Secretary of the Navy Recognizes Top Naval Innovators

Office of the Chief of Information (FEB. 10, 2016)

Secretary of the Navy (SECNAV) Ray Mabus announced the winners and finalists of the SECNAV Innovation Awards for 2015 yesterday, recognizing the top innovators within the Department of the Navy (DON).

Winners of the Innovation Awards may receive an innovation fellowship, specialized training, choice of their next duty station, or a cash award up to $5,000.

The SECNAV Innovation Awards Program, administered by the DON Office of Strategy and Innovation, recognizes DON military and civilian individuals or teams who have made significant innovative achievements in 2015.

"Every day, across the Department of the Navy, our talented sailors, Marines, and civilians are creating innovative solutions to our most complex challenges," said Mabus. "The accomplishments of those recognized through this year's innovation awards are truly remarkable and should serve as inspiration for the entire workforce to continue to think boldly to solve our most challenging problems."

Receiving the SECNAV Innovation Award is a significant accomplishment and a testament to the outstanding ingenuity and professionalism of the DON personnel, added Mabus.

The DON recognized innovators in program categories such as Robotics/Autonomous Systems, Data Analytics, Additive Manufacturing, Innovation Leadership, Innovation Scholar, Enlisted Innovator, Innovation Catalyst, and Outside the Box.

This year's award recipients included submissions on electronic warfare battle management software, web-based SONAR tactical decision aids, additive manufacturing for advanced liquid propulsion and other applications, underwater wireless energy transfer systems, and real-time acoustic imaging.

"We received over 300 award submissions from innovators at all levels across the Navy and Marine Corps," said Scott Hargate, the awards coordinator. "The judging was extremely difficult and everyone was impressed by the amazing ideas and strong initiative in the Department of the Navy's workforce. The work of these individuals and teams represents a cultural change in the way we think through and solve challenges in our organization. Hopefully, this recognition inspires the next generation of innovators."

The Innovation Awards Program is part of a larger effort to foster idea development and incentivize innovators across the DON to creatively develop solutions and catalyze future innovation by providing cash awards and professional development opportunities.

The winners are:

- Robotics/Autonomous Systems Category: Mayer Nelson, Alex Askari, Michael Knauff, Kevin Lin, Willard Morris, Robert Stark, William Gottwald IV, Crystal Lutkenhouse, Thomas Jiang, Steve Miller, Tristan Wolfe from the Naval Surface Warfare Center, Carderock Division (NSWCCD)
- Data Analytics Category: Philip W. Gillett and Christian M. Sarofeen from Naval Surface Warfare Center, Carderock Division (NSWCCD)
- Additive Manufacturing Category: Denise Orthner, Kamal Bhakta, Nicholas Cavaliere, Ian Gallagher, Steven Orciuolo, Sensor from Naval Air Systems Command
- Innovation Leadership Category: Cmdr. Jeffrey L. Heames, commanding officer, USS Preble (DDG 88)
- Innovation Scholar (PME) Category: Lt. Brendan Geoghegan from the Naval Postgraduate School
- Innovation Scholar (Midshipmen) Category: Midshipman Annie McDonald from Navy ROTC Unit, The George Washington University
- Enlisted Innovator Category: Chief Sonar Technician Benjamin A. Lebron from USS Fitzgerald (DDG 62)
- Innovation Catalyst Category: Keith Archbold, Allan Weidenheimer, Jeremy Hyland, Robert Alvey, David Reed, Mitch McCrory Department of Energy (DOE), Alex Roesler DOE, John Mulder DOE, Phil Turner DOE, Lon Dawson DOE from Naval Undersea Warfare Center Division, Keyport; Naval Surface Warfare Center Philadelphia Division; and Department of Energy partners at Sandia National Laboratories
- Outside the Box Category: Daniel M. Robinson from the Naval Research Laboratory

For more information on the SECNAV Innovation Awards winners and outstanding submissions, visit http://www.secnav.navy.mil/innovation/Pages/Home.aspx. For more news, visit http://www.navy.mil.

AIAA Singles Out AFRL Researchers for 2016 Fellows Honor

AIR FORCE RESEARCH LABORATORY (FEB. 11, 2016)

WRIGHT-PATTERSON AIR FORCE BASE, Ohio—Three researchers from the Air Force Research Laboratory have been named American Institute of Aeronautics and Astronautics Fellows for 2016.

The three new Fellows are:

- Dr. Russell M. Cummings, of AFRL's European Office of Aerospace Research and Development and the U.S. Air Force Academy, is being honored for his work in simulating maneuvering aircraft through the use of reduced order modeling and computational fluid dynamics, and for his contributions to undergraduate education as an author and educator in the field of computational aerodynamics.
- Dr. Ajit K. Roy, of AFRL's Materials and Manufacturing Directorate, is internationally recognized in the aerospace science community for his outstanding scientific contributions and technology leadership in complex (structural, thermal, and electronic) materials, through advancing aerospace science and technology transition.
- Dr. James Gord, of AFRL's Aerospace Systems Directorate, has made advancements in high-power, high-repetition-rate burst-mode laser diagnostics systems, applying them to turbulent combustion and high-speed flows. His research has produced myriad fundamental technology breakthroughs in burst-mode laser measurement systems that enable scientists and engineers to better understand the performance of real-world air breathing and rocket engines.

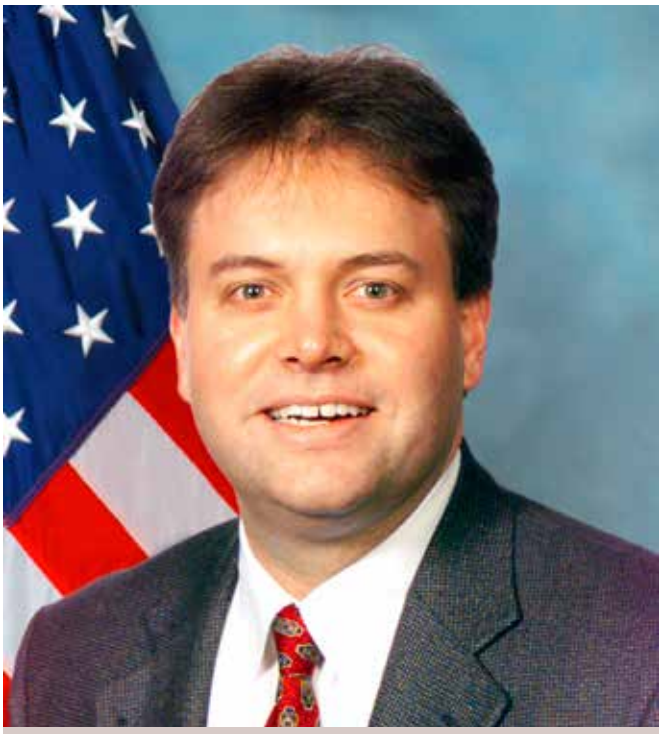
AIAA is the world's largest aerospace professional society. The designation of Fellow is given to those judged to have made notable and valuable contributions to the aerospace arts, sciences, or technology. Only one per every 1000 voting AIAA members are elected each year, meaning only 3 percent of AIAA members achieve the distinction of Fellow.

