News Release

Defense Advanced Research Projects Agency

"Providing technological innovation for national security for almost 50 years."

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DARPA RECOGNIZES SIGNIFICANT ACHIEVEMENTS FOR 2006

The Defense Advanced Research Projects Agency (DARPA) recognized 21 individuals for their technical innovations and three offices for their outstanding support during 2006. The awards were presented at DARPA's second annual awards ceremony, December 14.

Individuals and offices were recognized for their achievements through the presentation of two types of awards: awards for programs that have achieved a significant technology innovation and awards to individuals and offices that have a portfolio of programs that represent significant technology innovation or who have provided outstanding support to DARPA. All winners received plaques commemorating their achievements.

Below is the list of individuals and achievements recognized during the awards ceremony:

- Dr. Leo Christodoulou, program manager, Defense Sciences Office - Hardwire Armor and WASP micro air vehicle programs
- Dave Gunning, Dr. Larry Jackel, Dr. Dan Oblinger, and Dr. Tom Wagner, program managers, Information Processing Technology Office - Cognitive Computing Systems programs
- Roger Hall and Dr. Owen Brown, program managers, Tactical Technology Office - Microsatellite Technology Experiment program
- Dr. Amit Lal, program manager, Microsystems Technology Office - Chip-Scale Atomic Clock program
- Lt. Col. Jim McCormick, USAF, program manager, Tactical Technology Office - Autonomous Air-to-Air Refueling Demonstration
- Thomas McCreery, program manager, Strategic Technology Office - Handheld Isothermal Silver Standard Sensor
- Dr. Martin Stickley, program manager, Microsystems Technology Office - Super High Efficiency Diodes program
- Dr. Larry Stotts, deputy director, Strategic Technology Office - Future Combat Systems Communications program
- Lt. Col. Stephen Waller, USAF, program manager, Information Exploitation Office - Tactical Targeting Network Technology program
- Dr. Karen Wood, program manager, Tactical Technology Office - Boomerang program

- Don Woodbury, program manager, Tactical Technology Office - Apache Helicopter Protection Kit
- Dr. Valerie Browning, program manager, Defense Sciences Office - portfolio of programs in applied and basic physical science
- Dr. Ralph Chatham, program manager, Defense Sciences Office - portfolio of programs for military training
- Dr. Douglas Kirkpatrick, program manager, Strategic Technology Office - portfolio of programs in solid-state physics, human vision, chemistry, and biology
- Dr. Joseph Olive, program manager, Information Processing Technology Office - portfolio of programs in automated foreign language processing
- Dr. Jagdeep Shah, program manager, Microsystems Technology Office - portfolio of programs in electronics and photonics
- Dr. Stephen Taylor, program manager, Strategic Technology Office - portfolio of programs for new joint capabilities
- DARPA Comptroller Office - new business processes
- DARPA Contracts Management Office - extraordinary number of contractual actions
- DARPA Office of Management Operations - security for the Microsatellite Technology Experiment program

Details of all of these achievements are attached.

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

DETAILS OF DARPA AWARDS

Dr. Leo Christodoulou, program manager, Defense Sciences Office, was recognized for his Hardwire Armor program, which is exploiting a unique, high-strength steel/polymer composite hybrid configuration to provide improved military vehicle armor protection at a significantly reduced weight compared to other technologies and at a cost comparable to that of traditional armor. This approach to armor and manufacturing will change armor production from a labor-intensive small-quantity process to a precise, high-throughput operation.

Dr. Christodoulou was also recognized for the WASP micro air vehicle program, which is revolutionizing intelligence support for our troops. Weighing less than a pound, WASP is an ultra small unmanned aerial vehicle that provides important overhead imagery and can fly nearly three times longer than other, comparably equipped vehicles of similar size. WASP has been deployed with the U.S. Navy and Marine Corps; field reports indicate it enhances the ability to locate and track the enemy and is directly responsible for saving American lives.

Dave Gunning, Dr. Larry Jackel, Dr. Dan Oblinger, and Dr. Tom Wagner, program managers in the Information Processing Technology Office, were recognized for their Cognitive Computing Systems programs. These programs have realized successes in an enduring, personalized, office assistant that learns; learning capabilities for autonomous vehicles and robots navigating in complex terrain; revolutionary approaches to accelerated learning; and coordination assistants for military command and control. Each of these efforts represents fundamentally new information technology capabilities that will reduce the number of people required to perform important Department of Defense missions.

Roger Hall and Dr. Owen Brown, program managers in the Tactical Technology Office, were recognized for the Microsatellite Technology Experiment program, which investigated and developed, in record time, innovative technologies for microsatellites. In partnership with the U.S. Air Force and the U.S. Navy, the program successfully launched microsatellites in June 2006 and is conducting on-orbit demonstrations of technologies important to the development of new space capabilities for the Department of Defense.

Dr. Amit Lal, program manager, Microsystems Technology Office, was recognized for the Chip-Scale Atomic Clock program, which has demonstrated a complete atomic clock in 10 cubic centimeters of volume that needs only 90 milliwatts of power. Today's networks rely on the clock signal supplied from global positioning system (GPS) satellites for operations, and the Chip-Scale Atomic Clock will provide the signal when the GPS signal is lost. This technology ensures the networks our forces need to operate will be there even if the adversary denies the GPS signal.

