Save the Date for the 2017 DoD Product Support Manager Workshop

Bill Kobren
Defense Acquisition University
Director, Logistics & Sustainment Center
Dec. 12, 2016

Product support managers, life cycle logisticians, defense industry counterparts, program managers, and other interested members of the defense acquisition workforce once again have the opportunity to attend the annual DoD Product Support Manager (PSM) Workshop. Since 2011, the Department of Defense has hosted four Product Support Manager (PSM) Workshops. The 2017 Workshop is slated for **June 6–8, 2017,** in the Jacob E. Smart Conference Center at Joint Base Andrews, Maryland. The Office of the Assistant Secretary of Defense (Logistics & Materiel Readiness) has blocked 75 rooms at the on-site lodging facility for out-of-town attendees. The facility is within walking distance of the conference center.

The focus of this upcoming DoD PSM Workshop is to provide an opportunity to develop the workforce's sustainment planning competency, share proven practices, and strengthen collaboration between industry and government leaders—as well as to learn, to grow professionally, and to facilitate dialog with colleagues. Mark your calendars now.

Further details, including registration information, will be forthcoming, and will be available on the PSM Reference Repository on the DAU Logistics Community of Practice (LOG CoP), the AT&L Leadership Blog portal, and the ODASD (Materiel Readiness) websites.

Navy Program Office Recognized for Innovation Excellence

PROGRAM EXECUTIVE OFFICE FOR COMMAND, CONTROL, COMMUNICATIONS, COMPUTERS AND INTELLIGENCE PUBLIC AFFAIRS (DEC. 12, 2016)
Krishna M. Jackson

SAN DIEGO—A team from the Navy's Undersea Integration Program Office (PMW 770) was selected for the 2016 Innovation Excellence Acquisition Team of the Year award by Assistant Secretary of the Navy for Research, Development and Acquisition (ASN RD&A). The team was recognized Nov. 18 and 28, 2016.

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The Navy's Undersea Integration Program Office (PMW 770) Model Based Systems Engineering (MBSE) team receives applause from Rear Adm. Christian "Boris" Becker, right, commander, Program Executive Office for Command, Control, Communications, Computers and Intelligence (PEO C4I) and John Pope III, executive director PEO C4I, left, upon receiving the Department of the Navy 2016 Innovation Excellence Acquisition Team of the Year award. The team was initially presented the award during an awards ceremony at the Pentagon Nov. 17, 2016. PMW 770 uses MBSE to quickly integrate commercial off-the-shelf technology and modernize the Navy's current technologies to work with already existing systems.

U.S. Navy photo by Krishna M. Jackson

The team joined other acquisition excellence awardees at the Pentagon Nov. 17, 2016, for an awards presentation by the Hon. Sean J. Stackley, ASN RD&A.

"Being recognized by the Navy for our innovative efforts and success in using resources more efficiently is excellent. Our engineering need drove us to adopt the MBSE modeling tool, in this case helping us do more with the same, I personally feel the real benefit is showing our workforce that not only is innovative thought advocated, it is rewarded. I am most excited for the next innovative solutions," said Capt. Ed Anderson, PMW 770 program manager.

Anderson was joined by the MBSE team; Brent Starr, Todd Trahan, Brent Murray, Anthony Russell, and Peter Brklycica, recognized during both ceremonies. Starr, as the team lead, provided an overview of how he and his team applied MBSE to integrating submarine communications during a PEO C4I all-hands awards ceremony.

"We started to use the model to help better understand the finest details of the end-to-end NC3 architecture and our cybersecurity posture. I think this has almost universal application across the Navy to both shore and afloat environments," said Starr.

The MBSE Team documented more than 18,000 components and interfaces within the submarine communications realm and entered the data into a computer-based integrated modeling environment where they can analyze the effects of adding, taking away, or changing a component or system. The MBSE provides a 400 percent increase in detail availability to traditional development and modernization tools. This reduces the risk of outages by 30 percent to 60 percent during system integration and modernization.

"The visibility the MBSE model gives us throughout the systems engineering process allows us to provide more secure, more robust, and better sustainable systems. This has

a direct impact on performance in the field and reduces the maintenance load on our sailors," said Starr.

PMW 770 is now using MBSE to address one of the biggest challenges many Navy program offices face today and that is how to quickly integrate commercial off-the shelf technology and modernize the Navy's current technologies to work with already existing systems. PMW 770 is one of the first program offices to use MBSE to document and control submarine communication baselines and upgrades.

"PMW 770 is leaned on heavily by the fleet to maintain awareness of and champion new capabilities, opportunities, and remove challenges. We are doing a very good job staying out in front of new technology," said Anderson.

Anderson said he is most excited about the next innovative solutions his team will develop as they continue to support one of the Navy's most critical missions. PMW 770 delivers integrated and interoperable C4I capabilities by creating, connecting, and maintaining communication infrastructures for both afloat and shore for the Undersea Domain.

Their mission keeps the undersea forces connected through the latest advances in communication technologies critical to the unique mission submarines and other undersea vehicles conduct in support of national security, nuclear deterrence, and in the event of a nuclear threat including the Navy's Take Charge and Move Out (TACAMO) assets.

For more information, visit http://www.navy.mil, http://www.facebook.com/usnavy, or http://www.twitter.com/usnavy. For more news from Space and Naval Warfare Systems Command, visit http://www.navy.mil/local/spawar/.

Work Praises Industrial Base Innovation After Raytheon, Boeing Visits

DEPARTMENT OF DEFENSE NEWS, DEFENSE MEDIA ACTIVITY (DEC. 5, 2016)
Cheryl Pellerin

ABOARD A MILITARY AIRCRAFT—Defense Department recommendations in the president's fiscal year 2018 budget heavily emphasize increased munitions acquisition, Deputy Defense Secretary Bob Work said yesterday.

On his way back to Washington after a four-day trip to Arizona and California to meet with defense contractors, have lunch with airmen at Davis-Monthan Air Force Base in Tucson, and participate in the Reagan National Defense Forum, Work spoke with reporters traveling with him about his meetings.

"Over the last four or five years as we've tried to deal with $800 billion in defense cuts," the deputy secretary explained, "each of the Services has had to choose priorities, and generally what has happened is that munitions have taken short-shrift."

As a result, Work said, "we took a careful look at the different inventory objectives and tried to … expand munitions procurements as much as we can."

Industrial Base Innovation

Work's first stop was Raytheon Missile Systems in Tucson, Arizona. The company, according to its website, is a technology and innovation leader founded in 1922 with headquarters in Waltham, Massachusetts—61,000 employees worldwide and $23 billion in 2015 sales.

"They are one of our premier missile manufacturers," Work said. "They do a lot of other things, but I went specifically to Tucson to see their missile plant."

Among other things in Raytheon's 9,600-square-foot Space Factory, scientists in some of the world's cleanest "clean rooms" work on an evolving series of Raytheon-designed exo-atmospheric kill vehicles that seek and destroy ballistic missiles in space. Kill vehicles carry no explosives—they destroy missiles by steering into their paths and slamming into them, company literature says.

Raytheon, Work says, has automated a lot of its production, using bright-yellow Fanuc industrial robot systems to test and calibrate every weapon they make, not just one out of every 20.

"It used to be a very laborious process with humans on a bench, so they've invested a lot in robotics and [during the tour] they demonstrated to us how the robots work," he said, as the robots tested a missile's seeker for infrared radiation, vibration, and more.

"It's all on one line and the robot does everything, so the missiles are cleared faster and [the systems] are much more accurate over time," Work added, noting that Raytheon is using the same kind of robotic processing for some of its small space capabilities, like small low-earth-orbit satellites. Raytheon thinks a lot about advanced capabilities, the deputy secretary said.

"We spent about an hour talking about their ideas on hypersonics and making [our] current weapons better," he added.

In Raytheon's Space Factory in Tucson, Arizona, a technician inspects an exo-atmospheric kill vehicle, which travels through space to track and attack enemy missiles.
Courtesy photo

Work also visited Boeing's Defense, Space and Security facility in Huntington Beach, California.

"Boeing ... has spent a lot of their own money on advanced capabilities," he said, including the Navy's UCLASS, or unmanned carrier-launched airborne surveillance and strike program. The program was established to develop an autonomous aircraft-carrier-based unmanned combat aerial vehicle that would offer the fleet unmanned intelligence and strike capabilities.

"They had a model that they were ready to take to flight testing," the deputy secretary said, "but they paused because we made a slight change in our program."

At the Boeing facility Work was briefed on Echo Voyager, a 50-ton, 51-foot-long unmanned undersea vehicle, or UUV. The craft is a fully autonomous extra-large UUV that can be used for a range of missions, including intelligence, surveillance, and reconnaissance. The vehicle includes a modular payload section that's large enough to allow the UUV to perform at sea for months at a time, according to a Boeing fact sheet.

"We talk a lot about the Defense Innovation Unit-Experimental [effort] and [other private-sector tech-based programs], but the innovation in our defense industrial base is quite impressive," Work said, "... with a lot of innovation, a lot of focus on reducing cost, and a lot of focus on producing more capability for the warfighters."

Strategic Capabilities

Among the DoD offices that work with large defense contractors is the Strategic Capabilities Office, or SCO, headed by Will Roper. SCO's mission is unlike any other in the Defense Department, defense officials have said.