In 1933, Orville Wright became AIAA's first Honorary Fellow. Since then, more than 1,800 people have achieved the distinguished honor as an AIAA Honorary Fellow or AIAA Fellow, and they are recognized as some of the most respected names in the aerospace industry.

The three AFRL scientists were uniformly humbled by the prestigious designation, which will be officially bestowed at the AIAA Fellows Dinner, held June 2016 in Washington, D.C.

"It is truly an unexpected honor and a privilege to join the ranks of the AIAA Fellows here in AFRL and throughout the S&T community, many of whom I have idolized over the course of my career," said Gord. "I don't feel worthy, but I couldn't be happier."

Roy concurred. "In view of the distinguished list of AIAA Fellows, I'm truly humbled by the recognition," he said. "I have had the privilege of working with a large number of very bright people over the years—my research team members,



Dr. Jim Gord, of the Air Force Research Laboratory's Aerospace Systems Directorate was named as a 2016 American Institute of Aeronautics and Astronautics Fellow.

DoD photo

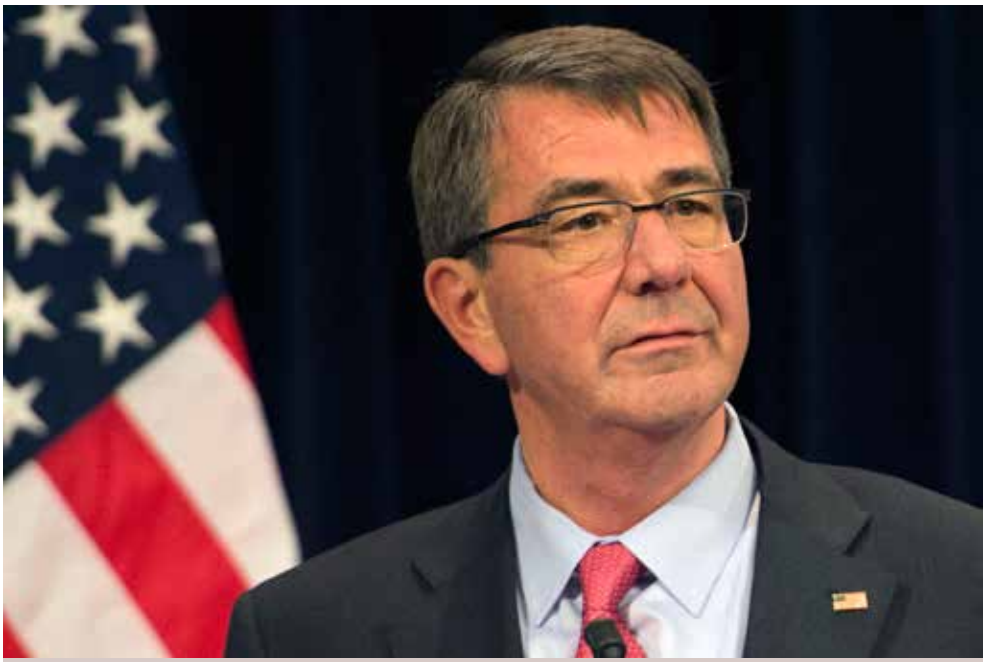
AFRL colleagues, and collaborators. I'm immensely grateful to them for this accomplishment. Furthermore, the unconditional support from AFRL leadership and stimulating work culture at AFRL makes AFRL a rewarding place to grow professionally and certainly made this recognition possible. I'm proud to be a part of AFRL."

Cummings added, "When I look at the list of previous AIAA Fellows, I am greatly humbled and truly honored to be included in the same company. I am also excited that three of the 24 AIAA Fellows for 2016 are associated with the Air Force Research Laboratory, which is a testament to the dedication and capabilities of the USAF in supplying the resources and facilities for researchers to perform world-class work."

Carter: Premier Acquisition Award Supports World's Best Fighting Force (Feb. 24, 2016)

Cheryl Pellerin

WASHINGTON—Three teams that have received David Packard Excellence in Acquisition awards are helping ensure that future defense secretaries will continue to lead the finest fighting force the world has ever known, Defense Secretary Ash Carter said here today.



Defense Secretary Ash Carter speaks with reporters at NATO headquarters in Brussels, Feb. 11, 2016.
DoD photo by Air Force Senior Master Sgt. Adrian Cadiz

At the same ceremony, hosted by Carter and Frank Kendall, undersecretary of defense for acquisition, technology and logistics, two other teams received the department's Should-Cost and Innovation Award.

The Packard award is the department's premier acquisition award that recognizes organizations and teams whose programs have achieved acquisition excellence, efficiency, and productivity.

The award was first given in 1997 in honor of David Packard, a deputy defense secretary during the Nixon administration, and co-founder and chairman of the Hewlett-Packard Co., a global information technology company based in Palo Alto, California, in an area now known as Silicon Valley.

Better Buying Power

Carter, who worked with Packard, said that when the electrical engineer joined the Defense Department, "he brought with him not only management expertise and creative ideas about cost savings, but also the culture of innovation from which he had come. That spirit is what underpinned our Better Buying Power thinking from the very beginning."

In 2010, when he was undersecretary of acquisition, technology and logistics, Carter and Kendall, at the time AT&L principal deputy undersecretary, launched Better Buying Power to improve the department's acquisition process. The initiative is now in its third iteration.

Excellence in Acquisition

"Our 2015 Packard Award recipients have done some pretty amazing things," Carter said, and described the teams' achievements.

The Space-Based Infrared System Geostationary Earth Orbit 5/6 team saved more than $1 billion in purchasing and modernizing satellites that are critical to U.S. protection from strategic and theater ballistic missile threats, he said.

The Ground/Air Task-Oriented Radar team replaced five legacy radar systems with a single solution that better protects Marines in the field, while saving more than $334 million, the secretary said.

And the Joint Program Office's Joint Light Tactical Vehicles team is delivering tactical vehicles strong enough to meet the Army's protection requirements and the Marine Corps' mobility requirements, he said.

Should Cost and Innovation

Carter said he also was honored to recognize the two recipients of the Should-Cost and Innovation Award.

"Should cost is a term I coined with Frank [Kendall] ... as a way of highlighting the importance for all program managers—on the government and industry teams—to understand thoroughly every single item and ... to make sure they know what each part should cost," the secretary explained.

