NOTES FROM LEADERSHIP:

Vice Admiral David C. Johnson, Principal Military Deputy, ASN (RD&A)

I started as an Engineering Duty Officer (EDO) in 1982 and am the first non-Aviator to serve as the Principal Military Deputy, at least in recent history. Coming in as an EDO brings an interesting perspective to this job. For an Acquisition professional, this is a perfect fit. You work for the PhD professor of Acquisition, Sec. Sean Stackley, as well as with great people like Ms. Allison Stiller, Principal Civilian Deputy (PCD), and the DASNs. Having been a Program Manager (PM), a Warfare Center Commander, a Program Executive Officer (PEO), and now Principal Military Deputy (PMD), my career path has been a progression with increasingly broadening sightlines of how the business works and how you can make a difference—it’s extremely satisfying. As PMD, I’d like to share a few insights with our Acquisition Workforce.

First, when you get the opportunity to go to the field—a shipyard, warfare center, or aviation depot, either as a junior officer or a junior civilian, do so. The experience will be extremely valuable. It may be the only experience you get before coming to the Systems Commands, PEOs or the Pentagon. The deck plate experience teaches you things like how we repair ships, build ships, and deal with aircraft failure—that is real world work. As you get more senior, you will find yourself drawing on that experience more and more. You might find you’re the only person in the room that did go on a sea trial, worked to get a ship ready for undocking, or worked in an aircraft depot. These experiences provide skill sets you must work on when you’re in junior positions. By the time you reach senior level positions, it’s hard to go back and in fact you’ll be less effective if you haven’t had the experience. So, for the people coming up, I encourage you to do rotations. Get experience. Broaden your horizons as much as possible. Civilians must be a little more proactive and there are ways that can be accomplished. There are programs like the Commander’s Development Program, as well as internships and rotations. You can also go to a contracting office or a SUPSHIP for a contract negotiation or work-up to delivery. The point is to get out of your office and learn. You can shadow people and learn what they do. Take active management of your career. And, this is not just for PMs; if you want to be a Contracting Officer,

Continued on page 15

Tactical Aircraft Program Executive Office tailors capabilities to meet warfighters needs

From launch to recovery—and at all points between—PEO (T) strives to provide the fleet affordable, timely solutions.

by Michael J. Land, PEO (T)

NAVAL AIR SYSTEMS COMMAND, PATUXENT RIVER, Md. – An **EA-18G Growler** is catapulted from an aircraft carrier deck in the Western Pacific Ocean. Half a world away, an **AV-8 Harrier** lofts from an expeditionary airfield in Afghanistan. Their respective routes and whereabouts are tracked by air traffic management systems. Their protection systems are armed, ready to defend against an attack. Nearby, at a prudently safe distance off, an airborne command and control platform “quarterbacks” the missions. **F/A-18 Super Hornets**, the Navy’s primary strike fighter, armed with air-to-air missiles, populate an afloat carrier air wing; their trained pilots ready to launch.

Eleven program offices for tactical aircraft and the information, tactical data, airborne electronic attack, protection and flight training systems, and more, comprise the portfolio of the Program Executive Office for Tactical Aircraft Programs, PEO (T).
PEO (T) flies in tight formation with other PEOs in support of the ASN (RD&A) mission to “provide weapons, systems, and platforms for the men and women of the Navy/Marine Corps that support their missions and give them a technological edge over our adversaries.”

PEO (T) is charged with all aspects of life-cycle management of the more than 45 Acquisition Category-level (ACAT) programs spread throughout its 11 assigned program offices, and reports to the Naval Air Systems Command (NAVAIR) commander for planning and execution of in-service support, and to the ASN (RD&A) for Acquisition-related matters.

“PEO (T) is at the center of challenges Naval Aviation faces for the next 20 years,” RDML Mike Moran told his staff at an event in June. Moran assumed his duties in December 2015. Prior to this, he commanded the Naval Air Warfare Center Weapons Division, Naval Air Weapons Station China Lake, California. The naval aviator flew the P-3C Orion, and readily looks to his experienced staff to be “active agents” in ensuring program success. “[You] are enablers.”

Program Executive Office leaders are focused on executing the PEO’s mission: Provide the fleet with what they need, when they need it, and at a cost they can afford. This comprises tailored and speedily delivered capability. “We must expedite how we provide products and services to the fleet,” Moran said. These services range from support for legacy F/A-18 Hornets to the Next Generation Jammer; from air-to-air missiles to precision approach and landing systems; and tactical data links to carrier onboard deliveries.

Pointing to the Maritime Accelerated Capabilities Office (MACO) model, Moran highlighted the critical importance of delivering quickly to the fleet to meet the Warfighter’s requirements. MACO “will concentrate requirements, technical, and Acquisition expertise on high-priority projects to fast-track their development and fielding,” said Chief of Naval Operations, ADM John Richardson in a statement before the March 1 U.S. House of Representatives Committee on Appropriations’ Defense Subcommittee.

Back in the Philippine Sea, as the C-2 Greyhound tail hook catches the wire, its turboprop engines slow to a stop. Its aircrew records another successful Carrier Onboard Delivery (COD) mission transporting critical cargo so Sailors can accomplish their jobs.