Lt. Col. Jim McCormick, USAF, program manager, Tactical Technology Office, was recognized for his Autonomous Air-to-Air Refueling Demonstration, which developed technology that enabled the first ever autonomous air-to-air refueling capabilities of aircraft. The technology was demonstrated successfully in 2006 using F/A-18s and air refueling tankers over Edwards Air Force Base, Calif. This capability can improve the safety of manned airborne refueling operations, but more importantly, it opens new opportunities to enable the development of long-endurance, unmanned aerial vehicles.

Thomas McCreery, program manager, Strategic Technology Office, was recognized for the Handheld Isothermal Silver Standard Sensor, which is developing a handheld sensor capable of accurately identifying biological weapon agents such as bacteria, viruses, and toxins in the field and avoiding the time delays of sending the agents to a laboratory for analysis. The program is on track for transition to the Defense Threat Reduction Agency.

Dr. Martin Stickley, program manager, Microsystems Technology Office, was recognized for his Super High Efficiency Diodes program, which is significantly improving efficiency in the generation of light from stacks of semiconductor diode laser bars. The innovative technology will be beneficial to a wide variety of military systems, including solid-state lasers, tactical weapons, illuminators, optical countermeasures, designators, foliage-penetrating radar, multispectral scene projection, precision fusing for detonation, laser radar interceptor, three-dimensional imaging radar for unmanned aerial vehicles, low-cost chemical and biological detectors, and underwater imaging and mine detection.

Dr. Larry Stotts, deputy director, Strategic Technology Office, was recognized for the Future Combat Systems Communications program, which has revolutionized communications at the tactical level by enabling, for the first time, interoperability among different radios and communication devices via a network. Using the technology developed in the program, units are now able to immediately share important information and gain a decisive edge in any battlefield.

Lt. Col. Stephen Waller, USAF, program manager, Information Exploitation Office, was recognized for the Tactical Targeting Network Technology program, which is developing rapidly reconfigurable, affordable, robust, and interoperable wireless technology to provide enhanced network capabilities for tactical aircraft. The developed technology will enable the networking of commanders, shooters, and sensors with minimal operational overhead and at very low cost. The U.S. Air Force and Navy plan to install the technology in their aircraft.

Dr. Karen Wood, program manager, Tactical Technology Office, was recognized for the Boomerang program, which developed an affordable and reliable acoustic gunshot detection system that detects shots fired at a moving vehicle or position, determines the direction from where the shot was fired, and displays the information. The Boomerang program has successfully transitioned to the U.S. Marine Corps and is saving lives in Iraq.

Don Woodbury, program manager, Tactical Technology Office, was recognized for the Apache Helicopter Protection Kit, which significantly reduces the vulnerability of the Apache helicopters to man-portable air defense system threats. The technology was quickly developed, tested, and deployed to Iraq, and is being used to save the lives of our men and women in uniform.

Dr. Valerie Browning, program manager, Defense Sciences Office, was recognized for her portfolio of programs that represent significant accomplishments in both the applied and basic physical science areas. Under her outstanding leadership as program manager, the Palm Power, Negative Index Materials, and Bio-Magnetic Interfacing Concepts programs achieved technical breakthroughs in areas others believed were not possible.

Dr. Ralph Chatham, program manager, Defense Sciences Office, was recognized for his portfolio of programs that transform military training and better prepare troops for overseas deployments. The programs combine human-tutor interactions, online computer games, and existing Service and Joint training systems into a self-sustaining architecture, allowing continuous, on-demand training anywhere, anytime, for everyone. The technology recently transitioned to the U.S. Army and contributes substantially to the performance of U.S. missions and the safety of U.S. warfighters.

Dr. Douglas Kirkpatrick, program manager, Strategic Technology Office, was recognized for his portfolio of programs in solid-state physics, human vision, chemistry, and biology. Under his outstanding leadership as program manager, the High Efficiency Distributed Lighting program delivered new lighting capabilities to our combat forces, the Very High Efficiency Solar Cell program will reduce or eliminate the need for batteries, and the Bio-Fuels program will use crops to supply JP-8 for military aircraft.

Dr. Joseph Olive, program manager, Information Processing Technology Office, was recognized for his portfolio of programs that represent significant accomplishments in the area of automated foreign language processing. His outstanding efforts led to the deployment of intermediate language translation systems to the joint forces and to advances in translation algorithms that will reduce the number of linguists required for joint operations.

Dr. Jagdeep Shah, program manager, Microsystems Technology Office, was recognized for his portfolio of programs that represent significant accomplishments in the areas of electronics and photonics. Under his outstanding leadership as program manager, the Data in the Optical Domain Network program developed components required for an all-optical data router, and the Electronic and Photonic Integrated Circuit program developed new capabilities for data handling on high performance integrated circuits.

Dr. Stephen Taylor, program manager, Strategic Technology Office, was recognized for his portfolio of programs that represent important new capabilities for the joint forces. Under his outstanding leadership as program manager, the programs' successes have convinced several operational partners to commit financial resources and to sign memoranda of agreement to accelerate technology transition.

The DARPA Comptroller Office was recognized for implementing new business processes that led to improvements in the Program Objective Memorandum process, reduction of acquisition lead times, and rapid program approval Document completion. Partnering with the Business Transformation Agency, the Comptroller Office developed a new system to accurately track and quickly access financial records and produce auditable statements.

The DARPA Contracts Management Office was recognized for successfully awarding 936 contractual actions valued at more than $781 million. The contracts were completed efficiently and expeditiously and directly supported important research programs in DARPA's technical offices, including those that ensured the rapid transition of technology to support deployed forces in Iraq and Afghanistan.

The DARPA Office of Management Operations was recognized for providing security for the June 2006 launch of microsatellites under the Microsatellite Technology Experiment program.

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