

SPACE TRANSPORTATION SOLUTIONS AND INNOVATIONS SYMPOSIUM (D2)
Small Launchers: Concepts and Operations (7)

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BLOOSTAR, THE ENABLER FOR MORE EFFICIENT SATELLITES IN LEO

Abstract

There is a huge boom in the number of microsatellite and nanosatellite concepts and missions in development. The mass efficiency of small satellites has increased significantly in the last decades. Nanosatellites, that used to be considered ideal for the university classroom are now being proposed for interplanetary missions. zero2infinity has designed a launcher to further enhance the trend of increased performance of satellites for the same amount of mass in orbit. Launching from Near Space creates a much more benign launch environment than that encountered with existing or proposed launch systems. This less shaky, gentler, ride, coupled with bloostar's oversized fairing, allows to launch satellites that have very high surface area, with relatively low mass. Satellite designers can, for once, design satellites with geometries, materials and components, that are optimal for LEO operation, but don't need to survive a conventional launch.