Likewise, PEO (T) is committed to delivering solutions to the fleet when they need them -- in a way that contributes to producing a Naval Force ready for decisive combat operations at sea -- for maritime superiority that protects America and preserves her strategic influence.
Demonstration showcases AIM-9X joint-service venture

*Air-to-Air missile repurposed for surface-to-air use*

by Cindy Mattingly, Air-to-Air Missile Systems Program Office (PMA-259) Communications

NAVAL AIR SYSTEMS COMMAND, PATUXENT RIVER, Md. – Integration of the joint Navy and Air Force AIM-9X Sidewinder Air Intercept Missile with the Army’s Multi-Mission Launcher (MML) hit the mark as the teams completed a successful live-fire engineering demonstration at White Sands Missile Range, New Mexico, this spring.

During the Indirect Fire Protection Capability (IFPC) conceptual demonstration, missiles were launched from the MML, locked-on, and intercepted both an unmanned aerial vehicle and a cruise missile. AIM-9X is the fifth generation Sidewinder and is an Acquisition Category-level (ACAT) I program. The U.S. Navy leads the joint program with the U.S. Air Force.

AIM-9X Block II’s mission is to destroy low and high altitude, high speed enemy targets in an electronic countermeasures environment. It is the most advanced short range air-air missile in the U.S. inventory, capable of using its datalink, thrust vectoring maneuverability, and advanced imaging infrared seeker to hit targets 360 degrees around the launching platform.

The Navy declared initial operational capability of the AIM-9X Block II in the spring of 2015, and is currently in Full Rate Production (FRP). It is estimated to reach Full Operational Capability (FOC) in the fall of 2016.

“We’ve proven the increased capabilities of the AIM-9X Block II, and we are working with Raytheon to get them into the hands of our warriors as quickly as possible,” said U.S. Navy Air-to-Air Missile Systems Program Office (PMA-259) program manager CAPT Jim Stoneman.

AIM-9X Block II “will be the baseline effector for the U.S. Army Indirect Fires Protection Capability Increment 2, Block 1 making AIM-9X a true dual use missile, effective in either air-to-air or surface-to-air applications with no modifications required to the missile,” Raytheon wrote in a September news release.

“Working closely with our industry partner and the Army, the PMA-259 team established a first-of-its-kind surface-to-air missile capability,” said CAPT Jim Stoneman, Air-to-Air Missiles (PMA-259) program manager. “We are thrilled with the outcome of the live-fire as it solidifies the repurpose of the missile for use in a surface-launch role. The demo is a testament to the fact that the missile and launcher integration will be an affordable game-changer in future wartime conflicts, and will greatly increase mission effectiveness against aerial adversaries.”

“We are fully integrated with AIM-9X and Longbow (Hellfire). This is a monumental effort by our PEO family,” Army COL Terrence Howard, Cruise Missile Defense Systems Project Office, PEO Missiles and Space was quoted by Scout Warrior, a news outlet “aimed at providing engaging, substantial military-specific content covering a range of key areas,” according the website.

The event scenarios validated the lethality of the AIM-9X Block II Sidewinder missile in the surface-to-air arena and against smaller target sets, adding to the weapon’s performance portfolio. Prior to the AIM-9X IFPC engineering demonstration, it was capable of being launched only from aircraft to include the Navy’s F/A-18 Hornet and Super Hornet, the Air Force’s F-15 Eagle and F-16 Fighting Falcon, and various international partner aircraft.

“These live fires are a major accomplishment and significant step forward for the Army’s IFPC program and the AIM-9X missile,” said CDR Rob Betts, PMA-259 AIM-9X Block II and IFPC military lead.

“The Army continues to make extraordinary strides in the development of their IFPC system, and the AIM-9X team is honored to support them. We look forward to continuing our relationship with the Army as they utilize the AIM-9X in more advanced surface-to-air scenarios.”

The AIM-9X air-interceptor missile is 119 inches in length, weighs 186.2 pounds and serves to detect, acquire, intercept and destroy a wide range of high-performance airborne and surface threats.

The next step for the AIM-9X IFPC is a Milestone B decision scheduled for summer 2016 which signifies the end of the Technology Maturation and Risk Reduction phase. The IFPC program is expected to enter the Engineering and Manufacturing Development phase shortly thereafter, and is scheduled to reach Initial Operating Capability early 2020.
Darden Graduate School of Business in Charlottesville, Va. I, and 51 of my classmates, were treated to, and challenged, in an executive education experience like no other, and came away with a deeper understanding of the structure and strategy of our industry partners. Having served in the Acquisition community for a little more than a year, I've had the chance to interact and negotiate with several large defense contractors. Throughout these business dealings, my viewpoints have been shaped by a communal skepticism of such corporations. This is the bias that is sometimes perpetuated, that defense Acquisitions is us-against-them, that defense corporations put profit ahead of the nation’s defense priorities. This is the bias and simple perception with which I walked into Darden.

The goal of the course, according to Elliott Branch, Deputy Assistant Secretary of the Navy Acquisition and Procurement (DASN (A&P)) is simple. “We send you to DAU [Defense Acquisition University] to teach you skills; we send you to Darden to teach you judgment.” It was immediately clear that during the next 19 days, the perceptions I have in my interactions with industry would change.