By doing so, he added, the 2015 Should-Cost Award recipients have saved a tremendous amount of money for the taxpayer.

The Air Force Materiel Command's Armament Directorate saved $694 million while equipping U.S. warfighters with war-winning airpower capabilities, Carter said.

"They've fostered a culture for a 1,800-person organization in which an innovative idea from one program can now be immediately shared and replicated across 83 other programs," he added.

And the E-2/C-2 Airborne Tactical Data System Program Office built a software platform in its spare time to manage should-cost initiatives for products that extend the Navy's eyes, ears, and logistics capabilities.

"Through this tool," Carter said, "they've secured $500 million in savings, with the added benefit of creating the capability to dial out obsolescence before it happens."

Superior Products, Better Prices

Near the end of the ceremony, Carter thanked all the teams in the audience. "Thanks for your professionalism, your dedication to our warfighters and our taxpayers, and for your inspirational ingenuity in delivering superior products at better prices—that's what it's all about," he added.

Awards Dinner Recognizes Exemplary STEM Professionals

ARMY NEWS SERVICE (FEB. 22, 2016)
C. Todd Lopez

PHILADELPHIA—Philadelphia's integral role in Navy history and technological development for some 240 years made it an ideal location for some of the brightest military officers, enlisted personnel, and members of the Senior Executive Service to be recognized for their accomplishments by professionals in science, technology, engineering, and mathematics fields, the chief of Navy personnel said Feb. 19.

Navy Vice Adm. Bill Moran served as the keynote speaker for the 11th annual "Stars and Stripes" dinner and awards program here, which was held concurrently with the 30th Annual Black Engineer of the Year Award (BEYA) STEM conference.

This year the Navy hosted the dinner, an event that recognizes top-performing African-American military and civilian leaders in the armed forces.

'Extraordinary' Naval History

Before an audience of active and retired service members, defense contractors, and invited students, Moran highlighted how Philadelphia was at the center of the development of the Navy technology that contributed to the United States gaining independence from the British.

Philadelphia, he said, is a city with "extraordinary" naval history. In 1776, he said, the city was "by far the largest seaport in North America, ... the home of the country's most talented ship architects, engineers, and builders."

Naval engineers gathered in Philadelphia and built just six frigates to defend America against the British fleet of nearly 300 such ships.

But the "unmatched speed, agility, and firepower brilliantly designed into those six frigates was revolutionary for the time," Moran said. "Those young American engineers dreamed what they could see, and what they could dream they could make a reality."

At the Stars and Stripes dinner, he said, participants would celebrate not only exceptional intelligence and fearless ambition, such as what was displayed in the early years of the United States in Philadelphia, "but something even more important and rare: the moral courage to do what is right and to ultimately prevail—the essential quality for those who would change the world, where change does not come easily."

The Stars and Stripes dinner and awards event was just one part of the larger BEYA conference, which ran Feb. 18-20.

The Future of STEM

Earlier in the day, as part of the Stars and Stripes portion of the BEYA conference, about 140 active and retired general and flag officers, members of the Senior Executive Service, and other senior professionals in science, technology, engineering, and mathematics fields mentored more than 300 students from Philadelphia; Washington, D.C.; Maryland; and Virginia. About 100 of those students were invited to stay for the Stars and Stripes dinner.

Moran told those students he hopes that if they took home just one thing from the conference, it would be that they could one day "see yourselves in our shoes."

Before the dinner, Moran showed a short video that highlighted Navy service and technology. It featured an array of young sailors and naval officers who spoke about their service and what it meant to them. Moran told the students that those young people in the video, those sailors and naval officers, were very similar to them.

"Just a few years ago, the voices you heard in the video were your own. ... They had many of the same thoughts, dreams, and options," he said. "They wanted to share with you their experiences, and send you a message from their hearts. They want you on America's team, their team, to become part of something big and very important. To make a difference, but to also discover the magic of science and promise of engineering. ... That is what tonight is all about.

"And when we're through, ask yourselves if you are ready and willing to start now. And if you are, all of us—the Army, the Navy, the Marine Corps, the Air Force, and Coast Guard—we all have a spot for you on our team."

Award Recipients
During the awards portion of the event, eight individuals were honored for their contribution to the military.

"We are here to lift those individuals up, to make them real to America, and to make them real to the young men and women who we met and mentored this afternoon," Moran said. "We applaud their service, their dedication, and their humility. What better way for us to remember the legacy of this great city than to reflect on the American spirit that is still ignited and shining brightly in these individuals tonight."

Those honored as part of the 11th Annual Stars and Stripes recognition program include:
- Navy Capt. Mark Glover, program manager for Navy Communications and Global Positioning System, Navigation Program Office;
- Navy Fleet Master Chief Petty Officer April Beldo, Office of the Chief of Naval Operations N1, Manpower, Personnel, Education and Training;
- Navy senior executive Jimmy D. Smith, director of Integrated Nuclear Weapons Safety and Security, Strategic Systems Programs;
- Army Brig. Gen. Carl A. Alex, assistant deputy chief of staff, G-3/5/7, U.S. Army Forces Command;
- Air Force Lt. Col. Keithen A. Washington, assistant director for Officer Commissioning Programs, Office of the Under Secretary of Defense, Personnel and Readiness;
- Marine Corps Lt. Col. David Everly, junior military assistant to the Secretary Of Defense;
- Coast Guard Capt. Jason A. Merriweather, chief of the Office of Military Personnel, Coast Guard Headquarters; and
- National Guard: Air Force Brig. Gen. Leonard Isabelle, chief of staff of Joint Forces Headquarters, Michigan Air National Guard; and commander, Michigan Air National Guard.

AF Discusses Game-Changing Technologies During Defense Innovation Hearing

OFFICE OF THE DEPUTY ASSISTANT SECRETARY OF THE AIR FORCE FOR SCIENCE, TECHNOLOGY AND ENGINEERING (FEB. 26, 2016)

WASHINGTON—The Air Force's pursuit of game-changing technologies and the need to attract and retain talented science, technology, engineering, and mathematics professionals were at the center of discussions during a hearing on defense innovation before the House Armed Services Committee's subcommittee on Emerging Threats and Capabilities on Capitol Hill Feb. 24.

Dr. David Walker, the Air Force deputy assistant secretary of science, technology, and engineering joined colleagues from throughout the Defense Department's science and technology enterprise to testify on efforts to maintain—and grow—the technological advantage of the U.S.

"We're at a critical juncture in history," he said. "The relentless pace of change continues to increase complexity and decrease predictability in warfare."

Walker said the Air Force is committed to investment in S&T and embracing new paradigms in capability development.

