

Clouds Moving Fast and Away

Nature Note Cloud Observation By: Lucas Dunsing, and Sarah Burcham
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When we arrived at Alpena Elementary/Middle School, at 7:30am on Thursday morning, November 29th 2022, the sky was dark with clouds and the wind was really blowing. The bare tree limbs were shaking some and you could hear the wind. The air felt warm and wet, but the speed of the wind caused a chill on the air. It felt like it could blow up a rainstorm any minute. Our school is located in NW Arkansas in Boone County and we have a GLOBE weather station set up on the playground. We went outside 3 different times to make cloud observations and to check on the weather.

At 9:00am the wind 4.2mps (9.5mph) from the Southeast. Cloud coverage estimated at 85% using the GLOBE Cloud Chart. Mostly dark, low-level cumulus clouds moving NE. We observed mid-level altocumulus clouds that were not moving as fast. Through holes in the clouds we spotted a commercial jet airliner without a contrail. Barometric pressure 962mb, relative humidity 75%, and the temperature was 16.6°C. At 10:00am we were surprised, because there weren't as many clouds. Wind increased to 7mps, (16mph). We had originally thought a storm was about to happen, but now it looked like everything was moving away to the NE. Clouds were mostly low-level cumulus with some mid-level altocumulus, total cloud coverage was about 65%. The barometric pressure was 962mb, relative humidity was 72% and the temperature was 17.3°C. At 2:00pm, total cloud coverage was now about 10% with a few low-level cumulus clouds and one short lived contrail. The wind had increased to 8mps (18mph). Barometric pressure dropped to 961mb, relative humidity was 47.9% and the temperature was up to 22.2°C.

Studying the local weather patterns and watching the Live Interactive Doppler Radar from KY-3, the local TV station, we have observed that a lot of the severe weather in our area travels from SW to NE. As the Earth heats up evaporating water, heavier clouds form in the afternoon and become heavy and dark on the bottoms. This usually results in thunderstorms somewhere on a path traveling along HWY-144 from Oklahoma City to St. Louis Missouri.

Based on what we observed and what we know from past weather conditions like this, we think it will rain in the areas NE of our location. We could investigate this issue further by conducting more cloud observations later this afternoon. We could also check the Doppler Radar on KY-3 to find out if rain develops to the NE later this afternoon toward St. Louis or West Plains Missouri. We were surprised to see how much the sky changed in such a short period of time. Based on our previous experiences with storms, we thought for sure that the clouds blowing in from the southwest were going to bring us a rainstorm. It was really interesting how the opposite happened, and the clouds just cleared out in a few hours. The next day, we had clear blue skies at school.

11-29-2023 Alpena School Playground
West



9:01am (UTC 15:01)
East



11-29-2023 Alpena School Playground
West



9:58am (UTC 15:58)
East



11-29-2023 Alpena School Playground
West



1:53pm (UTC 19:53)
East