Start with an established military system like the Navy's Standard Missile-6, or SM-6, a surface-to-air air defense weapon first deployed in 1981. It and its variants launch from cruisers and destroyers and can stop incoming ballistic and cruise missiles at low altitudes in the atmosphere. Now make it do something completely different—such as offensively attacking and destroying enemy ships at extended ranges.

"The thing that is so unique about SCO and what I applaud Will Roper for doing [is that] he is plugged into the Service chiefs and the combatant commanders [and] they have established a level of trust with him," Work said.

When Roper visits companies like Boeing and others, the deputy secretary says, he speaks authoritatively about demonstration programs that senior DoD leaders are interested in. "That's an important signal to send to industry—if we go this way there may be a program on the other end," Work explained.

Getting Capability Out Fast

SCO has had 26 projects and six of them have transitioned to a Service program. Work said he expects that to increase. The Navy picked up SCO's SM-6 missile changeover, for example, and it's now a program of record, the deputy secretary said.

"Boeing and Raytheon and the other companies now ... bring their ideas to SCO and say, 'What do you think about this?'" Work said. "Will has the engineering talent to take a look ... and decide that he'll come up to the [Advanced Capability and Deterrent Panel] and try to convince [its top-level

members] that this is a demonstration we ought to pay attention to."

When SCO first began, they had about $50 million in projects the first year, and they're nearing $1 billion in projects now, Work said.

"When SCO comes in with a proposal, it's very well thought out and the majority of them get approved. So the thing we have to watch is that SCO is a relatively small organization and we want it to ... stay an [operation] that ... does demonstrations and gets capability out really fast," he added.

U.S., EU Agreement Enhances Military Logistical Efforts

U.S. EUROPEAN COMMAND NEWS RELEASE (DEC. 7, 2016)

WASHINGTON—Secretary of State John Kerry and European Union Representative for Foreign Affairs and Security Policy Federica Mogherini yesterday signed the European Union Military Logistical Assistance Agreement, according to a U.S. State Department statement.

"U.S. European Command is deeply integrated across the region, and this agreement increases our ability to rapidly exchange logistics support between our respective military forces in any situation," said Navy Rear Adm. Paul J. Verrastro, EUCOM's director of logistics.

"From peacekeeping operations to humanitarian assistance to major combat operations, this agreement strengthens the bond built over years and will enhance speed and access towards our collective logistics solutions to current and future challenges," Verrastro said.

According to a State Department press statement, the U.S.-EU Acquisition and Cross-Servicing Agreement will enhance "crisis response management and cooperation" while also facilitating "reimbursable logistic support, supplies, and services between the United States and EU during military deployments and operations."

"The signing of the ACSA marks a major milestone in U.S.-EU military cooperation in enabling crisis response and promoting security around the world," the statement said. "U.S. and EU personnel and forces continue to work hand-in-hand to address crises in international security, particularly in Africa."

Additionally, "The ACSA will also help to reinforce the strategic partnership between NATO and the EU as they work together to strengthen defense and security in Europe and project stability among neighbors and partners," the statement said.

DoD Officials Honor Defense Acquisition Workforce Professionals

DEPARTMENT OF DEFENSE NEWS, DEFENSE MEDIA ACTIVITY (DEC. 8, 2016)

Amaani Lyle

WASHINGTON—As the presidential administration transition draws near, Pentagon acquisition chief Frank Kendall hosted his final Defense Acquisition Workforce awards ceremony today, recognizing individuals and organizations who distinguished themselves in the field for best practices, professionalism, and excellence.

Kendall, undersecretary of defense for acquisition, technology and logistics, helmed the ceremony in the Hall of Heroes, featuring Deputy Defense Secretary Bob Work as distinguished speaker, and Air Force Gen. Paul J. Selva, vice chairman of the Joint Chiefs of Staff, as distinguished presenter.

Better Business Through Data-Driven Policies

With several iterations since 2010 of the budget-minded acquisition program Better Buying Power, Kendall said the overarching objective was to develop data-driven acquisition polices to better measure their performance and understand their implications, making adjustments as needed.

"For the last four years we've put out an annual defense acquisition system report so we have been using data; we now have a good basis for the things we are doing and I expect that will grow and grow as more data is collected over time," he said.

Kendall said the data show that DoD has "moved the ball down the field," from "should-cost" initiatives, to affordability caps, to better contract deals and incentives for industry—acquisition.

According to DoD's comptroller office, the fiscal year 2016 acquisition funding request for the DoD base budget totaled $177.5 billion, which includes $107.7 billion for procurement funded programs and $69.8 billion for research, development, test and evaluation funded programs. Of the $177.5 billion, $77.2 billion is for programs that have been designated as major defense acquisition programs or major automated information systems.

Importance of Current, Future Readiness

Work shared Kendall's sentiments honoring the award recipients' many accomplishments, and described the DoD as

Frank Kendall, undersecretary of defense for acquisition, technology and logistics, left, presents members of U.S. Special Operations Command with a Bronze Award during a ceremony at the Pentagon, Dec. 8, 2016. Deputy Defense Secretary Bob Work, center right, and Air Force Gen. Paul J. Selva, vice chairman of the Joint Chiefs of Staff, participated in the event.
DoD photo by E.J. Hersom.

a large business. And, he added, since the end of the Cold War on May 12, 1989, "business has been booming."

"Since then, the United States has been at war more than it's been at peace; there is no other time in our history that is remotely like this," Work said. "The demands that we have placed on the uniforms, defense contractors, and government civilians in support of our nation's interests has been unbelievable … and the performance of our joint force is simply without peer."

Work also noted the importance of current and future readiness. "For us to always be ready for whatever unexpected mission we may be given, we must be thinking about the capabilities that the force will need in the future—we have to deliver the capabilities the force needs today."

2016 Workforce Individual Award Winners

- Requirements Management, Andrew Yee, U.S. Special Operations Command
- Acquisition in an Expeditionary Environment, Air Force Lt. Col. Bernie Beigh, SOCOM
- Auditing, Laura Michaels, Defense Contract Audit Agency
- Contracting and Procurement, Polly McCall, Air Force
- Cost Estimating, Mary Mertz, Office of the Secretary of Defense
- Earned Value Management, Denise Kerby, Missile Defense Agency
- Engineering, Paul Manz, Army
- Financial Management, Denise Mallett, Navy
- Industrial Property, Sharon Valle, Army
- Information Technology, Jacki Garner, Army
- Life Cycle Logistics, Air Force Lt. Col. Kelly Polsgrove, Air Force
- Production, Quality and Manufacturing, Navy Capt. Joseph Tuite, Navy
- Program Management, Robert Hurd Jr., SOCOM
- Science and Technology Manager, Matthew Meininger, Air Force
- Services Acquisition, Ashley Farrier, SOCOM
- Small Business, Christopher Harrington, SOCOM
- Test and Evaluation, Scott Wilson, Missile Defense Agency

2016 Workforce Development Award Winners

Large Organization Gold, Silver, and Bronze Winners, in order, are:

- 431st Supply Chain Management Squadron, Air Force Materiel Command, U.S. Air Force, Tinker Air Force Base, Oklahoma
- Army Contracting Command, U.S. Army, Warren, Michigan; and
- Defense Contract Audit Agency, Fort Belvoir, Virginia

Small Organization Gold, Silver, and Bronze winners, in order, are:

- Resource Management Division, Contracting Directorate, Air Force Life Cycle Management Center, Air Force, Wright-Patterson Air Force Base, Ohio;
- Airborne Anti-Submarine Warfare Systems, Engineering Division, Aircraft Division 4.5.14, Navy, Patuxent River, Maryland; and
- Special Operations Forces Acquisition, Technology and Logistics, SOCOM, MacDill Air Force Base, Florida

The USD Acquisition, Technology and Logistics Chairman's Award was presented to Navy Capt. John Bailey.

DoD Announces 2016 Phoenix Award Winner

DEPARTMENT OF DEFENSE, PRESS OPERATIONS (DEC. 9, 2016)

The Department of Defense announced the 2016 winner of the Phoenix Award for Maintenance Excellence on Dec. 6 at this year's Secretary of Defense Maintenance Awards ceremony. The Phoenix Award is presented annually to designate the single best maintenance unit out of six Secretary of Defense Field-Level Maintenance Award winners.

This year's recipient of the Phoenix Award is the 455th Expeditionary Aircraft Maintenance Squadron, 455th Air Expeditionary Wing, Bagram Airfield, Afghanistan. In FY 2015, the unit accomplished superior aircraft maintenance while partnering with 14 allied countries and more than 12,000 personnel in support of North Atlantic Treaty Organization's Operation Resolute Support to train, advise, and assist Afghan security forces and coalition partners. Furthermore, in support of Operations Enduring Freedom and Freedom's Sentinel, the 455th Expeditionary Aircraft Maintenance Squadron displayed its combat superiority when it generated 61,000 flying hours during the execution of 18,000 combat sorties, one of which destroyed the largest weapons cache in Afghanistan's Parwan Province history. The 455th Expeditionary Aircraft Maintenance Squadron's performance unquestionably demonstrates the unit's worthiness in being recognized as this year's best field-level maintenance unit in the Department of Defense.

Navy Scientist Selected as National Academy of Inventors Fellow

SPACE AND NAVAL WARFARE SYSTEMS CENTER PACIFIC PUBLIC AFFAIRS (DEC. 20, 2016)
Katherine Connor

SAN DIEGO—Dr. Stuart H. Rubin, a scientist at the Space and Naval Warfare Systems Center Pacific (SSC Pacific), who significantly advanced the fields of artificial intelligence (AI), machine learning, and deep learning, has been selected as a Fellow of the National Academy of Inventors (NAI).