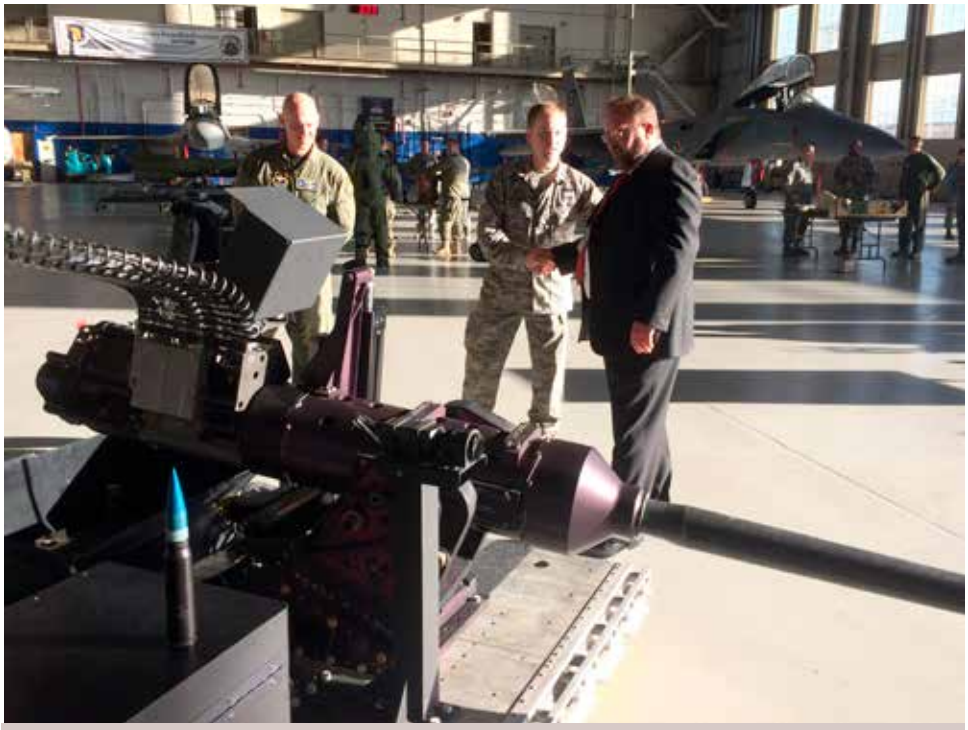
The Air Force's fiscal year 2017 President's Budget request for S&T is approximately $2.5 billion, which is an increase of approximately 4.5 percent over the Air Force's fiscal 2016 President's Budget request. The Air Force S&T program supports the DoD's efforts in the Long Range Research and Development Planning Program and Third Offset Strategy.

He highlighted the continued emphasis on the game-changing technologies of directed energy, nanotechnology, autonomous systems, unmanned systems, and hypersonics. As outlined in the Air Force Strategy, "America's Air Force: A Call to the Future," these technologies amplify many of the enduring attributes of airpower–speed, range, flexibility, and precision.

In terms of directed energy, Walker discussed the Air Force efforts to integrate lasers on aircraft for both defensive and offensive purposes.

"The Air Force is flying every day with lasers under our large aircraft with preventive countermeasures systems," he said. "We have spun out low power lasers that protect our aircraft flying in theater today. The goal is to build off the experiences we have there, as we get larger power outputs, better thermal management out of smaller package lasers to be able to transition these to other aircraft besides our large transport aircraft."

Walker briefly discussed two Air Force efforts in this area. Air Combat Command has commissioned the Self-Protect High Energy Laser Demonstrator (SHIELD) Advanced Technology Demonstration, which will be focused on developing and integrating a more compact, medium-power laser weapon system onto a fighter-compatible pod for self-defense against ground-to-air and air-to-air weapons. Air Force



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Courtesy photo/Air Force Research Laboratory

well as recruiting, retaining, and developing the current STEM workforce.

Walker identified the Science, Mathematics, and Research for Transformation scholarship for service program as valuable in attracting top talent to the Air Force Research Laboratory.

"One of the keys to retaining talent is getting them into the laboratory and getting them an opportunity to operate in the laboratory and the freedom and magnitude of responsibility they get within government laboratories," he said.

"The SMART program is a way to bring them in and then continue to educate them as they move forward. That's one of the ways we've been able to bring in top talent, and so far we've been retaining about 87 percent after their mandated service is up."

Special Operations Command has commissioned both Air Force Research Laboratory and the Naval Support Facility Dahlgren to examine placing a laser on an AC-130U gunship to provide an offensive capability.

Another promising area according to Walker is the "science of the small," or nanotechnology.

"How do we take advantage of nano materials, quantum effects, metamaterials, and then how do we link that with biological agents to help us manufacture those materials in a very effective way?" he said. "There's a lot of promise in that area that I think we'll see in the future that it will move us into being able to build materials that we don't even conceive of at this time."

Walker also told the subcommittee that none of the Air Force S&T efforts would be possible without world-class scientists and engineers. He said the Air Force has emphasized funding in attracting and inspiring people to STEM careers, as

Pentagon Announces Research Equipment Awards

DEPARTMENT OF DEFENSE NEWS, DEFENSE MEDIA ACTIVITY (MARCH 2, 2016)

WASHINGTON—The Defense Department announced in a news release today that 176 university researchers at 96 academic institutions have been selected to receive research instrumentation awards.

The awards will total $50.1 million and will be made under the Defense University Research Instrumentation Program, according to the release.

The program supports the purchase of state of the art equipment that augments current university capabilities or develops new capabilities to perform cutting edge defense research and associated graduate student research training.

Merit Competition

The awards announced today are the result of a merit competition jointly conducted by three DoD research offices: the Army Research Office, Office of Naval Research, and Air

Force Office of Scientific Research. Those offices will make the awards, which are subject to the successful completion of negotiations with the academic institutions.

The program is highly competitive. The three DoD research offices solicited proposals from university investigators conducting science and engineering research of importance to national defense.

This includes research that underpins advances in materials, structures, and manufacturing science; quantum and nanosciences; computing and networks; electronics, electromagnetics, electro optics; acoustics; neuroscience; fluid dynamics; robotics and autonomous systems; and ocean, environmental, and life sciences and engineering.

In response to the requests, the three research offices collectively received 622 proposals requesting $209 million in support for research equipment. The most meritorious proposals were selected to receive support.
The Defense University Research Instrumentation Program awards will range from $53,000 to $1.4 million, and average approximately $300,000 per award.