The NUIC class makeup consisted of Navy Acquisition Contracting Officer (NACO), Integrated Logistics Support (ILS) and Business Financial Management (BFM) Interns, mostly active duty, from all over the country. These Acquisition professionals, drawing upon their experience working in major systems commands, such as Naval Sea Systems Command (NAVSEA) and Naval Air Systems Command (NAVAIR), contributed and collaborated throughout the course. This reflects a pillar of Darden philosophy … that we as students will learn as much from each other as we will from the faculty.

A common murmur heard amongst Department of Defense (DoD) personnel concerning the value of training and schooling is, they often find it unrelated to their specific efforts. Not only does the NUIC draw strong, direct ties to our work as Acquisition professionals, it goes well beyond. Through an exhaustive examination of the financial realities and cost drivers of Corporate America — the concerns of various stakeholders, the markets in which they operate and the ties that bind them all — we laid a foundation in business from which to make insightful decisions for the Navy for years to come.

The curriculum at Darden is wide-ranging and rigorous, with just a few of the topics listed here …

- Strategic Challenges in the Defense Industrial Base
- Cost Allocation Systems
Defense travel system for DAU

by Chris McKelvey (NACC)

DON is in the process of transitioning to the Defense Travel System (DTS) for Defense Acquisition University (DAU) resident course travel. The Navy Acquisition Workforce will benefit from the use DTS for their DAU travel, as the system is proven to be customer-friendly, timely in settlement and payment, has better administration functions than our current methods. It is also familiar to most travelers as it is used at their parent commands as the normal tool for official travel.

As with all change, making such a move has its challenges and the Naval Acquisition Career Center (NACC) DAU Registration Team is developing “DTS for DAU” to ensure a smooth transition. Utilizing the “Cross Org Line of Accounting” process allowed by DTS, the NACC is “piloting” use of DTS for three courses during the fourth quarter of fiscal year 2016 (July – September); the courses are CON090, PMT352B, and PMT401. These courses were chosen as they are of long duration (three weeks or more) and normally involve fairly large fiscal settlements. This also targets a relatively manageable pool of travelers (approximately 80) making it feasible to implement, administer, monitor, learn and adjust as necessary to refine and improve the process before full implementation.

Current procedures are, upon registration for one of the three pilot courses, the traveler will receive notification of their travel eligibility. Then, 45 days prior to the class start date, eDACM will send the traveler an email directing them to log into DTS to create a new authorization/order. Between registration and receipt of this communication, the NACC DAU Course Manager/Registrar will work ‘behind the scene’ to create a cross-org funding line for each particular traveler in DTS.

All applicable policies of Navy DAU Travel remain in effect (Cost Effective Location, DoD Pilot Lodging Program, local vs centrally funded travel, etc.), as documented in the “Travel Procedures for Navy DAU Travel” published in eDACM.

45 days prior to class start and upon notification by eDACM, the traveler will go into DTS and create their travel request, using the specified appropriate DAU Travel Funding via the “CROSS ORG LOA” drop down on the DTS “Accounting” Tab instead of the normal local command Lines of Accounting.

The traveler will submit their travel request which will be routed, by means of the Cross Org LOA, to the NACC for review and approval. Once approved, the traveler will be informed by DTS that their orders are available for viewing/printing.

Upon completion of travel and within five days of return, the traveler will go back into DTS and create their Travel Voucher; it will be routed again to the NACC for review and approval, and then to the Defense Finance and Accounting System (DFAS) for payment. The plan is to review the Lessons Learned of the Pilot and progressively implement DTS for DAU across the entire spectrum of DAU Resident Courses. As with all DAU Travel, close coordination and communication between the traveler and their NACC DAU Course Manager/Registrar is the key to a successful and smooth travel settlement experience.

Logistics developmental employee completes rotational assignment at PEO(T) PMA 231: E-2/C-2 Airborne Tactical Data System Program

Charrelle Johnson, a Naval Acquisition Development Program (NADP) logistics employee stationed at NAS Patuxent River, recalls her experience working in the E-2/C-2 Airborne Tactical Data System program office (PMA-231) at Naval Air Systems Command (NAVAIR) headquarters earlier this year. PMA-231 is responsible for providing the E-2C Hawkeye, E-2D Advanced Hawkeye, and the C-2A Greyhound fleet with Acquisition strategy, logistics and sustainment solutions in support of the warfighter’s mission.

The C-2 Greyhound aircraft provides Carrier Onboard Delivery capability to our fleet. The E-2 Hawkeye is an all-weather, carrier-based airborne early warning command and control aircraft that provides airborne surveillance, tracking and battle space management. “Working in a program office provides a holistic view of the product and its capabilities. You see the technology up-close, understand its purpose, and how it performs in the battle space environment.”

“Working, even for a short period, in a program office is an eye-opening experience because not only do you become very familiar with the design and capability of a specific product but you also get to participate on and interact with the integrated product teams (IPTs), often including members from industry, and understand how their work influences product acquisition and sustainment.”

