

FY 08 New Start Project Summaries

Combat Autonomous Mobility System (CAMS) — Demonstrates integrated, ground-based, autonomous technologies to leverage current special operations forces (SOF) manpower. Uses mature sub-components to extend intelligence, surveillance and reconnaissance range and targeting coverage, to improve joint fires support and multiple command and control unmanned ground and air systems, and to provide automated support for multiple SOF mission profiles.

Communications AirBorne Layer Expansion (CABLE) — Demonstrates information exchange at the tactical edge. Uses a backbone network for internet protocol (IP)-based, high-capacity data transfer, secure gateways to interconnect data links, voice systems, and net-centric IP-based networks. Includes an information broker that organizes, transforms, and shares knowledge across various data and voice networks. Uses an application platform to host enterprise-wide services, such as a common tactical picture service or chat service.

Collaborative On-Line Reconnaissance Provider/Operationally Responsive Attack Link (CORPORAL) — Demonstrates decentralized data shared openly across systems that connects airborne and ground-based tactical systems. Greatly improves/expands target results communication range and availability so that critical data/information can be shared with other war fighters for collaboration and visibility to higher authorities. Provides ground forces with a beyond-line-of-sight connectivity to Intelligence, Surveillance and Reconnaissance resources.

Hard Target Void-Sensing (HTVS) Fuze — Demonstrates a fuze that is: 1) capable of functioning in greater than 10,000 pounds per-square-inch concrete, 2) void sensing, and 3) cockpit programmable. Fuze designed for reducibility and reliability and compatible with the BLU-109/113/122 Warheads.

Joint Force Protection Advanced Security System (JFPASS) — Demonstrates an integrated system-of-systems to protect expeditionary military installations, incorporates comprehensive situational awareness for force protection providers, reduces manning due to systems integration and robotics, and reduces logistics cost. Functional areas for installation protection addressed include: perimeter security, chemical-biological-radiological defense, access control, non-intrusive inspection, and waterside security.

Multi-Function Threat Detector (MFTD) — Demonstrates an expanded aircraft missile warning system to include Hostile Fire Warning from man-portable air defense systems, rocket-propelled grenade, unguided rockets and incoming surface-to-air fire ranging from small arms to anti-aircraft artillery. Provides an infrared micro-lens optics package that provides simultaneous spatial and temporal co-registration of spectral images.

Shadow Harvest (classified) — Demonstrates the C-130 aircraft as a rapidly configurable multi-sensor platform that provides new existing/emerging sensors and processing techniques. Enables on-board data processing and exploitation that will lead to new concepts to accurately and efficiently find obscured target enemy assets.

Additional FY 07 Project Summaries

Global Observer (GO) — Demonstrates a long-endurance, liquid hydrogen-powered unmanned aerial vehicle. Flies extremely long endurance (objective of 7 days on station) with a moderately sized payload capacity at altitudes greater than 60,000 feet. Persistent surveillance capability enables operations from garrisoned locations, reducing the number of forward bases required for world-wide support. May support global, persistent, and synchronized intelligence, surveillance, and reconnaissance and targeting, and broadband communications into denied areas.

Joint Surface Warfare (JSuW) — Leverages maturing weapon data link network technologies to demonstrate the integration of multiple Intelligence, Surveillance, and Reconnaissance (ISR) and launch platforms with existing stand-off weapons. Allows interchangeable ISR assets to provide initial targeting data and in-flight target updates for multiple weapons. Provides multiple, comprehensive joint kill chain threads to the Combatant Commander, significantly increasing operational agility. Increases probability of target kill in adverse weather conditions and at extended ranges, while minimizing launch platform threat exposure.

Zephyr — Demonstrates a solar-powered unmanned aerial vehicle to meet urgent operational requirements for USCENTCOM and USEUCOM. Provides low-cost persistent surveillance and communications relay, flying continuous operations for periods of months at a time using solar power plus batteries for continual day/night operations. Sensors enable ground radio communications links over hundreds of square miles and surveillance of logistics routes and ground threats. Hand-launched UAV requires no formal infrastructure and little manpower to operate and provides cross-theatre benefits to all U.S. Forces.