AFRL Engineer Lauded for Advancing Domestic Manufacturing Capabilities

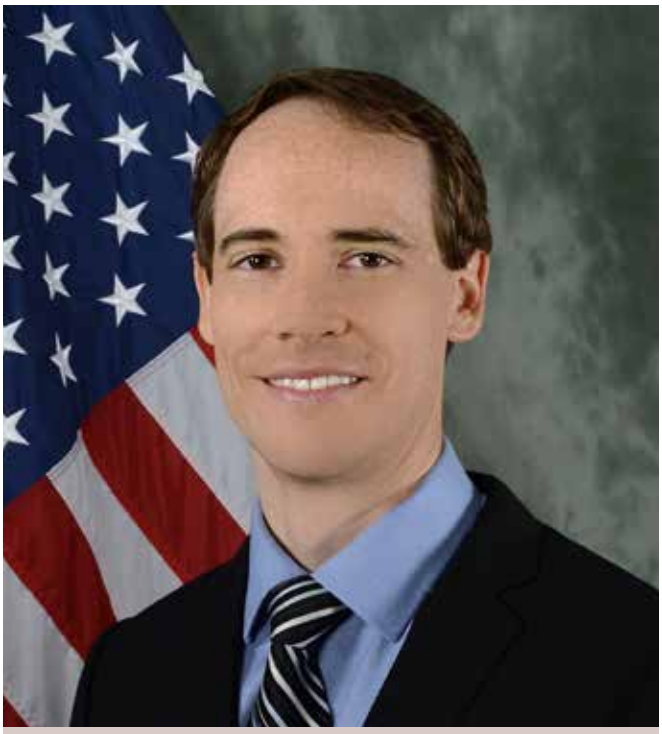
AIR FORCE RESEARCH LABORATORY MATERIALS AND MANUFACTURING DIRECTORATE (MARCH 4, 2016)
Holly Jordan

WRIGHT-PATTERSON AIR FORCE BASE, Ohio—Air Force Research Laboratory materials engineer Dr. Benjamin Leever received the Office of the Under Secretary of Defense for Acquisition, Technology and Logistics Award of Excellence at a February 22, 2016, ceremony at the Pentagon.

The Honorable Frank Kendall presented the award for Leever's integral role in standing-up the newest U.S. Department of Defense Institute for Manufacturing Innovation.

An expert in integrated devices, flexible electronics and multifunctional structures, Leever serves as the AFRL Portfolio Lead for Airman Performance Monitoring and Aeromedicine, where he determines technical strategy, manages AFRL contracts, and establishes industrial, academic, and governmental collaborations.

Leever is an active proponent of the utility of flexible hybrid materials and electronics for applications such as energy storage, sensing, structurally integrated antennas, structural health monitoring, and many other military and commercial uses. He has been instrumental in promoting these technologies to manufacturers and customers and encouraging the exchange of ideas and resources within the professional community.



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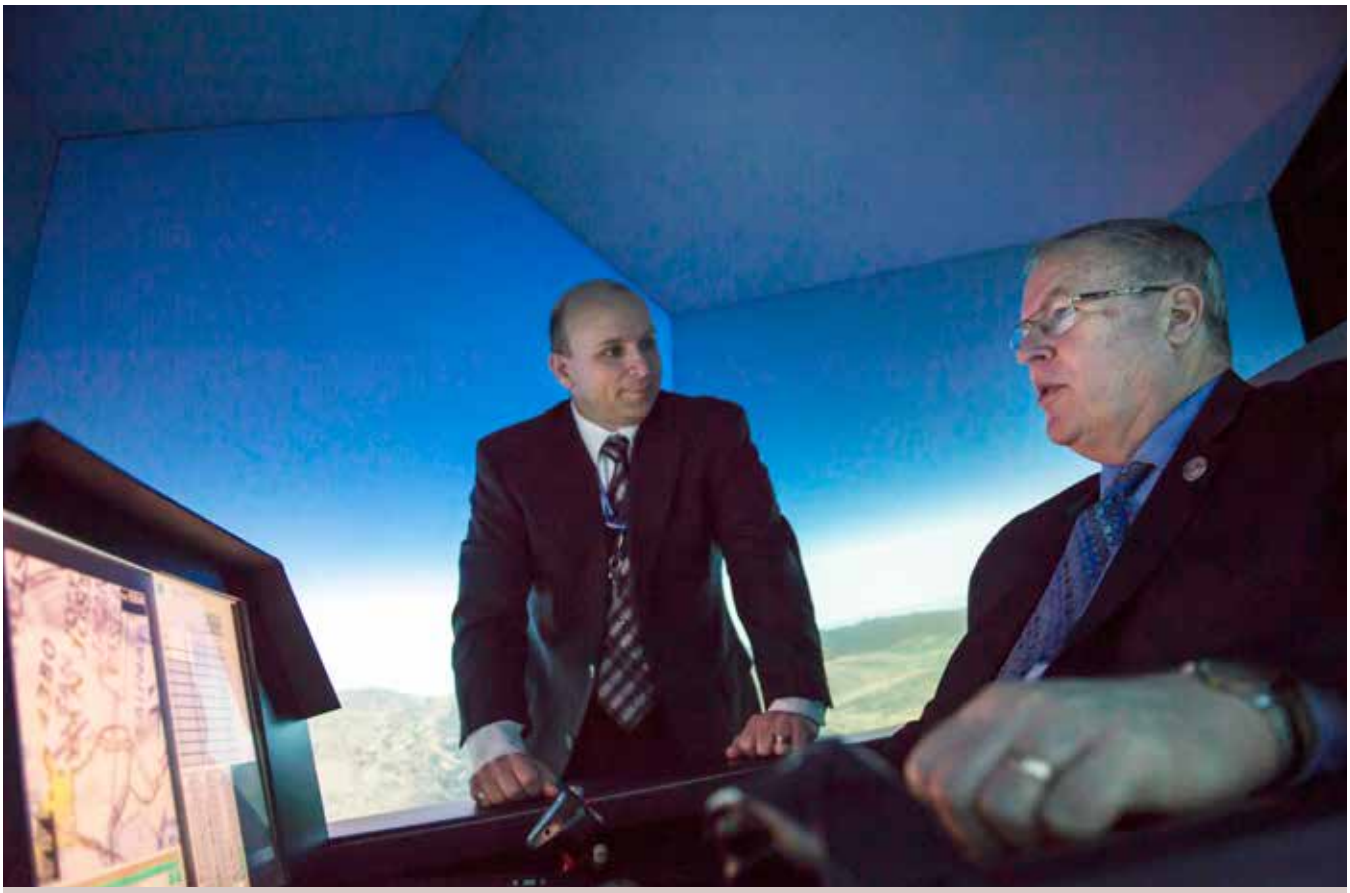
U.S. Air Force photo

This award comes as a result of Leever's recent contributions to help enable the development and implementation of the American Institute for Manufacturing Integrated Photonics, the NextFlex Flexible Hybrid Electronics Manufacturing Institute, and the Revolutionary Fibers and Textiles Institute for Manufacturing Innovation. These White House-sponsored public-private partnerships are designed to address the full spectrum of multifunctional materials development, from design to manufacture, creating a domestic manufacturing "ecosystem." In addition to his AFRL role in Performance Monitoring, Leever also serves as the Government Chief Technology Officer for NextFlex.

