

21st IAA SYMPOSIUM ON SMALL SATELLITE MISSIONS (B4)
Generic Technologies for Nano/Pico Platforms (6B)

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NASA'S SMALL SPACECRAFT TECHNOLOGY PROGRAM

Abstract

The Small Spacecraft Technology Program (SSTP) recaps its 2013 and early 2014 Phonesat mission results and discusses the upcoming launch of the Edison Demonstration of Smallsat Networks (EDSN) mission – a networked constellation of eight 1.5U cubesats. Initial results from the first year's Smallsat Technology Partnerships investigations will also be provided. SSTP looks to the launch of its three flight demonstration projects in the 2015-2017 timeframe and offers a discussion of the current state of development of the Integrated Solar Array and Reflectarray Antenna (ISARA) for High Bandwidth Cubesats; Cubesat Proximity Operations Demonstration (CPOD); and Optical Communications and Sensor Demonstration (OCSD) missions. The current release of the Launch Portal and the Small Spacecraft Technology State of the Art study will be discussed and made available for conference participants to view and contribute content or ideas.

The SSTP is one of nine major programs – and one of three flight programs - managed within the NASA Space Technology Mission Directorate. The program consists of four elements intended to encompass the development and demonstration of a range of technologies and capabilities and to engage the talents of the broad community of researchers and technologists from government, industry and academia. The SSTP develops, matures, and demonstrates technologies to enhance and expand the capabilities of small spacecraft with a particular focus on communications, propulsion, pointing, power, autonomous operations, and unique space architectures and applications.