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MCEN 4151-001

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Clouds Second - Timelapse

Alto cumulus

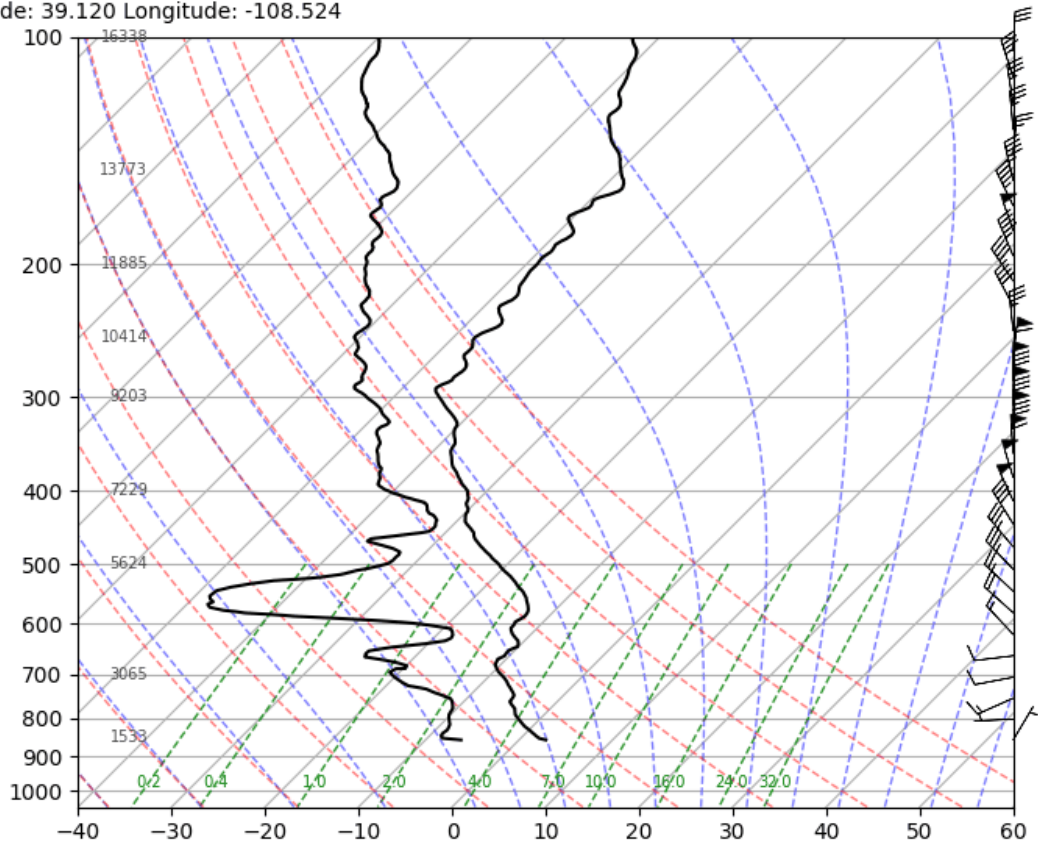


This timelapse, taken for the second cloud assignment, shows the development of a single cloud above the mountains. The goal of the video is to show the active changes a cloud goes through over a period of roughly 30 minutes.

The video was captured from my apartment balcony in Broomfield Colorado just after sunset on December 4th, 2025. The camera was aimed south-west toward the mountains and angled slightly upward to capture the sky rather than the city. The timelapse takes place from 4:30-5:00 PM, which can be noted by the progressive darkening of the sky throughout the duration of the video.

The cloud featured in this video appears to be alto cumulus due to its lower altitude and fluffy appearance. Though not the primary cloud visible in the original frame, this small cloud exhibited such great change that it became the primary subject. The sky had been quite clear throughout the daytime, and more clouds began to develop as the night rolled through. The atmosphere was stable, but winds began to pick up in the evening, which can be seen in the motion of the cloud. A relevant skew-T plot is provided in Figure 1. This cloud, floating not too high above the mountains, is estimated to be around 3500 meters in elevation.

Station 72476 at 00 UTC 05 Dec 2025
GRAND JUNCTION/WALKER FIELD, CO., USA
Latitude: 39.120 Longitude: -108.524



University of Wyoming Atmospheric Science

Figure 1: Skew-T Plot for Dec. 5th

The timelapse was captured using an iPhone 11 with the default settings for timelapses. It was captured at a variable rate of 2 FPS for the first 10 minutes, then 1 FPS for the remainder, and playback speed is 30 FPS. Despite the extreme crop that was taken to isolate this cloud from the full 1920x1080 pixel video (see Figure 2), the final edit is 1350x1080. The true scale, considering the crop, should be closer to 320x150 pixels. Aside from cropping, the video has not been edited in any other way.



Figure 2: Full Frame of Captured Timelapse

The most fascinating aspect of this video is the amount of motion which occurs within a stationary cloud. It would have been nice to focus on this cloud originally rather than cropping a larger video down, but despite the low-resolution capture, the dynamic motions of the cloud are still visible. The stationary aspect raises some questions regarding the unique conditions required to form clouds, and how those conditions can exist in a singular location for an extended period of time without branching out.