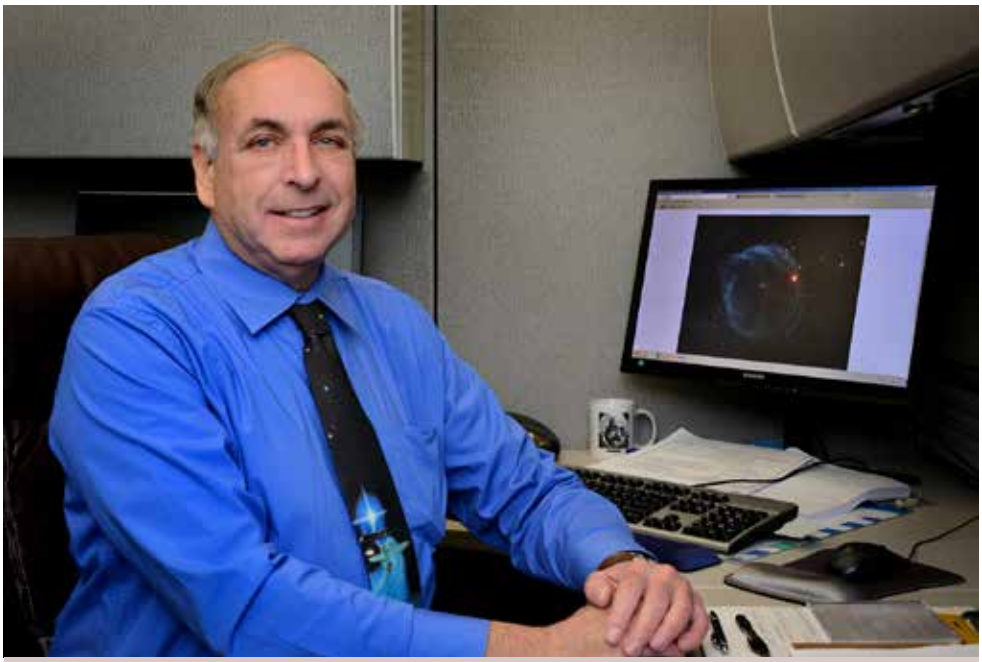
Rubin has 35 patents, with more than two dozen pending, and has authored or co-authored 300 refereed papers and four books.

Election to NAI Fellow status is the highest professional distinction accorded to academic inventors with a prolific spirit of innovation who have made tangible impacts on the welfare of society.

"It is a great honor and distinction to our center to have another SSC Pacific inventor elected to the rank of NAI Fellow," said Dr. Stephen Russell, Space and Naval Warfare Command chief technology officer, who was selected as a Fellow in 2015. "The Fellow candidates are nominated by technical peers, and are then vetted through a rigorous two-step selection process via a Fellows Advisory Committee and then a Fellows Selection Committee who look for outstanding contributions to innovation such as patents and licensing, significant impact on society, and support and enhancement of innovation."

Rubin, who holds master's degrees in both Systems Engineering and Computer Science, and holds a doctorate in computer science, developed, published, and is applying his "theory of randomization" to computer science, which laid the foundation for machine learning. Two decades ago he founded the Institute of Electrical and Electronics Engineers (IEEE), Information Reuse and Integration Conference, and he chairs the IEEE technical committee on Knowledge Acquisition in Intelligent Systems.

While the majority of his work and inventions are focused on artificial intelligence and knowledge-discovery systems, Rubin has patented ideas in a variety of fields, from laser-based poison gas detectors to a method for modulating a radio-frequency carrier wave for use in naval communications. His ideas have also contributed to the development of a machine capable of detecting anthrax spores regardless of their orientation, which has been adapted for use in a women's health setting to more accurately detect abnormal cancerous cells in Pap smears.



SAN DIEGO (Dec. 20, 2016). Dr. Stuart Rubin, scientist, at the Space and Naval Warfare Systems Center Pacific.
U.S. Navy photo by Alan Antczak

Rubin developed a machine-learning system capable of transferring knowledge from past inputs to predict current situations, which was used by the Naval Criminal Investigative Service to adaptively learn to complete police reports. He applied his Knowledge Amplification by Structured Expert Randomization (KASER) solution to diagnose faults with the F-16 radar system. He also abstracted randomization design principles to create an electrostatic atomizer, which uses existing jet fuel additives to increase the efficiency of fuel consumption, especially at takeoff.

His current research is focused on natural language learning in machines, software automation, computer vision, and advancing artificial intelligence, and he also prioritizes countering what he sees as an uninformed doomsday view of AI by highlighting its many benefits for naval applications, and for reducing the cost, improving the quality, and increasing the accessibility of education and medicine as well.

"Artificial Intelligence is not going to take over and become dangerous to humans, it's not in that position at all," Rubin said. "It's more like a lever—and it's the people that control the lever."

One of Rubin's guiding principles is the importance of being able to make mistakes and learn from them. He said this is what separates humans from robots, and is something he is working to develop in machines.

"If you are never given the latitude to make a mistake, you can never learn anything," he said. "Until we endow our machines with the capability of making mistakes, they will be limited in what they can learn. I think computers are going to become much more capable of doing things because they're going to have the ability to reason around uncertainty. They don't need to have perfect certainty and that's going to allow them to become far more capable. The KASER has empirically proven that."

Rubin joins an elite group of NAI Fellows including Dr. Russell. In October 2016, SSC Pacific became the first Department of Defense organization to establish an NAI chapter, inducting 36 scientists and engineers at its inaugural meeting.

"Through our NAI Chapter we hope to build on our existing spirit of innovation to create new capabilities to support the warfighter," Russell said.

Prior to his work at SSC Pacific, Rubin was a tenured associate professor of computer science at Central Michigan University, and an electronics engineer at the Department of the Army's Fort Monmouth, where he was awarded a U.S. Government Certificate of Merit for his work on Very High Speed Integrated Circuits (VHSIC).

Rubin will be officially inducted as an NAI Fellow on April 6, 2017, by Andrew Hirshfeld, U.S. commissioner for patents, and Paul Sanberg, NAI president.

For more information, visit http://www.navy.mil, http://www.facebook.com/usnavy, or http://www.twitter.com/usnavy. For more news from Space and Naval Warfare Systems Command, visit http://www.navy.mil/local/spawar/.

DoD Announces Award of New Advanced Tissue Biofabrication Manufacturing Innovation Hub in Manchester, New Hampshire

DEPARTMENT OF DEFENSE, PRESS OPERATIONS (DEC. 21, 2016)

The Department of Defense announced the award of a new public-private Manufacturing USA institute to Advanced Regenerative Manufacturing Institute (ARMI) today. This new institute will be the 12th Manufacturing USA institute established, with the Department of Defense now leading seven of the 12.

"The investments we are making in advanced manufacturing, including today's announcement, will ensure that the innovations needed to develop, manufacture, and commercialize cutting-edge processes and materials will happen right here, in America," said Defense Secretary Ash Carter. "They will provide important benefits to our warfighters and will help strengthen the economy that is the bedrock of our national security."

Headquartered in Manchester, New Hampshire, ARMI is part of continuing efforts to help revitalize American manufacturing and incentivize companies to invest in new technology development in the United States. The highly competitive process resulted in ARMI's selection to lead the Advanced Tissue Biofabrication (ATB) Manufacturing USA Institute. The award of $80 million in federal funding will be combined with over $214 million contributed by the winning consortium, made up of industry, state, and local governments, universities, community colleges, and nonprofit organizations located across the country. The ATB institute, with founding industrial and academic partners in New Hampshire, Massachusetts, Connecticut, Ohio, Wisconsin, Minnesota, Indiana, North Carolina, Florida, Tennessee, Texas, California, Colorado, Washington, Arizona, New Jersey, Pennsylvania, New York, and Maryland, seeks to organize the current fragmented domestic capabilities in tissue biofabrication technology and better position the U.S. relative to global competition.

Biofabrication is an innovative manufacturing industry segment at the intersection of biology-related research, computer science, materials science and engineering that is creating state-of-the-art manufacturing innovations in biomaterial and cell processing, bioprinting, automation, and non-destructive testing technologies for critical Department of Defense and novel commercial use. ARMI, Inc., will integrate the diverse and fragmented collection of industry practices and institutional knowledge across many disciplines to realize the potential of a robust biofabrication manufacturing ecosystem. Technologies ripe for significant evolution within the ATB institute include, but are not limited to, high-throughput culture technologies, 3D biofabrication technologies, bioreactors, storage methodologies, nondestructive evaluation, real-time monitoring/sensing, and detection technologies.

ATB joins the Manufacturing USA institute network, which is a bipartisan program that brings together industry, academia, and government to co-invest in the development of world-leading manufacturing technologies and capabilities. Each Manufacturing USA institute focuses on a technology area critical to future competitiveness—such as 3D printing, integrated photonics, or smart sensors. Across the Manufacturing USA institutes, the federal government has committed $860 million, which has been matched by $1.8 billion in non-federal investment. Together, the Manufacturing USA institutes are already enhancing U.S. competitiveness in advanced manufacturing—from helping Youngstown, Ohio, attract over $90 million in new manufacturing investments to its region and training 14,000 workers in the fundamentals of 3D printing for businesses, to supporting companies like X-FAB in Lubbock, Texas, in upgrading to cost-competitive, next-generation semiconductors and sustaining hundreds of jobs.

