

Astronaut, Tracy Caldwell Dyson answers the question, "how can you determine cloud height from space?". To answer the question she explains some of the tools that she uses to make cloud height determinations.

Transcript for Cloud Layering 1:

It is difficult to see with a video camera, but when you are looking out the window, and you look off toward the earth at an angle where the atmosphere is in-view there you can see height of clouds, rather than looking straight over head, or in this case right straight in-front of you, that is how we can tell heights of clouds pretty much and their build up.

I am seeing off into the distance there some smooth clouds and some puffy clouds with height and I can see that because I am looking skimming over the atmosphere and I can see the earth below it and I can see which clouds are forming well into the atmosphere and those that appear as though they were closer to the earth tell me that they are low and flat.

But also the sun's angle plays a role in how we can see the formation of the clouds with the structure of the clouds whether it is flat and smooth or puffy, and when the sun is at an angle like this, you can see shadows that are formed on the clouds from the puffy structures.

I don't know how well you can see with this camera view; I will try to zoom in some. See that, there is some shadows off in the distance on the clouds and that tells me that there is some height to the clouds, some buildup to the clouds, they are puffy and areas of the clouds are casting shadows on neighboring clouds