While working in PMA-231, Charrelle was assigned to monitor and gather data for failed components for landing gear. She recalls learning Defense Logistics Agency (DLA) processes involving material ordering, handling and processing, bill of materials, component scheduling, demand forecasting, retrieving necessary data from the appropriate sources, and coordinating updates and/or changes to the data.

“I got to work directly, often one-on-one, with Subject Matter Experts (SMEs), whose depth of knowledge added significant value to the whole experience.” The DON NADP not only provides the opportunity to receive specific task training but you also get to work closely with experts in the field. “I strongly encourage other developmental employees to take advantage of the people around you, get to know them, and what they do daily on their job. It will help you grow in the long run.”
From the DACM’s Desk

The DON Acquisition Workforce Strategic Plan and the Defense Acquisition Workforce Development Funds

On May 12, Ms. Allison Stiller, PCD, sent out the DON Acquisition Workforce FY 16-22 Strategic Plan. If you have not seen it, I encourage you to download it from http://www.ncc.mil/rda/Workforce/Pages/StrategyPolicy.aspx under DON AWF Strategic Plan (FY 16-22). It is not very long and it should not take too long to read. The plan is not meant to be a document that is complicated or put on a shelf and never looked at again. Our new plan will set us on a course to deliver an improved, forward thinking Workforce that is well-managed, highly trained and fully qualified. As a team, we will focus on three strategic goals:

- **GOAL 1: Energize the Workforce.** Connect people to the Product and Mission. There is not a more noble mission than to support the men and women who are protecting and serving our nation. The Acquisition Workforce is grounded in the values of integrity, trust, diversity, teamwork, dedicated service, and excellence and is dedicated to that mission.

- **GOAL 2: Focus on Professional and Technical Excellence.** Deliberately manage and match capability needs with professional and technical excellence. We have some of the most complex equipment and systems in the world. It demands education, training and hands on experience.

- **GOAL 3: Reinforce Responsibility and Accountability.** All work is performed through people. The values of integrity, trust, diversity, teamwork, dedicated service and excellence are the foundation of our culture that must be sustained to ensure responsibility and accountability.

For the DON Acquisition Workforce, having the right people, in the right job, at the right time will translate to effective and efficient execution, delivering the finest warfighting capability in the world at an affordable price.

The Defense Acquisition Workforce Development Funds (DAWDF) are funds set aside by Congress to, as the name implies, develop the Acquisition Workforce. Development of the Acquisition Workforce can take many forms. The most well-known are the Defense Acquisition Workforce Improvement Act (DAWIA) courses offered by Defense Acquisition University. However, much of this training is targeted at ACAT I programs and a lot of people strive to become Level III certified. However, not everyone in the Workforce needs to be trained at Level III. Your first line supervisor may be reassessing the level of certification needed for your job and looking at other training and education that is more relevant to your current position and your long-term career goals. For instance, in your position, you may need some highly-technical training in radar technology or modeling and simulation. This type of training is not available through DAU. Additionally, if you are a contracting officer, it may be time to get a Master's Degree from Naval Post Graduate School in Contracting. For these situations, DAWDF may be available to pay for the training and travel.

With the use of DAWDF, there are even more opportunities today to get more in-depth education and training. For instance, much of the coursework at NAVAIR University, https://navairu.navair.navy.mil/, was developed using DAWDF. Other Systems Commands have similar opportunities. Please work with your supervisor and your chain of command to determine the right level of training and education for you.

As we move into the planning stage for FY 17, SYSCOMs and each National Lead for each career field will be looking at how to best implement the strategic plan and use DAWDF smartly. For example, under Goal 1, DAWDF may be used to send new Acquisition Workforce members to a missile plant, test range or shipyard to understand how the product is produced and tested. Under Goal 2, a National Lead could decide that it is important to have people with an understanding of a particular technology that is only available in industry and request DAWDF to hire an expert to develop the capability internally. Under Goal 3, by law, the Program Manager is responsible and accountable for the program. Simultaneously, the designated Engineer is responsible for ensuring the technical decisions and trade-offs evaluated and the Contracting Office is responsible for the contract. Together, they must work as a team grounded in integrity and trust. A National Lead could request DAWDF funds to train the entire Program Office Team (PM, BFM, Contracting Office, Engineer, Logistician, etc.) as a cohort to build trust and teamwork to ensure the lines of authority and responsibility are well understood.
Marine Corps marvels minds during largest US STEM festival

“Marine Corps Systems Command wanted to come inform students and adults alike about the science and engineering that goes into developing Marine systems and equipment,” said Mike Ferraro, engineering competency manager for Systems Engineering, Interoperability, Architectures and Technology, or SIAT, at MCSC. “We incorporate STEM education by discussing how each item works.”

As Ferraro spoke, a group of students gathered around a dog-like robot designed by Jack Ware, an engineer in SIAT. The robot opens its mouth and reaches out for a treat when it senses hand motion.

“The robot is so scary at first,” said Sophia, an elementary school student from Takoma Park, Maryland. “It’s like he wants to bite my hand!”

Community outreach events like the science festival offer MCSC experts a chance to engage students and build their STEM exposure with hands-on learning activities that incorporate military-relevant content.

