

Explanation of the Term ThickSat to Describe VA Tech Payload on ThinSat-2E

The overall goal of the ThinSat-2 mission, is to orbit 9 spacecraft, collectively holding 30 small experiments, to advance STEM education, and promote space science research and systems engineering for grades 4 – 12 and universities. It includes approximately 65 schools from 15 states and the District of Columbia. Each student team will analyze the data collected by their experiment and submit a report detailing their findings.

One of these student teams is from Virginia Tech (VT). Their imager payload is bigger than some, so the team decided to internally refer to that payload as ThickSat, a parody on the name of the mission.

The ThinSat-2 mission carries a number of horizon and sun sensors, distributed throughout the 9 satellites for attitude determination. NSL, the owner and operator of the mission, obtained a waiver letter from NOAA for operation of these sensors. Independently of that, VT sought and obtained a waiver letter for their payload, referred to in their Initial Contact Form as ThickSat. So, that is why the term Thicksat appears in the NOAA waiver letter that VT obtained. What they refer to as ThickSat, is in the nomenclature of the mission, a university provided payload on ThinSat-2E.