



News Release

Defense Advanced Research Projects Agency

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IMMEDIATE RELEASE

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System F6 to Exploit Benefits of Democratization of Innovation

Program's path forward expected to energize academic, small business and non-traditional performer communities

The Defense Advanced Research Projects Agency (DARPA) is re-focusing its System F6 (Future, Fast, Flexible, Fractionated, Free-Flying Spacecraft United by Information Exchange) fractionated spacecraft demonstrator program to emphasize development of an open and ubiquitous space architecture and an associated set of open standards. The fractionated spacecraft concept replaces large, monolithic space assets with clusters of smaller, wirelessly-interconnected modules that share resources to create, in effect, a “virtual satellite.”

“Democratization of the innovation process for System F6 promotes the emergence of an open community of researchers and developers around the fractionated architecture construct,” said Kaigham Gabriel, DARPA deputy director. “DARPA will compete the individual technical components of the System F6 separately so best in class performers may be selected to integrate through a collaborative development of standards and open source software.”

Paul Eremenko, System F6 program manager, believes refocusing the program will introduce new perspectives and approaches to achieve program goals “An explicit program goal is to enable multiple payloads supplied by different agencies, services or even countries to share common infrastructure at multiple levels of security. It is a unique architectural approach to enhancing the adaptability, survivability and responsiveness of future space assets—and really changing the dynamics of the space industry by lowering the barrier to entry.”

The program's emphasis going forward will be on the development of real-time, fault-tolerant resource sharing over wireless cross-links; algorithms for safe and agile multi-body cluster flight; persistent broadband communications between low earth orbit (LEO) spacecraft and the ground; and a robust and scalable multi-level information assurance architecture. The System F6 program will culminate in an on-orbit demonstration in 2014. In this demo, DARPA aims to prove the feasibility of a shared on-orbit infrastructure, wireless spacecraft component replacement, persistent broadband communications from low earth orbit and a defensive cluster scatter/re-gather capability. DARPA plans to team with other agencies and international partners to develop payloads and for one or more launches for the demo mission.

DARPA will conduct a briefing to the potential proposer community at 11 a.m. EDT on Thursday, September 30, 2010 via live webcast with interactive question capability. More information regarding this briefing may be found by visiting www.fbo.gov under DARPA-SN-10-66.

The Broad Agency Announcement will be posted on FedBizOpps, <http://www.fbo.gov>, and on the DARPA/TTO website, <http://www.darpa.mil/tto/solicitations/index.html>.

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