“I really like how the conference is interactive, and you can actually touch stuff,” an Arlington Elementary School student said.

One boy at the MCSC booth, while looking through the Medium Range Thermal Bi-oculars at silhouettes of passersby, counted aloud, “zero, one, two…BOOM!” The MRTB allows unit leaders to locate targets in all lighting conditions, including total darkness and at times when vision is obstructed by smoke, fog or sandstorms up to one mile away.

MCSC engineers rely on events like the USA Science and Engineering Festival to inspire youth to pursue careers in STEM as well as educate them about the Marine Corps mission.

“The kids really love touching and trying the gear on,” said Brian Corner, research anthropologist with MCSC’s Marine Expeditionary Rifle Squad Team. “Testing out what we have helps the kids understand what Marines use each day. It also integrates human science with technology so they can understand the connection.”

This article was originally published on http://www.marcorsyscom.marines.mil.

by Mathuel Browne
MCSC Office of Public Affairs and Communications
WASHINGTON, DC - Science was on the minds of attendees of the fourth USA Science and Engineering Festival April 14–17 at the Walter E. Washington Convention Center in Washington, DC.

As the largest science festival in the U.S., the event features nationwide contests and school programs to advance and inspire science, technology, engineering and math education in the next generation of scientists and engineers. This marked Marine Corps Systems Command’s (MCSC) second year participating in the festival as part of an ongoing effort to partner with other government agencies, academic institutions and private industry to improve STEM education in the United States.
Department of the Navy recognizes top scientists and engineers with Dr. Delores M. Etter awards

from Navy Office of Information
WASHINGTON (NNS) -- The Department of the Navy recognized 17 of its top contributors to basic and applied science and engineering from around the country June 22, 2016. In a Pentagon ceremony, ASN (RD&A) Sean J. Stackley joined the former ASN (RD&A) Dr. Delores M. Etter in recognizing naval teams, individual scientists and engineers for their achievement, professionalism and technical excellence for the year 2015. The award recipients are part of the 36,000 professionals in the Department of the Navy's science and engineering community.

"They are critical links in the long unbroken chain of technical giants who have dedicated their talents to ensure that our Navy and Marine Corps is the most capable fighting force in the world," said Stackley. One winner this year is Dr. Christopher J. Weiland from the Naval Surface Warfare Center Dahlgren. Weiland was recognized in the Emergent Investigator category for augmenting naval gunfire capabilities by using Unmanned Aerial Vehicles as additional shipboard sensors. His project eliminates risks in training scenarios and allows U.S. warships to quantitatively train and score gun crews anywhere in the world. "These are game changing technologies and developments," Stackley added, "which today's award winners have brought forward to ensure that the next generation of Sailors and Marines will have that same technology advantage on the battlefield that today's generation commands."

The annual science and engineering awards program, named for Etter, was established in 2006 to recognize the excellence of the Department of the Navy's highest performing scientists and engineers who have made significant contributions in their fields, to the Department and to Sailors, Marines and the future Fleet. Recipients are nominated by their respective commands and evaluated based upon the technical or scientific merit and the operational impact of the individual or team's accomplishment.

Below are the 2015 Dr. Delores M. Etter Top Scientists and Engineers award recipients being presented their awards by Secretary Sean J. Stackley ASN (RD&A) and Dr. Dolores Etter.

Individual Excellence Category

Mr. Jeremy Abshire, Naval Air Warfare Center Weapons Division, led a multidisciplinary team composed of government and industry members in the development and maturation of revolutionary propulsion technology. He integrated four advancements that included a highly loaded grain wired end burning rocket motor to significantly improve the kinematics of the Advanced Medium Range Air-to-Air Missile system.

Dr. Kimberly Cipolla, Naval Undersea Warfare Center Newport Division, led a team of researchers to develop a first ever thin-line vector sensor towed array. Her contributions across towed array basic and applied research are a strategic key to programs that form the basis for a physics-based understanding of the signal response and self-noise characteristics of vector sensors and conventional hydrophones.

Mr. Dion Garner, Program Executive Office for Integrated Warfare Systems, led the Air and Missile Defense Radar (AMDR) program to incorporated technologies that will enable the surface Navy to detect, track and evaluate advanced air and missile threats under challenging natural and man-made electromagnetic environmental conditions at twice the range of the existing radar.

Mr. Stephen Greineder, Naval Undersea Warfare Center Newport Division, was instrumental in establishing a new capability and mission area supporting Information Dominance, Cybersecurity, and Maritime Domain Awareness related to the protection of critical infrastructure. These capabilities affect numerous national security and Department of Defense mission systems to including the Navy’s Integrated Undersea Surveillance System, Undersea Warfare sonar and combat systems, and distributed undersea systems.
Mr. Mark Owen, Space and Naval Warfare Systems Center Pacific, developed state of the art technology to automate the Signals Intelligence manual processes on board maritime, land, and air platforms to rapidly characterize previously unknown radars. The developed software significantly reduces the time, number of complex tools and manual operations that analysts currently perform to complete their daily tasks.