"It's a great honor to be recognized by the acquisition community for our efforts to deliver game-changing technologies to our airmen based on flexible hybrid electronics. NextFlex and the other Manufacturing Institutes offer a unique and



Deputy Defense Secretary Bob Work operates a flight simulator during his visit to Wright-Patterson Air Force Base, Ohio, in support of the White House's Week at the Labs initiative, March 3, 2016. Work also toured the base and spoke to students from the Dayton, Ohio, area during his visit.

DoD photo by Air Force Senior Master Sgt. Adrian Cadiz

critical opportunity to collaborate with companies and universities to build a sustainable manufacturing infrastructure in the U.S.," Leever said.

The Award of Excellence is presented annually to civilian and military personnel who demonstrate innovation and best practices in acquisition or in furthering life-cycle cost reduction in the Department of Defense.

Work: Exciting Technology Under Development

DEPARTMENT OF DEFENSE NEWS, DEFENSE MEDIA ACTIVITY
Lisa Ferdinando

WRIGHT-PATTERSON AIR FORCE BASE, Ohio—The civilian and military personnel at the laboratories here are working on cutting-edge technologies to maximize human performance, protect the warfighter, and secure the nation.

Deputy Defense Secretary Bob Work made a number of stops here yesterday during a one-day visit, including to the 711th Human Performance Wing and the National Air and Space Intelligence Center.

The visit was focused on the technologies that would support the department's third offset strategy, intended to deter and protect against emerging and new threats, he said.

That strategy includes the development of learning systems, human-machine collaboration and combat teaming, and network-enabled and cyber-hardened autonomous weapons, the deputy defense secretary said.

Research and development and readiness are deeply connected, Work said. The department has achieved a good balance between future readiness and current readiness, he added.

Advanced Technologies to Help Warfighter
Work highlighted the programs he was briefed on yesterday, including the technology demonstration program known as BATMAN—Battlefield Air Targeting Man-Aided Knowledge—which focuses on adapting technologies to dismounted airmen.

It's an advanced technology research program within the 711th Human Performance Wing, developed at the Air Force Research Laboratory.

BATMAN includes the Battlefield Airmen Trauma Distributed Observation Kit, or BATDOK, which would allow an Air Force pararescue jumper to monitor the vital signs of several wounded service members at once through the use of sensors and a small, wireless computer that can be worn on the jumper's forearm.

"That's a perfect example of how wearable electronics and stuff like that can assist the human in doing their jobs on the battlefield," Work said.

That technology could be used elsewhere in the battlefield to protect and assist service members, Work explained.

Other technologies under development include autonomous weapons systems, advanced aircraft anti-collision systems, sophisticated monitoring sensors for aircrew, and new aerial radars and sensors that track activity on the ground.

Promote STEM, Stay Cutting Edge
At the start of his visit here, Work spoke to a group of middle- and high-school students, to encourage them to consider a government career in science.

The youth were visiting the base for "Week at the Labs," a White House initiative to inspire students—especially those in underserved communities—to consider careers in science, technology, engineering, and math.

The United States is among the most technologically advanced nations in the world, Work said. It is "absolutely critical for the security of the nation" that it stays on the cutting edge, he said, so recruiting the best people is important.

In decades past, the technology that was driving military innovation was coming from the U.S. government, but that's not the case anymore, the deputy defense secretary said.

Most of the military-relevant technologies of today, such as robotics, artificial intelligence, and autonomous technology are being driven by the commercial sector, he added.

"We're in a competition for talent," Work said. That is why it is critical to recruit the best and the brightest that America has to offer, who include, Work said, the youth who visited the base for the day.

American Society of Naval Engineers Recognizes Carderock Senior Scientists

NAVAL SURFACE WARFARE CENTER, CARDEROCK DIVISION PUBLIC AFFAIRS (MARCH 11, 2016)
Dustin Q. Diaz

WEST BETHESDA, Md.—Ted Farabee and E. Thomas Moyer earned recognition from the American Society of Naval Engineers (ASNE) during the ASNE annual awards banquet in Arlington, Virginia, March 3.

Farabee and Moyer, both senior scientists assigned to Naval Surface Warfare Center, Carderock Division (NSWCCD), received the Gold Medal and Solberg awards from Rear Adm. Lorin Selby, commander, Naval Surface Warfare Center (NSWC), and Tim Arcano, NSWCCD technical director, respectively.

The Gold Medal Award (Engineering) is given to an individual who has made a significant naval engineering contribution in a particular area during the past five years. Farabee has served as NSWCCD's senior research technologist since 2009. Before that, he served at Carderock as a staff scientist providing technical oversight and scientific direction on ship silencing programs. Today, he works to identify enabling technologies and design initiatives for the Ohio Replacement design.

Farabee has been associate editor of the American Society of Mechanical Engineers' *Journal of Vibrations and Acoustics* since 2012 and has contributed to more than 50 manuscripts for that publication, along with authoring and coauthoring more than 90 journal articles, technical reports, and presentations.

"To sum it up, he is someone who wakes up every morning and challenges himself by asking, 'What can I do for the fleet today?'" said Selby, "and that is powerful."

While accepting the award, Farabee noted he felt the individual nature of the award was misleading about the collaborative nature of his accomplishments.

"Significant accomplishments result from the collective work of many, not an individual," Farabee said. "I am but the fortunate person who is being recognized for a group's achievements. For that I want to thank my colleagues with

the NAVSEA [Naval Sea Systems Command] Command structure, at the various program offices, at the Carderock Division of NSWC, and most notably those in the Signatures Department at Carderock. It is their efforts for which I now stand here and receive this award."

The Solberg Award is given to an individual who has made a significant contribution to naval engineering through personal research. Moyer is the Navy's senior technologist for ship survivability, modeling, and simulation. He has more than 30 years of post-doctoral experience as a naval engineer and researcher improving the Navy's ability to achieve optimal survivability in its ships to maintain their warfighting superiority.

The award recognizes him for his work in developing advanced physics-based analytic design methods that Arcano said "will revolutionize the U.S. Navy's ability to predict weapons damage to warships, obviously of critical concern to the Navy in direct support of the warfighter."

"It's no small task to predict the response of surface ships to underwater explosions," Moyer said. "Ships are large, complex systems of systems, as well as complex structures necessitating large analysis models. I've had the benefit of support of various sponsors who have encouraged and facilitated my work."

Moyer thanked Robert Keane, an ASNE Life Member, for the nomination, Arcano for the introduction, and his wife, Sue, for her "patience, love, and support."

Arcano said that Moyer's work with the Office of the Secretary of Defense's Computational Research and Engineering Acquisition Tools and Environments–Navy Enhanced Sierra Mechanics ships program has the potential to streamline the entire ship design process and reduce costs.

