Busek's Micro Thrusters Deployed on Orbit

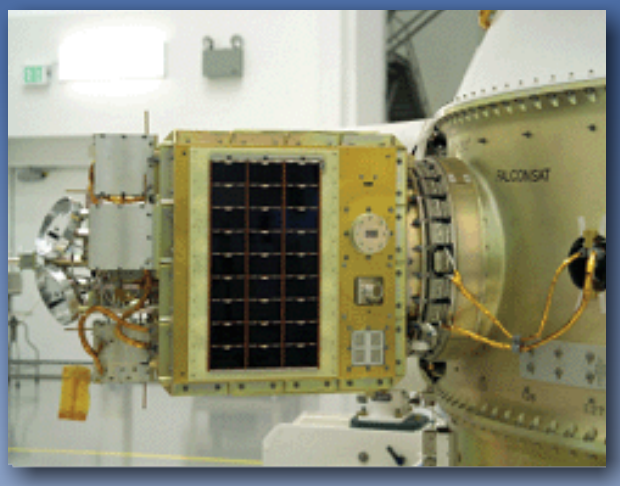
BUSEK
Space Propulsion and Systems

Press Release

Natick, Massachusetts—March 13, 2007—

Busek Co. Inc., the leading source of satellite electric propulsion, announces the recent in-orbit demonstration of its solid fueled micro propulsion attitude control system (MPACS). Four Busek MPACS were integrated aboard the Air Force Academy's FalconSat-3 mission, which launched March 8th, 2007 at 10:10 PM (EST) from Cape Canaveral AFS, FL, on an Atlas V launch vehicle. The Busek MPACS are integrated micro-pulsed plasma thrusters (microPPTs) are the first US-designed and built coaxial microPPTs in orbit, and serve as a demonstration of advanced US electric propulsion technology. The launch and operation of the MPACS is Busek's second in-orbit technology demonstration within the past six months; Busek's BHT-200 Hall Effect Thruster was launched in December 2006 and continues to operate regularly.

MicroPPTs are designed to provide precision propulsive attitude control on small (< 100kg) satellites, and are highly valuable on missions which require precise satellite positioning (e.g., high-resolution imaging). MicroPPTs are being examined for a potential role as the primary propulsion for nano satellites (25kg) and nano satellite constellations. MPACS uses a solid inert propellant that provides for precise impulse control. The MicroPPT was originally developed by the Air Force Research Laboratory Propulsion Directorate (AFRL/PR) at Edwards AFB. AFRL funded the flight development through a Small Business Innovation Research (SBIR) contract. MPACS was launched under direction of the DoD Space Test Program.



Busek MPACS (small metallic cubes on the left side of the image) and FalconSat-3 prior to launch. Photo courtesy of Col. Timothy Lawrence, USAFA.

The assembly and operational testing of FalconSat-3 is performed by USAF Academy Cadets as part of the USAF Academy's Space Systems Research Center (USAFA SSRC). Directed by Aerospace Professor Lt. Col. Tim Lawrence, the Academy's Space System Research Center empowers cadets to design, build, and fly satellites as part of Department of Defense research efforts.

Busek Co. Inc. specializes in providing complete electric space propulsion systems including but not limited to a wide range of thrusters, propellant management systems, power processing units and digital control interface units. Busek provides analytical, computational, experimental and product services to government and industry.

Busek Co. Inc.
11 Tech Circle, Natick, MA 01760 | 508.655.5565 | info@busek.com

BUSEK
Space Propulsion and Systems