## SPACE TRANSPORTATION SOLUTIONS AND INNOVATIONS SYMPOSIUM (D2)

Small Launchers: Concepts and Operations (7)

Author: Mr. William Pomerantz Virgin Galactic L.L.C, United States, william.pomerantz@virgingalactic.com

Mr. A. C. Charania

Virgin Galactic L.L.C, United States, AC.Charania@virgingalactic.com

Mr. Barry Matsumori

Virgin Galactic L.L.C, United States, barry.matsumori@virgingalactic.com

Ms. Sirisha Bandla

Virgin Galactic L.L.C, United States, sirisha.bandla@virgingalactic.com

Mr. Steve Isakowitz

Virgin Galactic L.L.C, United States, steve.isakowitz@virgingalactic.com

## 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.