The ATB Manufacturing USA institute includes:

- Forty-seven industrial partners, including Abbott, Autodesk, Becton Dickinson, Celularity, DEKA Research & Development, GenCure, Humacyte, Lonza, Medtronic, Rockwell Automation, and United Therapeutics.
- Twenty-six academic and academically affiliated partners, including Arizona State University, Boston University, Cedars-Sinai Medical Center, Dartmouth College, Harvard University, Massachusetts Institute of Technology, Rutgers, Stanford University, the University of Florida, the University of Minnesota, the University of New Hampshire, Worcester Polytechnic Institute, and Yale University.
- Fourteen government and nonprofit partners, including FIRST, the State of New Hampshire, and manufacturing extension partnerships in multiple states.

For more information regarding this program overall and this institute in particular, visit https://www.manufacturingusa.com/.

Work, Kendall Honor Best in Acquisition

DEPARTMENT OF DEFENSE NEWS, DEFENSE MEDIA ACTIVITY (JAN. 7, 2017)
Lisa Ferdinando

WASHINGTON—Deputy Defense Secretary Bob Work and his acquisition chief, Frank Kendall, yesterday honored excellence in acquisition, innovation, and cost savings, hailing the work that achieved superior capabilities while sav-

ing taxpayer money and ensuring warfighters have the best available resources.

The 2016 David Packard Excellence in Acquisition and the Should Cost and Innovation Awards are extraordinary achievements that recognize the "best and brightest of acquisition" and of the Defense Department, Work told attendees of the Pentagon ceremony.

He noted the three teams receiving the Packard Award only represent a small fraction of the thousands who work in the acquisition field.

The Packard Award is the Defense Department's highest acquisition team honor. It is named after David Packard, a deputy defense secretary in the Nixon administration and co-founder and chairman of the Hewlett-Packard Company. The winners demonstrated superior program management and accomplishment in the successful execution of one or more of the Better Buying Power efficiencies and associated initiatives, Work pointed out.

The recipients of the 2016 Packard Award are: Project Manager Maneuver Ammunition Systems team, the Next Generation Jammer Increment 1 team, and the United States Special Operations Command's Acquisition Rapid Response Light Tactical Vehicle team.

'Should Cost' Recipient Saves Billions

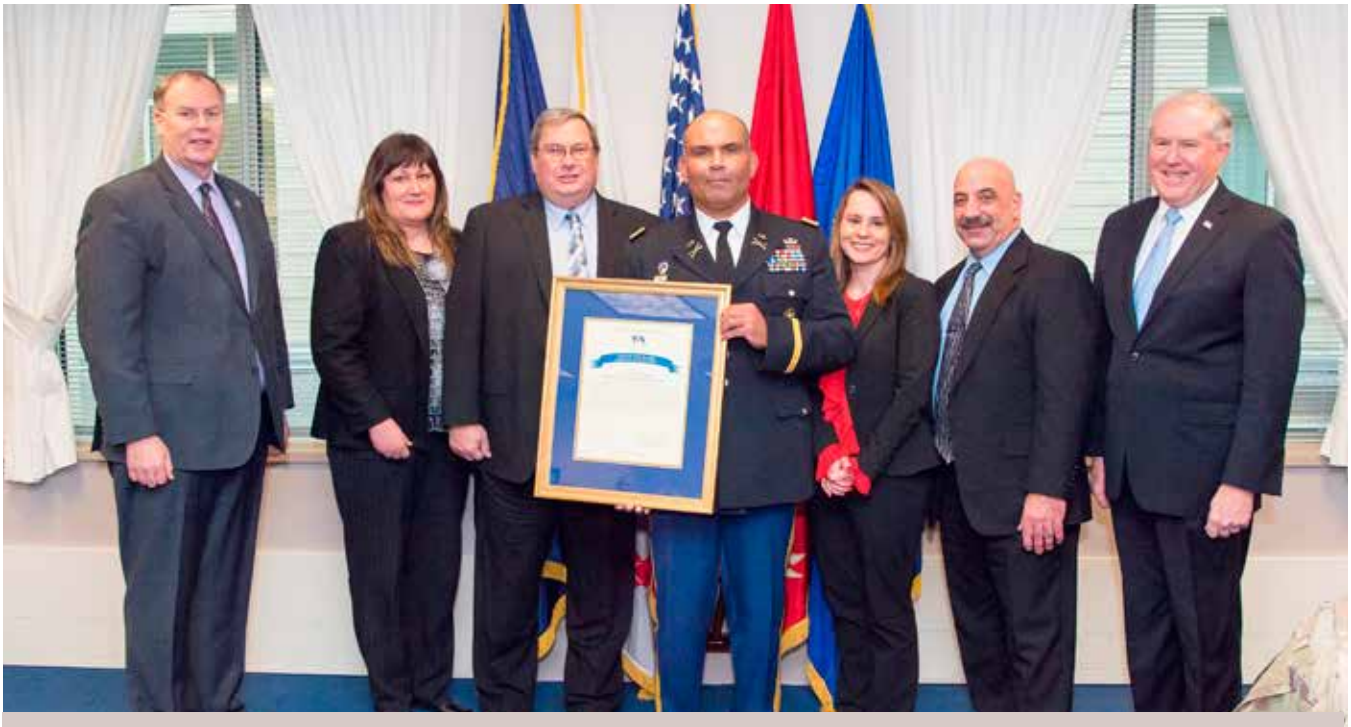
The Should Cost and Innovation Award recognizes organizations, groups, or teams that have displayed outstanding commitment, innovation, and results to should cost management.

Work pointed out the extraordinary achievements of the recipient of the Should Cost and Innovation Award—the Joint Program Office, Joint Light Tactical Vehicles team.

Its cost-saving initiative, competitive strategy, and vehicle design are projected to save $7.9 billion dollars across the end-stand of the joint light tactical vehicles, Work said.

2016 David Packard Award Winners

Project Manager Maneuver Ammunition Systems is presented the David Packard Excellence in Acquisition Award for its innovative Acquisition strategy and rapid delivery of non-DoD standard ammunitions (or NSA), to Iraq, Afghanistan, domestic, and other allied partners engaged in



Deputy Secretary of Defense Bob Work (left) and Under Secretary of Defense for Acquisition, Technology and Logistics Frank Kendall (right) are pictured with the Project Manager Maneuver Ammunition Systems Team winner of the David Packard Excellence in Acquisition Award, at the Pentagon in Washington, D.C., Jan. 6, 2017.

DoD photo by Army Sgt. Amber I. Smith

counterterrorism and other hostile domestic situations. The team realized the need to shorten delivery times of NSA in the fight against ISIL and the ongoing conflicts throughout U.S. Central Command's area of responsibility. The swelling demands on a limited supplier base were slowing delivery times to unacceptable levels. The ability to provide rapid NSA delivery was becoming critical to the United States National Security interests and our allied partners. Through an innovative systems contracts approach, coupled with the establishment of a global urgent supply, the team achieved greater agility and effectiveness that reduced NSA deliveries to a fraction of the time. Requirements with delivery times of 12–24 months were reduced to 6 months, and in some cases when partnering with other government agencies, to less than three months.

The Next Generation Jammer Increment 1 team is presented the David Packard Excellence in Acquisition Award for their revolutionary approach in the evolution of airborne electronic attack. Responsible for the design, development, and procurement of the Next Generation Jammer System, the team will equip future warfighters with a state-of-the art technology to address emerging electronic warfare gaps and ensure kill chain wholeness against growing threat capabilities and capacity. Handpicked as the pilot program in the Under Secretary of Defense for Acquisition, Technology, and Logistics Better Buying Power Skunk Works initiative, the NGJ Inc 1 team demonstrated unparalleled commitment by applying grassroots initiatives to develop this crucial capability. Using Should Cost management to incentivize productivity and reduce cost, the team achieved $1.2 million as a cost avoidance savings by modifying the pod design, and realized a $2.4 million cost savings when the program altered the pod structure requirement composition. The team's focus on speed to the fleet, improved affordability, and platform integration proved relevant as the increased jamming capability is critical to sustaining the future missions of the Navy, other Services, and international partners. With a recent $1 billion engineering and manufacturing development contract award, the team is one step closer to providing this pioneering radar jamming system.

The U.S. Special Operations Command's Acquisition Rapid Response Light Tactical Vehicle Team is presented the David Packard Excellence in Acquisition Award for leveraging the commercial marketplace, existing supply chains, and worldwide distribution networks and successfully accomplishing multiple tests, certifications, field assessments, and fielding activities in months versus years. The ARRLVT quickly and efficiently conceptualized an acquisition approach to leverage a commercial-off-the-shelf solution; conducted a series of combat evaluations to identify shortfalls; and rapidly modified, trained, and fielded a capability directly into combat areas of operations to collect real-time feedback. The LTATV provided small unit mobility, decreased soldier combat fatigue and physical injuries. In fewer than 180 days, the ARRLVT rapidly fielded an initial gasoline powered LTATV to Afghanistan and Iraq that reduced soldier physical burden while increasing mobility. Based on the evaluation success, the team quickly achieved internal air transport and airdrop certifications, expanding the utility of the LTATV for immediate operational employment. Concurrently, the team embarked on development of a diesel variant of the LTATV, which enabled the groundbreaking introduction of a fully tested, combat-ready, diesel-powered vehicle in only two years. That helped special ops forces in the field maneuver combat loads over long distances across treacherous terrain and severe climatic conditions. Ultimately, the 82nd Airborne Division Global Mission Response Force and the Marine Corps were able to accelerate procurement and fielding of LTATVs by leveraging SOCOM testing, certification, and contracting vehicles, enabling significant cost avoidance savings across the department.