Dr. Igor Vurgaftman, U.S. Naval Research Laboratory, introduced innovative design modifications to the interband cascade laser that produced breakthroughs in the performance of semiconductor lasers for Department of Defense infrared countermeasure and chemical sensing applications. This work resulted in interband cascade lasers becoming one of the world's leading semiconductor lasers for the important mid-infrared spectral range.

**Emergent Investigator Category**

Dr. Michael Daly, Space and Naval Warfare Systems Center Pacific, is recognized for his outstanding contributions in the area of advanced antenna development for Navy and Marine Corps systems. Dr. Daly continues to lead promising technical work that will improve communication throughput for Marine Corps radios while also enhancing high frequency signal geolocation.

Dr. Jonathan Essel, Naval Air Warfare Center Weapons Division, developed revolutionary methods for harvesting explosive nanoparticles for improving performance and safety of explosives and propellants. Among Dr. Essel's accomplishments are the creation of energetic inks and precursor materials to be used for additive manufacturing of energetics and energetic devices.

Dr. Christopher Weiland, Naval Surface Warfare Center Dahlgren Division, developed system that provides fire control with real-time, over the horizon target identification and tracking, automatic gunfire scoring and instantaneous shot correction orders, all without risk to a human forward observer. His highly adaptive algorithms demonstrate increased accuracy, reliability and efficiency in scoring gunfire.

**Group Category**

Naval Surface Warfare Center Indian Head Explosive Ordnance Disposal Technology Division, headed by Ms. Samantha Church and comprised of Dr. Heather Hayden, Ms. Lori Nock, Dr. Harold Sandusky, and Ms. Mary Sherlock developed the plastic bonded explosive, PBXIH-141 which has demonstrated a fourfold improvement in sensitivity over the currently fielded PBXN-109 with the same explosive performance. This dramatic improvement in sensitivity will result in safer ordnance systems for our warfighters and reduced logistical cost for the Navy.

U.S. Naval Research Laboratory (NRL), led by Dr. Jeffrey W. Long, Dr. Joseph F. Parker, and Dr. Debra R. Rolison cracked a centuries-old problem and transformed the future capabilities and performance of the entire family of Zinc-based alkaline batteries. Their batteries reached Lithium ion-equivalent performance, in a nonflammable aqueous-based battery thereby meeting the goal of a robust, energy dense, and safe battery that relies on nonstrategic, earth-abundant elements.

*Portions of this piece originally published on Navy.mil.*

*All photos taken by MC1 Bryan N Blair*
2015 DON T&E awards ceremony honors Navy & Marine Corps testers

By Anthony Devino, DON T&E Office, DASN (RDT&E)

On April 20, 2016, RADM Mathias Winter, Department of the Navy Test and Evaluation Executive, N84, and Mr. Carroll (Rick) Quade, SES, Deputy DON T&E Executive, DASN (RDT&E)/N84C, gathered with award recipients, leaders, co-workers and family members in the Pentagon’s Hall of Heroes for the 2015 DON T&E Awards Ceremony. This was the fourth year for this competitive awards program which recognizes the outstanding efforts and achievements of Navy and Marine Corps testers in support of naval acquisitions programs.

The DON T&E Lifetime Achievement Award was presented to Mr. William Houchins, Senior Technical Leader in the T&E Division, Naval Surface Warfare Center Dahlgren Division, Naval Sea Systems Command. Houchins spent over 35 years advancing the competency, ingenuity and effectiveness of the Navy’s T&E community. His outstanding engineering and testing contributions in the areas of insensitive munitions, test planning and protocol development, fragmentation characterization, data reduction and employee coaching and mentoring development are unparalleled. Houchins’ experience and expertise have been requested by national and international T&E communities, including the Department of Defense Explosives Safety Board, Weapons Systems Explosive Safety Review Board and Australian Ordnance Council, and led him to serve as the Chairman of the Munitions Reaction Evaluation Board. His legacy will have lasting impacts on the greater NAVSEA T&E community, having ensured the development of exceptionally talented T&E leaders and sustaining efficient, superior test methods and protocols.

The DON Lead Tester Award was presented to Mr. Thomas Briggs of the Naval Air Systems Command (NAVAIR). While serving as F-35 Integrated Test Force Air Vehicle Lead, Briggs distinguished himself by the conduct of exceptional test planning and execution efforts while leading a team of over 250 Flight Test Engineers. Briggs’ leadership provided the USMC with the operational envelope required to declare F-35B Initial Operational Capability in July 2015, and provided all necessary data to support the authorization of the first fleet F-35C carrier qualification event. Briggs’ exceptional efforts, selfless dedication, depth of technical knowledge and meticulous attention to detail resulted in the safe and efficient completion of pivotal test milestones for the F-35 Program. His efforts have positively impacted the safety and effectiveness of the F-35B and F-35C fleet aircraft for decades to come.

The DON Award for Technical Excellence at a T&E Facility or Range was presented to Mr. John Auborn, NAVAIR. During Auborn’s 28-years with the Integrated Battlespace Arena Team and Weapons Division, he has provided invaluable input as a Senior Electrical Engineer and subject matter expert. NAVAIR called upon his expertise to lead the System Test Environment Architecture for the System of Systems Integrated Battlespace Simulation and Test Department. Auborn designed and developed the Virtual Prototyping Facility used for manned aircraft and ground environment simulations. He also developed the Unmanned Systems Facility used to simulate all aspects of unmanned aerial systems in flight, including command, communications and sensor integration. Auborn contributions have directly resulted in development of unique and critical test capabilities for NAVAIR and DON T&E.

