



# STPSat-1

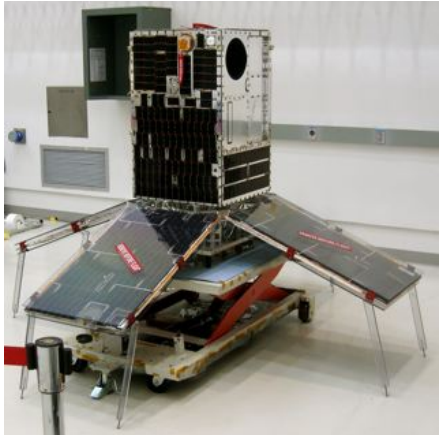
STPSat-1 was successfully launched on March 8<sup>th</sup> 2007 on an Atlas V from Cape Canaveral and is operating successfully on-orbit.

STPSat-1 is the first microsatellite built to specifically exploit the new ESPA (EELV Secondary Payload Adaptor) multi-mission launch capability.

ESPA is a ring placed between a launch vehicle upper stage and primary payload which mechanically supports small secondary spacecraft. It provides launch accommodations for up to six small satellites.

STPSat-1 supports the Space Test Program's (STP) mission to provide reliable access to space for DoD-sponsored experiments. The space vehicle hosts two complex experiments that will gather important science data and demonstrate new technologies for future space applications.

AeroAstro developed the low-earth orbiting spacecraft under contract to the Department of Defense (DoD) Space Test Program (STP) headquartered at Kirtland Air Force Base, New Mexico.



STPSat-1 in a deployed configuration.



AeroAstro engineers integrate STPSat-1 onto the ESPA ring.



STPSat-1 On-Orbit (artist rendering).

# Specifications

Stowed Dimensions: 60.8 cm x 60.8 cm x 96.4 cm

Launch Vehicle: Atlas V ESPA

Space Vehicle Mass: 156.5 kg

Total Payload Mass: 57.8 kg (NTE)

OA Power Generation:  $\approx$  160 WOA

Total Payload Power: 60 WOA

Attitude Control:  $0.1^\circ$  ( $3\sigma$ )

Attitude Knowledge:  $0.03^\circ$  ( $3\sigma$ )

Uplink CMD Rate: 2 kbps

Downlink TLM Rate: 1 Mbps (no ranging), 32 kbps (w/  
PRN ranging)

Onboard Data Storage: 256 MB (both code and data)



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