

SMALL SATELLITE MISSIONS SYMPOSIUM (B4)
Access to Space for Small Satellite Missions (5)

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SMALL SATELLITES CURRENT SITUATION FOR ACCESS TO SPACE ORBITS

Abstract

Miniaturized satellites projects are increasing as educational important tools, showing that academic satellites are great opportunities for students to practice their knowledge learnt in class, providing high level professional experience during undergraduation. Another reason to miniaturize satellites is to reduce the project costs. Although launch prices have risen quite substantially across the board of launch providers, CubeSats still forms the most cost-effective independent means of getting a payload into orbit. Miniaturized satellites development activities are constantly increasing along with progress in areas such as: electronics, mechanical and thermal by searching new and advanced technologies. Therefore, CubeSats are ideal for achieving these aims. But the development of a CubeSat project does not end in its construction. One of the most challenging steps of space missions is the lack of launch opportunities. The ticket cost to launch in orbit a CubeSat often can be supported by any academic institution budgets, and usually is much less than any government or military entity would bear to expend. Wait for an opportunity to launch a CubeSat as a secondary or tertiary payload is very frustrating, because of the endless bureaucracy process. This work analyzes the current situation for CubeSats access to space orbits. It presents suggestions for cheaper alternatives to launch CubeSats, such as the NanoSatC-Br, the first Brazilian Cubesat.