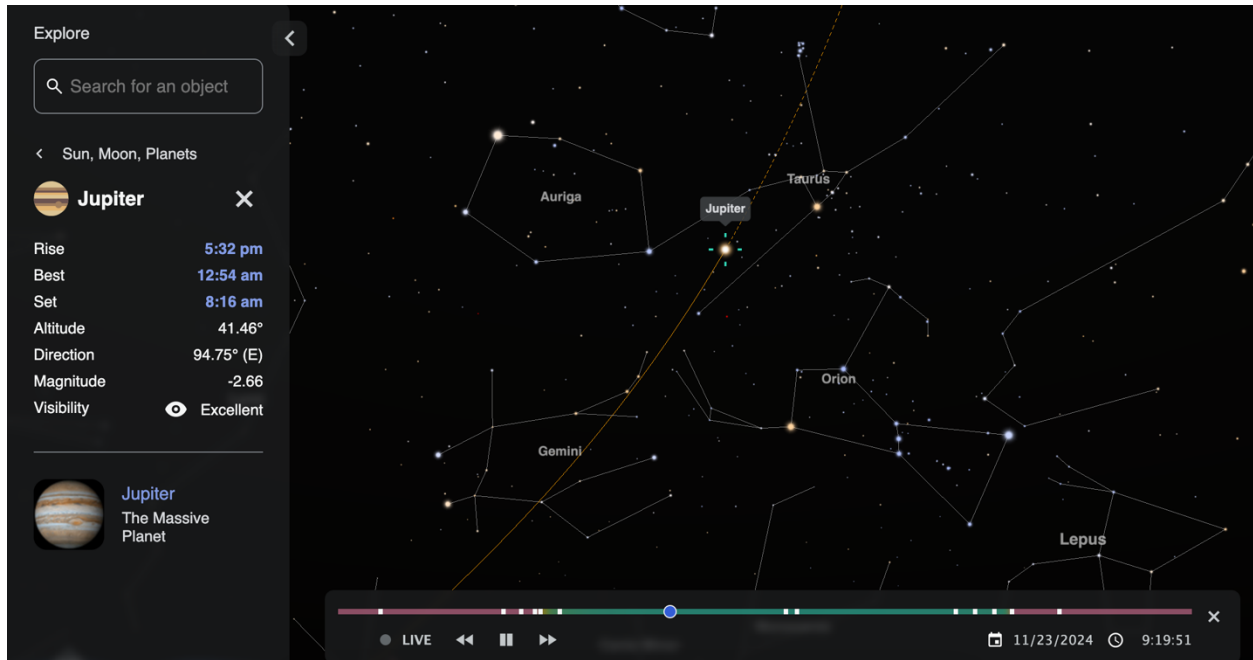
Figure 3: Star chart facing East from Colorado at 9:19PM Mountain Time on the 23rd of November 2024. [2]

This photo was taken on an iPhone 16 pro using the 24mm, 12 MP, 5000 ISO and f/1.78 lens. It had an exposure time of 10 seconds. The photo was 4032 × 3024 pixels and was left uncropped. Slight adjustments were made to the contrast, black point, and saturation as seen when comparing to the original image in Figure 4.

Figure 4: The original unedited photo.

I really like the definition of Jupiter and the other starts in the image. I also like the clouds in the distance at the bottom of the frame and if I could go back, I would have tried to focus more on those clouds. I would also have liked to take an image without the foreground elements in the photo.

Work Sited:

[1] https://weather.uwyo.edu/

[2] https://www.timeanddate.com/astronomy/night/usa/boulder