2016 Should Cost and Innovation Award Winner

The Joint Program Office, Joint Light Tactical Vehicles is presented the Should Cost and Innovation Award for implementing should cost initiatives which were in alignment with Better Buying Power and resulted in significant cost savings. The Joint Program Office utilized competitive prototyping to understand relevant cost structures within a warfighter-defined performance trade space. Cost and performance data provided by the competitive prototyping initiative was used to develop an innovative source selection criteria, which enabled industry to make cost-informed design decisions. The winning offeror's proposal is anticipated to save $2.2 billion in life-cycle sustainment costs for vehicles procured on the current production contract. The ground-breaking source selection criteria positioned the program to achieve significant cost savings, control future life-cycle costs, and maintain effective competition within the awarded JLTV initial production contract and follow-on production contracts. In total, the competitive strategy and vehicle design are estimated to save $7.9 billion across the end-state of the JLTV fleet. JPO staff has worked with several offices to ensure the best practices used to develop the JLTV solicitation are documented for use across the department.

Embracing Opportunity: Additive Technology Used For Manufacturing

AIR FORCE RESEARCH LABORATORY (JAN. 9, 2017)
Marisa Alia-Novobilski

WRIGHT-PATTERSON AIR FORCE BASE, Ohio—It's a materials scientist's dream, but as some experts say, an en-

gineer's nightmare. For scientists and engineers at the Air Force Research Laboratory's Materials and Manufacturing Directorate, additive manufacturing, also known as 3-D printing, can be a powerful tool for rapid innovation.

Ultimately, it's a new way of looking at manufacturing across the materials spectrum and an area with challenges and opportunities that the Air Force is meticulously exploring.

"Additive manufacturing is a huge opportunity for us," said Dr. Jonathan Miller, a materials scientist and the additive manufacturing lead for the directorate. "It allows us to manufacture unique form factors; it provides the opportunity to add functionality and capability to structures that already exist. Essentially, it allows us to redefine manufacturing."

Traditional manufacturing methods developed during the times of the Industrial Revolution, when machines began to overtake the human hand for mass production. Many processes required material to be molded or milled away from a larger form to produce a specific design.

Additive manufacturing, by contrast, is defined by ASTM International as the process of joining materials together, layer by layer, based on 3-D model data. It increases design possibilities, enhances the speed of innovation, and offers an alternative for creating shapes closer to what an engineer might need, with fewer constraints.

"The biggest problem with conventional manufacturing processes is time," Miller said. "Manufacturing is an iterative process, and you never get a part 'just right' on the first try. You spend time creating the tools to manufacture a complex part and then spend more time when you realize an initial design needs to be modified. Additive manufacturing offers lower cost tooling and lower lead times. The early mistakes don't hurt you as badly."

Early days

Though additive manufacturing is receiving a lot of industry interest as of late, it is not new to AFRL. Research into this manufacturing capability for the Air Force started at the same time the concept of rapid prototyping emerged in industry back in the 1980s.

Rapid prototyping was based on the premise that if an engineer had an idea and wanted to make a shape, they could visit a shop and 'print' the object, usually out of plastic by a printer.

"The focus at this time was on creating functional prototypes, or objects that resembled a desired part, but the materials lacked the strength for even minimal use," Miller said.

Early additive processing used light to chemically react to specific regions in a volume of gel to build rigid, plastic parts. The technology further evolved to include fused filament modeling, wherein fibers of plastic thread were melted and joined together to form a new object. Additional powder-based processes made use of plastic flakes that were melted by a laser into a shape.

In the early 1990s, scientists learned that similar additive manufacturing processes could be used for generating metal objects. However, the technology at the time resulted in crude, large parts with poor surfaces. It wasn't until the late 2000s that laser technology matured sufficient to truly move forward in this domain.

"This spurred the additive revolution pursued today by the entire aerospace industry," Miller said.

Shift to Production Parts

While more affordable lasers and metal powder processes were helping scientists make better metal products, the 'glue gun' route to additive manufacturing of plastics became much cheaper. Small, inexpensive 3-D printing machines began to turn up in garages and schools, to the amateur engineers' delight.

"Collectively, these became a new way of thinking about how to make stuff," Miller said.

As additive manufacturing thinking evolved from being a way to develop prototypes to a method for actual production, the benefits and applications for the Air Force grew enormously, along with the potential for it to do even more. The manufacturing of customized parts and unique, complex geometric shapes at low-production quantities can help maintain an aging aircraft fleet. Custom tools, engine components, and lightweight parts can enable better maintenance and aircraft longevity.

"Additive manufacturing can address a multitude of challenges for us, and there is a big pull to implement these processes from the logistics community," Miller said. "The fleet is aging, and replacement parts for planes built 30 years ago often no longer exist. Rapid production of a small number of hard-to-find parts is extremely valuable."

However, the need to develop consistent, quality materials for additive manufacturing still remains a challenge that

AFRL researchers are working diligently to address. Engineers need to have full confidence in additive manufactured part alternatives as they implement them as replacements in aging fleets or as system-level enablers in new weapon systems.

"There are limits as to how the Air Force can use this technology and for what applications it will work best," said Miller. "That research is the basis of our work here."

Extension to Functional Applications

As additive manufacturing has matured over the past few decades, the field has broadened beyond plastic and metal parts.

Dr. Dan Berrigan, the additive lead for functional materials at the directorate, is exploring ways to use additive manufacturing processes to embed functionality into structure, such as by adding electronic circuitry or antennas on non-traditional surfaces. As the demand for flexible devices such as activity trackers and performance monitors increases, so does a need to power these sources organically.

"Additive processes enable us to deposit electronic devices in arbitrary shapes or in flexible, soft form factors," Berrigan said. "We are looking at different ways to make a circuit that can enable them to bend or adhere to new surfaces or geometries, such as on a dome or patch. Essentially, we are looking at ways to add capabilities to surfaces that already exist."

Conventional circuit fabrication requires the lamination of a series of conductive and insulating layers in a patterned fashion, resulting in a rigid circuit board. The electronic properties for these circuits are known and understood, and engineers are able to ensure that the circuit can conduct as intended based on these known concepts.

For 3-D printed electronics, a conductive material is divided up into millions of small pieces and suspended in a liquid that is then dispensed from a printer, explained Berrigan. After printing, those individual conductive pieces must maintain contact to enable electrons to move through a circuit and create power.

"The demand here is for low-cost, flexible electronic devices, and these direct-write, additive processes give the community design capabilities that we cannot achieve otherwise," Berrigan said.

Additive Challenges and Future Potential

Despite years of development and research into additive manufacturing processes, there are a number of implementation challenges that AFRL researchers need to address in order to enable greater Air Force benefit from the technology, both now and in the future.

Dr. Mark Benedict, a senior materials engineer at the Air Force Research Laboratory's Materials and Manufacturing Directorate, discusses the potential for additive manufacturing of aircraft components in metal. The complex geometry of the rocket nozzle benefits from the use of additive manufacturing due to its complex, specialized design.

U.S. Air Force photo by Marisa Alia-Novobilski

"Fundamentally, it comes down to a materials processing problem," Berrigan said.

The lack of standardized production processes, quality assurance methods, significant material variability, and reduced material performance are just some of the factors AFRL researchers need to overcome. Depending on the application, material performance can be related to the strength of a part. For example, the electronic properties of an additive manufactured circuit may be worse than those of ones traditionally manufactured.

"Understanding the safety, reliability, and durability of a part is critical for an aircraft. We know this for parts made through other processes, but we don't know this yet for additive," Berrigan said.

Another issue centers on basic materials compatibility.

"There are a lot of different interfaces in additive manufacturing, and ensuring that materials adhere to one another or that a part can support a certain stress or withstand a certain temperature—these are all challenges we need to address," Miller said.

The long-term goal, according to Berrigan, is for additive manufacturing to become a well-understood tool in an engineer's toolbox, so that unique components can be design-integrated into a system. It's difficult to go back in a system already built, he said, but additive manufacturing provides the opportunities to build in greater potential at the start.

"The long-term vision is to have functional and structural additive manufacturing to work more cohesively from the start. Rethinking systems-level design to incorporate functionality such as electrical wiring, sensors, or antennas is a potential that additive can help us address," he said. "When you build something by layer, why not introduce channels for sensors, cooling or other functions?"

AF Agency Helps 'Bring Life' to Mission Innovation

88TH AIR BASE WING PUBLIC AFFAIRS (JAN. 10, 2017)
Bryan Ripple

WRIGHT-PATTERSON AIR FORCE BASE, Ohio—Most people don't go out and buy a big ticket item, like a new vehicle, without doing a fair amount of market research first. It's logical to check out the competition, look into the performance record of each make and model over the last several years, determine the possible return on investment, and ensure the best price for the best performing car that fits the desired budget.

This is the mindset that the Air Force Installation Contracting Agency's Business Intelligence Competency Cell (BICC) promotes when it comes to operational acquisition. It may seem simplistic when taken at surface value, but what the BICC is doing within the Air Force is 'bringing life' to mission innovation. As a result, their practices and resources are sparking interest not only within the Defense Department, but among members of Congress and their staffs as well.

