

20th SYMPOSIUM ON SMALL SATELLITE MISSIONS (B4)
Access to Space for Small Satellite Missions (5)

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LESSONS LEARNED FOR FUTURE SECONDARY LAUNCHES

Abstract

Since the termination of the SpaceX Falcon 1 program and absent an inexpensive small payload launch vehicle, opportunities for access to space for nanosat and microsat payloads have been extremely limited. In contrast, the number of small satellite payloads (both individual and constellations) has grown rapidly as entrepreneurs have realized both the nearly unlimited capabilities and robust nature of this new inexpensive class of satellites. To address this rapidly growing market, Spaceflight, Inc. (Spaceflight) offers frequent access to space through commercially priced launch services featuring standardized interfaces, and well understood integration processes. To maximize flight opportunities, Spaceflight has cultivated strong relationships with numerous launch service providers based in the United States and internationally. Spaceflight has contracted for the launch of over twenty spacecraft, and is currently in the final stages of integration for eight satellites on four different launch vehicles. The first scheduled launch will take place in Q2 2013.

This paper summarizes lessons learned in the course of secondary payload integration and launch experiences. Furthermore, this paper provides an update on current secondary payload accommodation solutions, a development status of the Spaceflight Secondary Payload System, the SHERPA in-space tug, and options for future secondary payload manifesting.