"Through his teaching at MIT [Massachusetts Institute of Technology], as an active member of the ASME [American Society of Mechanical Engineers], Moyer's past and continuing efforts help assure our Navy's capability to engineer America's maritime dominance," Arcano said. "It is a pleasure to recognize his leadership, experience, and accomplishments with the 2015 Solberg Award."

Moyer has over 50 publications in various professional journals and conference proceedings. In addition, he is the author or co-author of more than 100 technical reports provided to research sponsors and consulting customers including the U.S. Navy, U.S. Army, U.S. Air Force, National Aeronautics and Space Administration, as well as various commercial and foreign organizations.

Carderock engineers also won these awards in 2014, with Christopher Bassler receiving the Solberg Award and Adrian Mackenna receiving the Gold Medal Award.

NSWCCD, part of NAVSEA, leads the Navy in hull, mechanical, and electrical engineering. Headquartered in West Bethesda, Maryland, NSWCCD employs approximately 2,000 scientists, engineers, technicians, and support personnel and includes detachments in Norfolk, Virginia; Port Canaveral, Florida; Fort Lauderdale, Florida; Memphis, Tennessee; Bangor, Washington; Ketchikan, Alaska; and Bayview, Idaho.

For more news from Naval Surface Warfare Center Carderock, visit http://www.navy.mil/local/nswcc/.

Army Establishes Awards To Honor Lt. Gen. (R) Arthur Gregg, Maj. Gen. Harold Greene

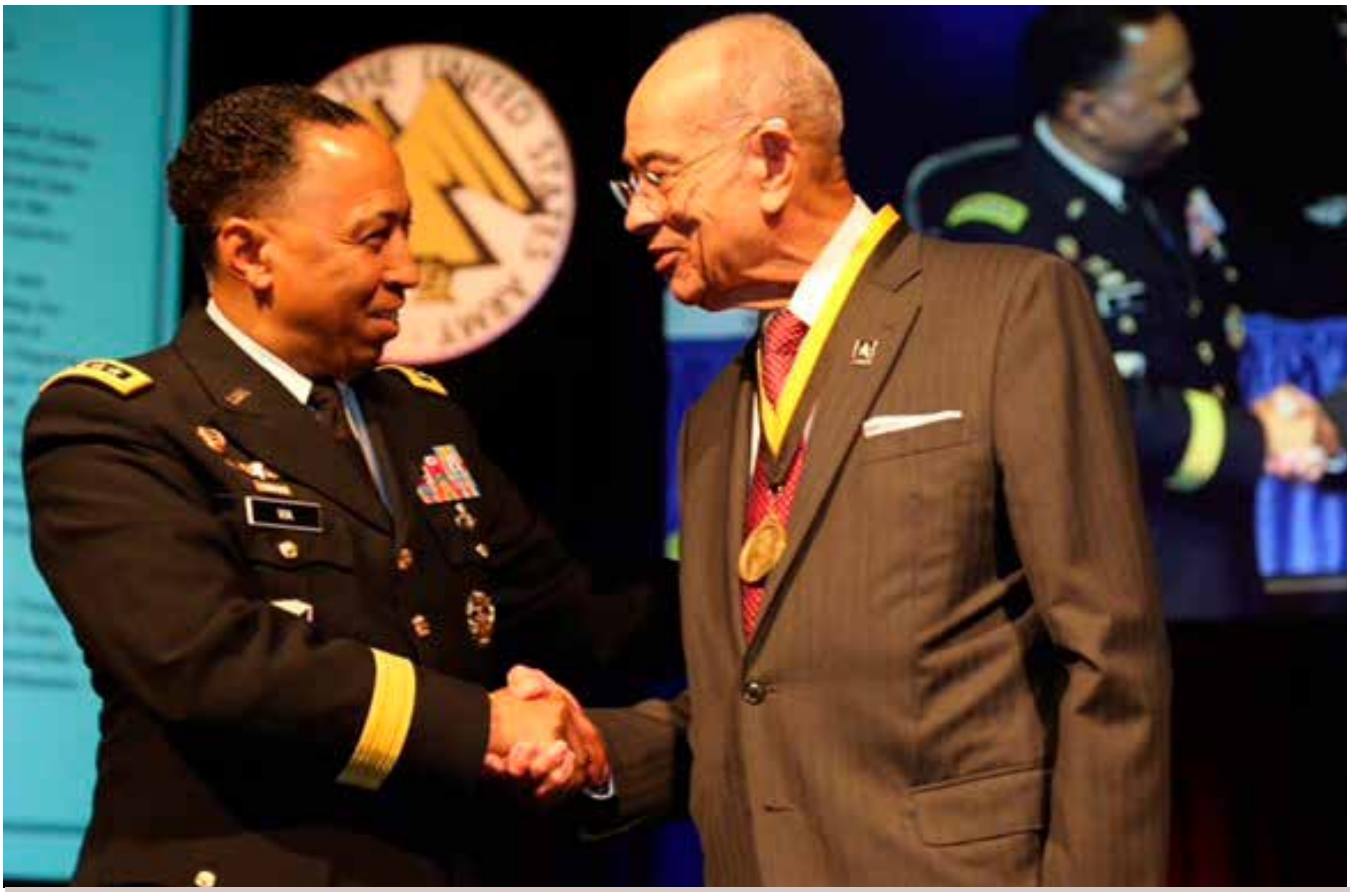
HUNTSVILLE, AL—Gen. Dennis L. Via, Army Materiel Command commander, today announced the establishment of two Army Awards—one for leadership and another for innovation—at the AUSA Global Force Symposium and Exposition. The awards honor two distinguished soldiers, Lt. Gen. (R) Arthur J. Gregg and the late Maj. Gen. Harold "Harry" J. Greene, for the standards of excellence that they set in leadership and innovation.

"Today's recognition of Lt. Gen. Arthur J. Gregg and the late Maj. Gen. Harold Greene, presented to his wife, Dr. Susan Myers, was a fitting tribute to two leaders who blazed trails in Army logistics, and research and development," said Gen. Via. "These awards will forever bear their names, and serve to remember and honor their lasting contributions and legacy."

Lt. Gen. (R) Arthur J. Gregg Sustainment Leadership Award

Recipient of the inaugural Lt. Gen. Arthur J. Gregg Sustainment Leadership Award is its namesake, Lt. Gen. (R) Gregg, one of the Army's great logistics leaders of the 20th century.

Gregg started as a private in 1946, and moved up the ranks to become a three-star general, retiring in 1981 as the Army's Deputy Chief of Staff for Logistics. He commanded a supply and services battalion in Vietnam, commanded an Army depot, and directed logistics for the Joint Chiefs of Staff. Throughout his career, he improved supply performance, enhanced readiness, and better equipped Army warfighters.