"We want to make sure our acquisition professionals are equipped with the best information and data out there, provide it in the most comprehensive form possible, and make it ultra-convenient for them to access," said Maj. John Sharkey, the BICC's lead and AFICA's Enterprise Sourcing Division deputy director. "When we do this, they can make the smartest decisions when spending taxpayer dollars. This way we're providing agility and innovation to directly align with the AFICA, Air Force Installation and Mission Support Center, Air Force Materiel Command, and Air Force missions while protecting limited budgetary resources."

As a result of this superb work, the BICC was awarded the 2015 Assistant Secretary of the Air Force (Acquisition), Acquisition Excellence Team Award for Continuous Process Improvement due largely to its development of business analytic tools such as the Air Force Business Intelligence Tool (AFBIT).

"Market research has always been a significant portion of our mission," Sharkey said. "Prior to the stand up of AFBIT, conducting spend analysis was a long and tedious process, an aspect that naturally served as a deterrent for acquisition professionals to engage in when going through the strategic sourcing process."

The BICC team, includes an operations researcher, contracting officers, program managers, and information technology specialists.

"Our daily workloads range from designing, manipulating, and modifying databases to developing, testing, and deploying algorithms for data consolidation and analysis. I'm not sure there is another team of its kind within our Air Force," Sharkey said.

Essentially, the BICC is designed to provide the Air Force's operational acquisition professionals with the proper research and data required to make smart, defendable, and cost-effective decisions when it comes to purchasing goods and services to enable the Air Force mission. This way, the Air Force is able to get the best bang for its buck and save money while doing so. In turn, these savings can then be redistributed to fund other areas of the mission whether it is for aircraft, weapons systems, installation support, or personnel needs, etc.

The BICC was established to not only aid in enterprise sourcing, but to prepare for the future.

"Once a decision for the proper way forward is determined for the implementation of Category Management within the Air Force, the BICC will serve as an integral piece," Sharkey said.

Category Management is a federally mandated initiative directed by the Office of Management and Budget, which requires every federal agency that wishes to acquire goods and services that fall under their 10 established, general categories, to adhere to the guidelines established by their corresponding agency, in accordance with the Office of Management and Budget's direction.

It is anticipated that Category Management will require much of what the BICC already has to offer; they have developed some cutting-edge tools and resources to make the process of obtaining market intelligence easier than ever. From references and templates, to data analysis tools, trackers and training, the BICC offers a wide array of products and services that are of benefit for any operational acquisition professional.

For instance, AFBIT is a tool that allows users to retrieve spend information and details about any commodity or service the Air Force purchases. For example, if a user was curious as to how many health care service contracts the Air Force executed last year, and the breakdown of those contracts; with a click of a button AFBIT enables a user to retrieve this data in seconds. Filters can also be applied to drill down to a particular major command, center, or installation.

"What used to take days, weeks, even months to obtain now only takes a matter of seconds with AFBIT. Again, we're aiming to equip the workforce with all the business and market intelligence it takes to make the smartest buy ... the right thing, at the right time, for the right price to get the biggest bang for the taxpayer's buck," Sharkey said.

"I believe the real value of AFBIT is that it's a force multiplier. It decentralizes business analytics and quickly arms the right subject matter experts in the field with the information necessary to make data-driven decisions," he said.

Looking forward to the future of the BICC, Sharkey said that once the Air Force determines a way forward with regard to Category Management, much of the BICC's time will likely be devoted to assisting category teams with their execution of Category Intelligence Reports. In the meantime, the BICC will continue to work to revolutionize the operational acquisition community by 'bringing life' to mission innovation.

DoD Announces Robotics Manufacturing Institute Award Recipient

DEPARTMENT OF DEFENSE NEWS, DEFENSE MEDIA ACTIVITY (JAN. 13, 2017)
Terri Moon Cronk

WASHINGTON—Manufacturing is vital to national security in many ways and particularly as a source of critical technology for the warfighter, Frank Kendall, undersecretary of defense for acquisition, technology and logistics, said today.

In the Pentagon Hall of Heroes, Kendall announced the Defense Department's award of its eighth department-led institute and the 14th Manufacturing USA institute to American Robotics, Inc., of Pittsburgh.

"Our adversaries and potential adversaries are designing weapons systems aimed directly at defeating U.S. capabilities," Kendall said, "particularly power-projection capabilities."

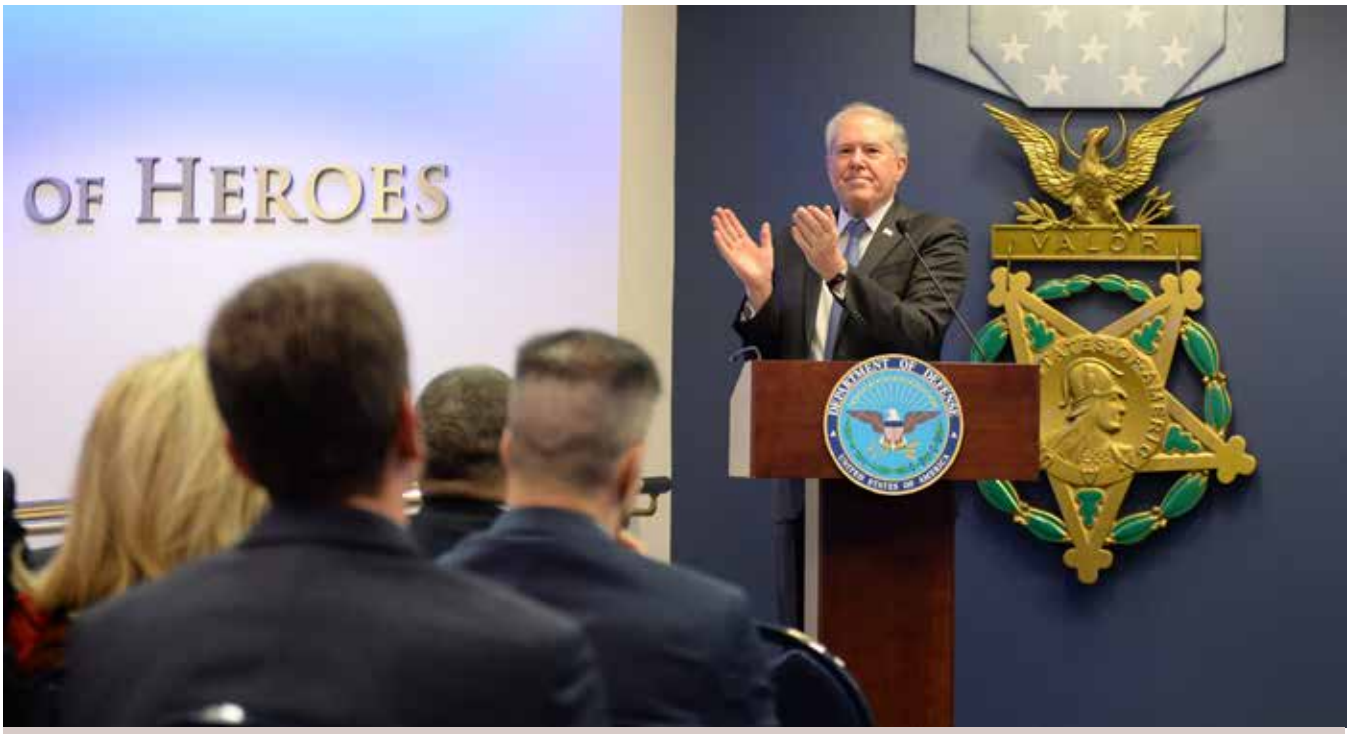
To maintain the United States' technical superiority, he added, "The department requires investments and advanced [technologies] to shape the capabilities of innovation ... and timely acquisition of our nation's defense systems for tomorrow. ... It's for that reason the Manufacturing USA Program has been so important to DoD."

Robotics are increasingly necessary to achieve the level of precision required for defense and other industrial manufacturing needs, but the capital cost and complexity of its use often limits small- to mid-size manufacturers from using the technology, DoD officials said.

Mission

The Advanced Robotics Manufacturing (ARM) institute's mission is to create and deploy robotic technology by integrating the diverse collection of industry practices and institutional knowledge across many disciplines, the officials said. Such disciplines include sensor technologies, end-effector development, software and artificial intelligence, materials science, human and machine behavior modeling, and quality assurance to realize the promises of a robust manufacturing innovation ecosystem.

Technologies ripe for significant evolution within the ARM institute include collaborative robotics, robot control—such as learning, adaptation, and repurposing—in addition to dexterous manipulation; autonomous navigation and mobility; perception and sensing; and testing, verification, and validation, officials said.



Frank Kendall, undersecretary of defense for Acquisition, Technology and Logistics, awards the 14th Manufacturing USA institute—the Advanced Robotics Manufacturing Innovation Hub—to American Robotics Inc., at the Pentagon, Jan. 13, 2016. The eighth DoD-led institute, the ARM institute joins the Manufacturing USA network in its collective effort to help revitalize American manufacturing and incentivize companies to invest in new technology development in the United States.
DoD photo by Marvin Lynchard

Sharing Cost
The new institute will operate on agreed-upon financial support of about $80 million in federal funding and $173 million from cost-sharing. ARM team is comprised of 123 industry partners, 40 academic institutions, and 64 non-profit and government entities, Kendall said.