The DON Aspiring Tester Award recipient in the military category was Capt Krysta N. Johnsen of Marine Corps Operational Test and Evaluation Activity (MCOTEA). As an Operations Research Analyst for MCOTEA, Johnsen’s “can do” attitude resulted in the development of a System Assessment Plan for the Mine Resistant Ambush Protected Vehicle Survivability Upgrade Program to support Operational T&E (OT&E). Johnsen led a high-profile Ground Combat Element Integrated Task Force experiment and greatly impacted the related tests with her leadership and outstanding problem solving skills. In addition, she applied her talents and T&E analytical skills to the Target Handoff System Assessment Plan.

The DON Aspiring Tester Award recipient in the civilian category was Mr. Robert S. Buff of NAVAIR. As a...
In the military category, the DON Small Program Outstanding Tester Award was presented to Capt Zachary J. Stanley of MCOTEA. Stanley distinguished himself as the Operational Test Project Office for the Light Armored Vehicle Anti-Tank Modernization Program. His leadership was instrumental in achieving cost and schedule savings for the OT&E, and enabled the program to execute the production award contract ahead of schedule. Stanley convinced stakeholders that a shortened OT&E was prudent given the results from developmental testing. Through his dedicated efforts, testing finished four weeks early with a cost savings of $610,000. Stanley also expertly led his Test Team in the reporting, analysis and evaluation of the OT&E data ahead of schedule. This permitted the program manager to execute the production award contract in a timely manner, protecting the full funding for this important program.

The DON Small Program Outstanding Tester Award in the civilian category was presented to Mr. Eric Pierce of Naval Surface Warfare Center, Panama City Division, NAVSEA. Pierce was the Principal Investigator for the ‘Effect of High Deck Accelerations on Surgical Tasks’ and pioneered the development of T&E methods to assess the effects of craft motion on human performance and injury. Pierce coordinated with numerous Navy and Marine Corps commands to acquire supplies needed to conduct the experiments without additional costs. To add realism to the tests, he consulted and partnered with civilian medical schools, a special operations medical training facility and a movie special effects company and executed surgical simulations at one-third the projected cost. Pierce's leadership directly contributed to successful execution of the test events and provided results that exceeded the sponsor’s objectives.

In the civilian category, the DON Small Program Outstanding Tester Award was presented to Mr. Eric Pierce of Naval Surface Warfare Center, Panama City Division, NAVSEA.

The DON T&E Working Integrated Product Team (WIPT) Award was presented to the Amphibious Combat Vehicle (ACV) 1.1 T&E WIPT, PEO Land Systems. The ACV T&E WIPT distinguished itself through the conscientious participation of all stakeholders and aggressive management of a Test Evaluation Master Plan (TEMP) development schedule. The open communications and collaborative environment established by team leadership resulted in the early identification and adjudication of risks and issues. The team’s diligence and dedication resulted in the conclusion of TEMP activities in less than a year and achieving service approval in less than 39 days. The T&E WIPT’s efforts support the timely delivery of expeditionary protected mobility and support lift to the Marine Corps as part of a Ground Combat Element Task Force.

The DON Test Team Award was presented to the Magic Carpet Test Team of NAVAIR. The Magic Carpet Test Team consists of a diverse set of government and contractor personnel involving test pilots, flying qualities and flight control T&E experts. The Magic Carpet Test Team distinguished itself with the successful testing of the F/A-18E/F carrier glide slope operational flight program on time and under budget. The Team judiciously maximized the use of the Manned Flight Simulation Facility to refine the flight control law design and begin operational testing within ten months. The Magic Carpet Team completed 129 shore-based carrier approaches for both nominal and off-nominal conditions, and within five weeks achieved clearance for shipboard operations. Aboard the CVN-77, the Team achieved a 100% sortie completion rate and executed 181 carrier landings in the span of three days. The result of Magic Carpet Test Team’s efforts provides an enhanced capability that enables pilots to make glidescope and lineup corrections faster, improves boarding rate and safety, and reduces aircraft structural fatigue.

All photos taken by MC1 Jason Behnke.
Secretary Stackley closes Sea-Air-Space 2016

by Mass Communication Specialist 2nd Class Dustin Knight, Defense Media Activity NATIONAL HARBOR, Md. (NNS) -- Assistant Secretary of the Navy for Research, Development and Acquisition, The Honorable Sean J. Stackley, brought the 2016 Navy League Sea-Air-Space Exposition to a close May 18 with a speech during the SECNAV Luncheon held at the Gaylord National Resort and Convention Center in National Harbor.

Stackley spoke about the importance of innovation and moving quickly to get new technology to the fleet. "We've launched two broad campaign centers, centered on rapid prototyping and advanced capabilities to get at that speed," said Stackley. "We've put our best and brightest in charge of delivering results and we have significantly increased our research and development investments, particularly in those game changing technologies that provide the greatest promise for maintaining our technological superiority."