Gen. Dennis L. Via, Army Materiel Command commander, congratulates retired Army Lt. Gen. Arthur J. Gregg, after presenting him the inaugural Lt. Gen. (R) Arthur J. Gregg Sustainment Leadership Award.

U.S. Army photo

Gregg also overcame adversity during the socially turbulent times of the 1950s and 1960s. He stood out as an unpretentious, selfless leader with an inspiring work ethic.

"My philosophy on leadership is very simple and straight forward," he said. "I think a leader must always put the mission first and himself or herself last."

Future Gregg Awards will recognize soldiers or civilians whose leadership is credited with making significant and measureable contributions by improving operating efficiencies, readiness levels, or demonstrating fiscal responsibility.

Maj. Gen. Harold "Harry" J. Greene Award for Innovation

Dr. Susan Myers, wife of Maj. Gen. Greene, was on hand for the announcement of the creation of the new Maj. Gen. Harold "Harry" J. Greene Award for Innovation, and was presented an honorary award commemorating its establishment.

Maj. Gen. Greene, a 34-year Army veteran, was killed in 2014 in Afghanistan, while serving as the Deputy Commanding General of the Combined Security Transition Command—Afghanistan.

Following years of service in the engineering field, from Athens, Greece, to Istanbul, Turkey, he rose to become deputy commanding general of the U.S. Army Research, Development and Engineering Command at Aberdeen Proving Ground, Maryland, and the commanding general of Natick Soldier Systems Center, Natick, Massachusetts. During his tenure at both organizations, he advocated for the incorporation of cutting-edge technologies—from smartphones to video games—into soldier training.

His success in the Army's research and development organizations was a foundation for his leadership as program executive officer for intelligence, electronic warfare, and sen-

sors in the Office of the Assistant Secretary of the Army (Acquisition, Logistics and Technology).

Future Greene Awards will recognize soldiers and civilians who contribute to Army science, technology, research, and development, and whose efforts foster innovation and excellence throughout the materiel enterprise.

DoD Standardization Program Announces 2015 Awards

DEPARTMENT OF DEFENSE NEWS, DEFENSE MEDIA ACTIVITY (MARCH 24, 2016)
Cheryl Pellerin

WASHINGTON—Two people and five teams have received awards from the Defense Standardization Program Office for outstanding achievements in 2015. The awards were presented March 16 during a ceremony at the Pentagon's Hall of Heroes.

Since 1987, DSPO has recognized people and organizations that have significantly improved quality, reliability, readiness, cost reduction, and interoperability through standardization. The program promotes interoperability and assists in reducing total ownership cost and sustaining readiness, DSPO officials said.

Standards are the common use of rules, conditions, guidelines, or characteristics for products or processes and production methods, and management systems practices, according to the Office of Management and Budget.

A basic standard, for example, has a broad effect in a particular field, such as a standard for metal that affects a range of products from cars to screws. Test and measurement standards define methods to be used to assess the performance or other characteristics of a product or process.

"Standardization is about finding common solutions for common problems and sharing them across programs. It can be a great challenge," Gregory E. Saunders, director for the Defense Standardization Program, said in a statement.

Distinguished Achievement Award

Taking top honors and receiving the Distinguished Achievement Award this year was Dr. Terrence D'Onofrio from the Army Edgewood Chemical Biological Center in Maryland. He invented a contact-based permeation research fixture and methodology that closed a critical gap in protection testing. The low-volatility agent permeation system is the first contact-based method that accurately quantifies the permeation hazard of low-volatility contaminants, such as the chemical nerve agent VX, through clothing and protective equipment.

Following are the other DSP award recipients for 2015:

New Performance Specification

John Bonitatibus of the Defense Logistics Agency developed a new performance specification—MIL-PRF-32535—and 10 specification sheets covering extended-range surface-

Edgewood Chemical Biological Center and several partner organizations developed the low-volatility agent permeation test method, shown here, for the Defense Department. The contact-based method uses a sorbent pad to collect the total permeated mass of contaminant.

Army photo

mount ceramic chip capacitors for high- and standard-reliability applications.

The new specification could preclude 50 non-standard parts each year for the next five years, resulting in cost savings of $1.4 million annually, according to the award citation.

Noise Limit Standard
An Army-led team with members from the Navy and Air Force revised MIL-STD-1474 for noise limits. A study showed that the Department of Veterans Affairs is spending $1 billion a year on hearing-loss claims. The defense secretary's office asked each Service to find ways to reduce noise from military equipment and the team updated the military standard for noise limits.

Team members include Bruce Amrein, John Mallino, Charles Jokel, Richard McKinley, and Kurt Yankaskas.

Framework for Training Simulators
A Navy team from the Naval Air Warfare Center Training Systems Division developed a standardized architecture and framework for producing training simulators that replicate the functionality of U.S. aviation, submarine, and surface-ship tactical systems.

The framework can be used to produce photo-realistic weapon systems in a simulated 3D environment. The new Multipurpose Reconfigurable Training System 3D represents a significant advance in low-cost, high-fidelity tactical equipment, and sets the standard for future trainers.

Team members include David Thomas, Darrell Conley, Bill Zeller, Khoa Vu, and Christopher Freet.

Converter for Precision Radar
A Navy team from Space and Naval Warfare Systems Center-Pacific determined that a standard 400-Hertz converter produced for the Army could replace a problematic 400-hertz (cycles per second) converter used in the Navy's AN/FPN-63 (V) precision-approach radar, or PAR.

PAR is the Navy and Marine Corps' fixed-base primary approach aid used in poor visibility to radar-guide an aircraft on final approach. After testing, the Navy made refinements to handle overload conditions and the 400-hertz converter's electronics and programming are identical in Army, Navy, and Marine Corps versions.

Team members include Richard Gunn, Stephen Cox, Terry Stockton, and Erin Yakes.

Aircraft Crew Breathing System
An Air Force team developed a standard for aircraft crew breathing systems using on-board oxygen generating systems, or OBOGS, in response to hypoxia-like incidents that occurred because OBOGS requirements were not consistently applied.

The Air Force, in conjunction with the Navy and aerospace industry, developed MIL-STD-3050, which covers the design, integration, certification and sustainment requirements for aircraft crew breathing systems using an OBOGS. The standard now will prevent inconsistent application of life-support-system-critical items that include an OBOGS.

Team members include George Miller, Jose Ubinas, and Madeleine Istvan.

Open-Standards Collaboration Service
A team from the Defense Information Systems Agency replaced the legacy-managed service Defense Connect Online with a collaboration service that features modular open-standards architecture. The Defense Collaboration Services system is based on mature open-source web-conferencing software and XMPP-based chat software to reduce costs.

Team members include Deepak Seth, Bruce Watkins, Jay Chung, Brian Fuchs, and Steven Crum.