"All of these team members will collaborate to meet future needs," he said, calling the consortium a true "team effort." Militarily, robotics will be used across DoD for entirely new modes of the human-robot teams to give U.S. warfighters a second-to-none fighting capability and protection on all battlefields and various forms of manned and unmanned teams, Kendall said. "[Such teams will] better enable robots and warfighters to safely and decisively conduct their missions."

Robotics technology can address present and future challenges on multiple DoD platforms, Kendall said.

Looking around the Hall of Heroes, which bears the names of Medal of Honor recipients from America's first war to present conflicts, Kendall said, "many of those Medals of Honor were awarded posthumously. We are very interested in robotics so we don't have to award so many Medals of Honor," he said.

The institute award to ARM, Kendall said, is about getting the most efficient means of robotics manufacturing to the warfighter.

"At the end of the day, it's all going to be about having fewer names on these walls so our people don't have to sacrifice themselves, and our people in uniform will have a significant advantage on the battlefield," he said.

Program Executive Offices Influence Army Success for Years to Come

U.S. ARMY AVIATION AND MISSILE COMMAND (JAN. 13, 2017)
Kari Hawkins

The message was clear at the Program Executive Office Town Hall on Jan. 11—employees working in the acquisition and sustainment of aviation and missile systems have a

significant impact on soldier capabilities that's proven time and time again to outlast generations.

Lt. Gen. Michael Williamson, principal military deputy to the Assistant Secretary of the Army for Acquisition, Logistics and Technology, expressed his appreciation to about 500 employees from the Program Executive Office for Missiles and Space, and the Program Executive Office for Aviation for their contributions that "allow soldiers to execute their mission and come home to their families." ASA(ALT) is the senior organization to the Army's program executive offices.

Using the example of a CH-47 Chinook helicopter that first went into production in 1961 and is planned to remain in service for another several decades, Williamson said PEO employees "affect generations. You build platforms that soldiers use today and probably will be used by those soldiers' sons and daughters. That's impact. That's a big deal. You have long-term significant impact that can never be forgotten."

Williamson, who is known most recently for transformational change related to talent management and career planning for the Army's PEO civilian workforce, reviewed how the program executive offices have and continue to make a difference for an Army that has had at least 180,000 soldiers—or 20 percent of its force—deployed at any given time during the past 15 years.

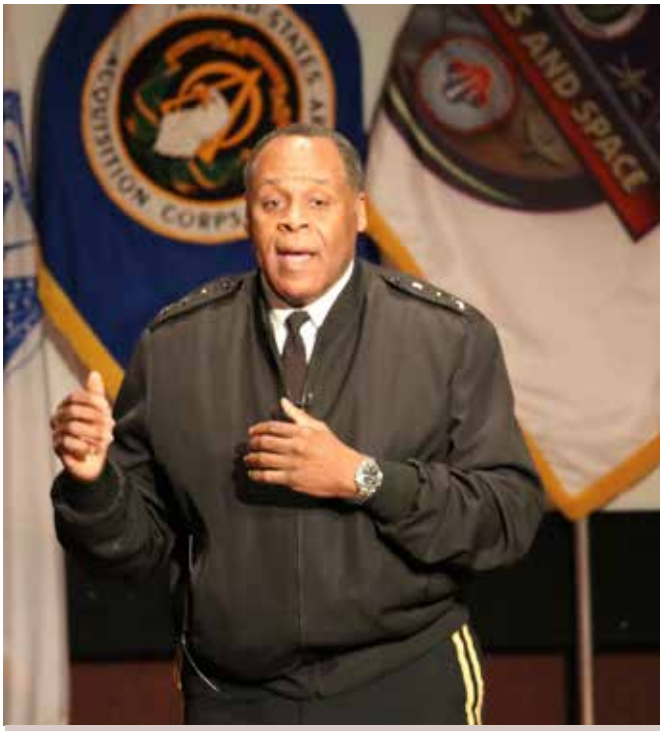
"That's a big chunk of your force. Twenty percent of our force is some place in a fight or preparing for a fight. For 15-plus years we have been in a fight," he said.

That's only been possible because those soldiers have been provided with the aviation and missile systems as well as other equipment they have needed because of the acquisition programs of the PEOs, Williamson said.

The three-star general said he finds the phrase "acquisition reform" annoying because he knows the PEO workforce is effective and efficient in designing, buying, fielding, and sustaining the Army's military systems.

"I don't think there is another country in the world that can do what we can do," Williamson said. "We are effective. We deliver capability to soldiers every single day. That's the effective part of the equation … You are delivering. History demonstrates that. What you've done during the past 15-plus years demonstrates that."

It's not one particular rule, regulation, or process that slows down the acquisition system, but an accumulation of rules, regulations, and processes that have stacked on top of each other and become a burden to PEO employees, he said.



Lt. Gen. Michael Williamson, principal military deputy to the Assistant Secretary of the Army for Acquisition, Logistics and Technology, speaks to employees at a Jan. 11 joint town hall for the Program Executive Office for Missiles and Space, and the Program Executive Office for Aviation at Redstone Arsenal.
U.S. Army AMCOM photo by Boutwell

PEO employees can expect changes in the world environment to affect and shift their mission focus in coming years.

"We're an Army that has focused on the counter-insurgency fight, on dismounted warfare, and on heavy use of aviation and intel systems," Williamson said.

Those shifts are causing Army leadership to rethink modernization programs, and to shift investment from soldier protection and capability to air defense, the aviation portfolio, and combat vehicle lethality, he said.

Williamson pointed out that more than 50 percent of the nation's discretionary funds goes to defense. While the size of the Army is sure to grow in the next few years, the cost of building up that Army—$13 billion to establish an additional brigade—could force some difficult decisions, he said.

"We have to maintain the mission, but we also have to maintain efficiencies," Williamson said. "What is our modernization strategy? Where should we focus efforts?

"Difficult decisions will have to be made. The only thing that makes us better and allows us to adapt to those changes is having the right people with the right experience with the right relationships."

Those "right people" are employees who have the talent, expertise, experience, and education to deal with challenges, and the leadership committed to developing the employees who work for them.

Referring to the evolution of the Army jeep of the 1940s to the High Mobility Multipurpose Wheeled Vehicle (HMMWV) and Mine-Resistant Ambush Protected (MRAP) of today, Williamson said, "We build an Army based on what we know. We equip it with what we have the ability to equip. Then there's change and your ability to react very quickly to whatever the threat is, to whatever the change is."

"The Department of Defense and our nation have to decide what we want to be for the next generations. We have to decide how we want to be positioned in the world," he said.

That decision will affect how the nation's military moves forward with modernization and investments. Regardless of those decisions, Williamson said success for PEO employees requires them to remain focused on two things: stewardship of the taxpayer dollar and delivering soldier capabilities so they can accomplish the mission and come home safely.

DLA Employees Honored with DACM Awards for Service to '4th Estate'

DEFENSE LOGISTICS AGENCY NEWS (JAN. 18, 2017)
John Bell

Two Defense Logistics Agency employees stood out as the only individuals to be honored at a ceremony recognizing the achievements of Department of Defense organizations not part of the military services—otherwise known as the 4th Estate in the training and management of DoD acquisition personnel.

Rebecca Sims, an instructor in general supply systems for DLA Human Resources, received the Director of Acquisition Career Management Award for Outstanding Achievement in Travel Management. Joy Mullori, DLA Acquisition's chief for acquisition workforce, audit and legislative affairs, is the first-ever recipient of the DACM Chairman's Award.

DACM Robert Daugherty, as the leader in charge of talent management, training, and certification for acquisition personnel presented the awards Jan. 10 during the 4th Estate Acquisition Career Summit, at the Defense Acquisition University, Fort Belvoir, Virginia.

Daugherty commended both DLA employees' contributions in a statement to 4th Estate senior leaders, including DLA Director Air Force Lt. Gen. Andy Busch.

"Joy demonstrates professionalism at all times and represents DLA well at Workforce Management Group and Functional Integrated Product Team meetings," Daugherty wrote. "She often has recommendations for the 4th Estate

Defense Acquisition Career Manager Robert Daugherty presents DLA's Joy Mullori the inaugural DACM Chairman's Award, Jan. 10, 2017, Fort Belvoir, Virginia.
Photo courtesy DoD DACM

community that lead to future improvements in processes and our online systems."

He also had high praise for Sims' work. "Rebecca's role in Travel Management has positively impacted the quality of DLA's DAWIA travel processing," Daugherty wrote. "Rebecca consistently processes her LOA approvals on time, avoiding last minute scrambles to process travelers. She also maintains the highest accuracy rate when approving individuals for TDY funds versus local—an amazing 98 percent!

"Rebecca's outstanding effort has helped the 4th Estate Travel Manager in processing DLA travelers seamlessly," he concluded.

The DACM noted both honorees' collaboration skills and professionalism. "The DACM office enjoys collaborating with Joy. She is a consummate team player and very deserving of recognition for her outstanding contributions to the Defense Acquisition Workforce."

He likewise commended Sims for her responsiveness and communication. "Not only is she a joy to work with, but she provides a level of professionalism and excellence that is admired," Daugherty noted. "She communicates openly and often with the 4th Estate travel manager and provides timely responses."

Receiving the DACM Chairman's Award "was truly a surprise," Mullori said. She noted DLA recently set up its own Acquisition Career Office, focused on developing DLA's acquisition workforce. "This is the first time we have had a full-time team dedicated to acquisition workforce development," she said.

Mullori Joined DLA Energy in 1994 at the Defense Fuel Office Mediterranean, Camp Darby, Italy. She was transferred to Fort Belvoir in 1996 as a contracting intern in the outstanding scholar program.

