

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

Author: Mr. William Pomerantz  
Virgin Galactic L.L.C, United States

Mr. A. C. Charania  
Virgin Galactic L.L.C, United States

Mr. Barry Matsumori  
Virgin Galactic L.L.C, United States

Ms. Sirisha Bandla  
Virgin Galactic L.L.C, United States

Mr. Steve Isakowitz  
Virgin Galactic L.L.C, United States

LAUNCHERONE: 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.

Virgin Galactic's satellite launch vehicle, LauncherOne, is a two stage, air-launched liquid propulsion (LOX/RP) rocket. This system is designed to conduct 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.