

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

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VIRGIN GALACTIC'S DEDICATED LAUNCH VEHICLE FOR SMALL SATELLITES

Abstract

Virgin Galactic, the world's first commercial spaceline, is developing a space transportation service to provide an affordable, dedicated ride to orbit for smaller payloads. No longer will small satellite users be forced to make a choice between the limitations of flight as a secondary payload or paying dramatically more for a dedicated launch vehicle, or dealing with the added complexity associated with export control requirements and international travel to distant launch sites. We are leveraging our background as the world's first commercial spaceline, specifically the development of the SpaceShipTwo suborbital passenger and cargo system and the WhiteKnightTwo carrier aircraft. Virgin Galactic's satellite launch vehicle is a two stage, liquid propulsion (LOX/RP) rocket released at a high altitude by WhiteKnightTwo. This horizontal launch approach allows operations from a variety of locations, allowing customers to select various launch azimuths and increasing available orbital launch windows. This presentation will summarize technical progress made on Virgin Galactic's system in the past year.