For Sims, the Outstanding Achievement in Travel Management Award was "a wonderful, yet unexpected, surprise," she said. "I'm truly honored. We both have a shared goal, and that's to provide exceptional service to those we support." Sims, also a major in the Army Reserve, started with DLA as a contractor in 2009 and worked as a general supply specialist instructor until 2014. In 2015 she joined DLA Human Resources as the DLA training DAWIA/DAU program manager.

The awards recognize DoD acquisition organizations for improvements and achievements in the training and certifications of their acquisition personnel, in accordance with the Defense Acquisition Workforce Improvement Act. The DoD 4th Estate comprises 37 organizations, each with its own training manager, and 26,000 acquisition professionals.

Face of Defense: Army Contract Specialist Supports Warfighters

DEPARTMENT OF DEFENSE NEWS, DEFENSE MEDIA ACTIVITY (JAN. 23, 2017)
Susan L. Follett

FORT BELVOIR, Va.—Army Capt. Raven Cornelius, the lead contract specialist for the U.S. Army Intelligence and Security Command, is good at saving the Army money.

At INSCOM, Cornelius manages contract actions from procurement to post-award for $7.6 billion in global intelligence support services contracts. Her work supports INSCOM, the U.S. intelligence community, combatant commands and Army service component commands, worldwide.

Supporting Combat Effectiveness

"My role is to ensure that requirements needed to shape the mission are available to the warfighter," Cornelius said. "Combat effectiveness is essential in the Army, and the work I do is an essential piece of the puzzle that enables mission success."

Cornelius said a group of mentors contributed to her career success. She noted that those mentors "pushed me to be the voice of the warfighter, and impact the military for positive change. A contract creates positive change to both the mission and the warfighter by allowing them to focus on their job."

Cornelius' mentors include Irvin Bonus, her former team leader, and now team leader for Regional Contracting Office–Hawaii, part of the 413th Contracting Support Brigade.

Crediting Mentors

Bonus "is an excellent mentor who challenged me to learn the Federal Acquisition Regulation, and understand the importance of contracting," she said.

Cornelius said she employed Bonus' advice, and consequently, earned a certification of federal contract management from the National Contract Management Association, along with her Level III Defense Acquisition Workforce Improvement Act certification in contracting to better understand the FAR.

Army Col. Kevin Nash, Cornelius' former commander, also has been an important part of her professional development, she said.

Nash's "leadership and mentorship were key in showing me what a military acquisition professional should be," Cornelius said. Cornelius said Nash helped her to master operational contract support and become a valuable business advisor to the command. Those skills, Cornelius said, improved her ability to write contracts as well as to provide briefings and solicit input at the senior level.

Perfecting Skills

Perfecting those skills and building a solid foundation are vital to success, Cornelius said.

"Contracting is evolving, so don't be discouraged if you don't grasp everything," she said. "Challenge yourself each day to learn something new, and assist with unfamiliar requirements. Learning opportunities are endless in this career, so take advantage of them."

She added, "Take pride in your career, and learn everything you can to be able to understand why acquisition is a mission enabler."

Cornelius' military career started right after high school. Following the path of her father, her "biggest hero," Cornelius joined the Army in 1999 as a private. She then left active duty and earned a bachelor's degree. She later returned to active duty to attend Officer Candidate School.

Successful Officer Candidate

Following OCS, Cornelius spent seven years as a Chemical Corps officer. In late 2011, she was working in the Operational Protection Directorate for 8th Army and was assigned to a team researching ways to measure and reduce warfighter exposure to radiation.

"As a result of our work, we identified and fielded radiation detection equipment to subordinate commands to allow for low-level radiation monitoring of more than 28,000 service members across the Korean Peninsula," Cornelius said.

That assignment, she said, also gave her the opportunity to meet people from the acquisition community.

"And I became very interested in that career field as a way to mitigate threats and provide products viable to the field," Cornelius said. She transitioned to the Acquisition Corps one year later.

"I have been exposed to many different levels of acquisition to understand why what we do is invaluable, and I've had the opportunity to work with different Services' components in multiple countries—and I have found every minute of it rewarding," she said.

Maintaining mission focus is the most challenging part of her work. "Sometimes the mission exceeds the existing capabilities," she said. "We face challenges in handling all the requirements in the time frame requested for each mission." The solution is old-fashioned, hard work, according to Cornelius.

"Longer hours—when they're needed—to be sure we complete the requirements needed to enable the mission," she said.

DCMA Employees Earn NASA Recognition

DEFENSE CONTRACT MANAGEMENT AGENCY PUBLIC AFFAIRS (FEB. 3, 2017)
Tonya Johnson

WINDSOR LOCKS, Conn.—Five Defense Contract Management Agency Aircraft Propulsion Operations Hamilton Sundstrand employees were recognized by NASA for making sure the space agency maintains its space readiness.

Navy Capt. Michael Huff, the APO commander, and Anthony Miles, his deputy director, presented the Space Flight Awareness Award to Steve Allen, Richard Barry, Daniel DeFranco, Dwayne Jolicoeur, and Jerome Tardy here Dec. 8. They are all quality assurance specialists inspecting various NASA product lines.

"To be an integral part of the NASA space program in support of the International Space Center has been the highlight of my career in DCMA," said Allen, who has worked for DCMA seven years. "I am proud to be a member of a great team working to achieve this important goal."

The employees were recognized for their achievement in supporting the Human Space Flight operations. On June 28, 2015, a SpaceX rocket exploded, and essential supplies and equipment headed for the International Space Station were destroyed. Three of the DCMA team members—Barry, Tardy, and Jolicoeur—worked with contractors to replace items, including water filtration beds for water production. Since the next supply mission launch was Aug. 6 in Japan that same year, the DCMA team had to work in a compressed timeframe to make sure the right items were procured quickly.

"They needed to generate replacement products quickly that were lost in the explosion and prevent the International Space Station from having to be evacuated for the first time in its history," said Kevin Bartol, director of DCMA APO Hamilton Sundstrand.

In addition, the entire team completed more than 970 government mandatory inspection points across more than 300 parts in 2015. The results of the effort led to a reduction of more than 150 GMIPs, which allowed the team to streamline their contract oversight to a more surveillance-based approach that maximized their quality assurance resources. Jolicoeur said he "takes great pride in supporting the space program."

"I have been with DCMA for two years," he said. "I transitioned after 25 years in the military as an aircraft electrician to DCMA as a quality assurance specialist in the NASA programs. I enjoy the responsibility of oversight with regard to sending quality hardware into space. This award means a lot to me."

Jolicoeur said everyone on the team pitched in to make sure the items were ready for the next launch. "After the rocket was destroyed and all the government hardware was lost, we knew we had to expedite the new hardware in a timely manner and make sure the process was fluid," he said. "I adjusted my work schedule to meet the demands of the schedule. Our office also put together a high-priority list for the smooth process flow of hardware inspection criteria to ensure all GMIP inspections were accomplished in a timely fashion. Seeing the end result and knowing that my oversight, as well as my colleagues, will assure that only safe, reliable hardware is shipped to the customer, is a satisfying task."

Bartol said his staff, NASA, and industry counterparts worked hard to get the requested items in about five weeks, just in time for the next cargo space mission.

"As in any successful relationship, communication is key," said Bartol. "It will determine the success or demise of any organization. We provide NASA feedback and encourage communication among programs to ensure consistent quality assurance, and engineering expectations and requirements.

"Our office is central to NASA's Human Space Flight program as we monitor operations of our contractor, Hamilton Sundstrand Space Systems International, which is responsible for products and services that support three NASA pro-

Five Defense Contract Management Agency Aircraft Propulsion Operations Hamilton Sundstrand quality assurance specialists from Windsor Locks, Connecticut, were recognized by NASA for making sure the space agency maintains its readiness. Dwayne Jolicoeur, Steve Allen, Richard Barry, Dan DeFranco, and Jerome Tardy received the Space Flight Awareness Award on Dec. 8.
Photo courtesy DCMA APO Hamilton Sundstrand

grams—the International Space Station, the Extra-vehicular Activity Space Operations Contract, and the Orion multi-crew vehicle. We have and continue to work closely with NASA's Johnson Space Center in Houston, Texas."

Bartol stated his team was committed and flexible during this timeframe in accomplishing the task.

"I'm extremely proud of the team as it is a true mark of professionalism that is demonstrative of the command at large," said Bartol. "These individuals are dedicated and professional, through and through. The quality assurance specialists that were recognized herein are exemplary of our agency's core values—service, excellence, and integrity. It's truly an honor to work with such a team of professionals."

But Bartol's team isn't the only group at DCMA that supports NASA.

"Other contract management offices across the agency also support other NASA centers, such as Goddard Space Flight Center in Maryland, the John H. Glenn Research Center in Ohio, and several other centers across the nation, each supporting research and exploration that contribute to greater knowledge of our planet, solar system, and the universe," said Bartol. "Our office maintains communications with the other [contract management offices] with whom we have delegations from to apprise them of matters accordingly. We all work together to support NASA."

Tardy, who has been a part of the DCMA team four years, said he enjoys his job and knows he is making a difference.

"Receiving the award from NASA is an honor," said Tardy. "Teamwork and communication are the keys to success. I enjoy knowing I have an important role in supporting NASA astronauts' safety aboard the International Space Station and future missions aboard the Orion Crew Exploration Vehicle."