



News Release

Defense Advanced Research Projects Agency

*"Providing technological innovation for
national security for over 40 years."*

3701 North Fairfax Drive
Arlington, VA 22203-1714

IMMEDIATE RELEASE

December 15, 2005

AIR-BREATHING, SCRAMJET-POWERED VEHICLE TESTED

The joint Defense Advanced Research Projects Agency (DARPA)/Office of Naval Research Freeflight Atmospheric Scramjet Test Technique (FASTT) project has conducted the world's first flight of an air-breathing, scramjet-powered vehicle using liquid hydrocarbon fuel. The successful test flight also demonstrated the feasibility of using sounding rockets as a low-cost approach to hypersonic flight testing.

FASTT is an activity within the DARPA/Navy Hypersonic Flight Demonstration (HyFly) program. The FASTT vehicle, a subscale derivative of the dual combustor ramjet, was launched December 10 at 6:30 a.m. (EST) from the NASA Wallops Flight Facility, Wallops Island, Va. It was boosted by a two-stage, Terrier-Orion unguided solid-rocket system. Following separation from the booster, the vehicle jettisoned the inlet shroud and the scramjet engine ignited, propelling the vehicle to speeds of 5,300 feet per second, at an altitude of 63,000 feet. Fueled by JP-10, a hydrocarbon fuel, the vehicle flew for over 15 seconds under scramjet power, before continuing on to splashdown into the Atlantic Ocean.

This test flight was the culmination of FASTT activities that were initiated in 2002 and that included design and ground-testing of the flight vehicle, boost vehicle integration, and two successful boost-to-separation flights that demonstrated vehicle performance from launch through stage separation. Alliant Techsystems Inc. GASL, Ronkonkoma, N.Y., led the contractor team for the FASST tests, and developed and integrated the scramjet vehicle. Other members of the team included: DTI Associates, Arlington, Va., Terrier-Orion vehicle design and integration; NASA Wallops Flight Facility, flight test support; Johns Hopkins Applied Physics Laboratory, Baltimore, Md., technical support.

-END-

Media with questions, please contact Jan Walker, (703) 696-2404, or [jan.walker\[at\]darpa.mil](mailto:jan.walker[at]darpa.mil).