Stackley also spoke about the challenges of the Navy and the importance of partnership. "The partnership that CNO highlights in his design, inside the Navy and Marine Corps with other services, and with international partners; the partnerships we form increase our warfighting capability."

Stackley continued to speak about the importance of partnerships between sea services, government industry, and our allies. "What makes this partnership strong is our common objectives to protect the nation and to take care of our men and women stationed around the world, at war and on watch, safeguarding our liberties," said Stackley.

Throughout the three-day event, Navy leadership and industry leaders spoke about the future of Navy innovation and capabilities, the importance of working closely with our partners and allies, and equipping and sustaining the sea services.

"It's almost a cliché, but I think this is the best expo we've had," said Jim Offutt, chairman of the Navy League Foundation and former president of the Navy League.

SAS2016’s most popular attendee, WCC Valerie, an ambassador dog with the Warrior Canine Connection booth. Warrior Canine Connection gives service dogs to post-deployment veterans with a documented disability and the recommendation of a medical provider. After an application and interview process applicants are matched with dogs.
Several exhibitors mentioned this was the most traffic on the expo floor they have ever seen. This is also the best line-up of speakers we have had, each having something meaningful and new to say. Not only are we a trade show; I have heard more and more about the professional development panels and the range of topics that were discussed. Both the trade show side and the professional development sides were great successes."

More than 12,000 attendees had the opportunity to browse more than 300 exhibits from industry leaders and naval commands. "I was here primarily to see what our defense industry has to offer, what new toys we have out there, what things they're trying to present, and just basically, the latest technology," said LCDR Kemi Elebute, PMS-505, Littoral Combat Ship Office. "I actually enjoyed the expo. This is my first time attending. There was a lot of good information put out. I learned a lot from the contractors that were here, from the exhibits, and from the panels that were given."

Next year's Navy League Sea-Air-Space expo will be held April 3-5 at the same location. For more information on Navy League's Sea-Air-Space Exposition visit http://www.SeaAirSpace.org.

Text originally published on www.navy.mil
Small business advocate –
The voice, the responsibility, the passion

By Arveice M. Washington
DON Office of Small Business Programs

Coming from the program management world, my focus has been on balancing Cost, Schedule and Performance.

Serving as the Team Submarine, Enterprise Wide Contractor Support Services program manager, I was responsible for the management, oversight and execution of all support services contracts in the organization. In an era where we are challenged to do more with less, scrutiny is placed on how much is being spent on contractor support services. Contractors play an integral role in helping us meet our mission, but at times the question comes down to what is the right number.

A rotation opportunity became available at the Department of the Navy Office of Small Business Programs (OSBP) and, although reluctant because this was outside of my PM comfort zone, I met with the newly-appointed Director to learn more. My responsibilities were to include developing and executing training for the Deputy Program Manager’s (DPM’s) in their new role as Small Business Advocates and to assist them in improving their small business strategies as required by ASN (RD&A).

In January 2015, ASN (RD&A) issued the “Tapping Into Small Business in a Big Way” Memorandum which assigned each Deputy Program Manager the additional role of Small Business Advocate focusing on three areas of responsibility: (1) Identifying opportunities within their program for Small Business participation; (2) Serving as the technical Point of Contact for Small Businesses interested in pursuing these opportunities and (3) Management of Small Business Innovative Research (SBIR) and Small Business Technology Transfer (STTR) within their area of expertise. As we look beyond merely meeting a goal, emphasis must be placed on incorporating small business into our contracting strategies and actively engaging small businesses in the course of addressing program requirements. Small businesses offer the innovation, flexibility and affordability necessary to support the achieving of dominant capabilities and ensuring the long-term success of the Department of the Navy.

I remember reading this memorandum some nine months prior and thinking “What does this mean for me?” If I had the question, I was certain others did as well. The opportunity to lead an effort to educate the Workforce and help change the mindset - the culture of our community - excited me. Although initially reluctant, once I met with the OSBP Director and learned the requirements of the job, I changed my mind and leaped at the opportunity.

So, what should the term “Small Business Advocate” mean for you?

- Understand the capabilities of your small and large industry partners and identify break-out opportunities if it makes sense.
- Be open-minded and open to change – Not always going back to the incumbent/ original equipment manufacturer.
- Make your small business professional a key team member.
- Include your small business professional in the earliest Acquisition planning and decision meetings.
- Listen and communicate with industry.
- Help your small business professional understand your program so they can better assist you.
- Consider opportunities for small businesses at all phases in your program Acquisition life cycle.
- Understand the small business utilization in your contracts (prime and subcontracts).
- Successfully complete DAU course CLM059 – Small Business Program for Program Manager’s.

We kicked-off Small Business Advocate training 17 May 2016 at Sea-Air-Space. Although DPM’s are ultimately responsible, I view the Small Business Advocate role as touching each and every one of us. We all have a voice, a responsibility to develop the passion and consider “Small Business – The First Option” in our Acquisition planning. If you were unable to attend the training at Sea-Air-Space 2016, your command will be scheduling training in the near future. If you are interested in completing a rotation in the OSBP or want to learn more about your role as a Small Business Advocate, don’t hesitate to contact us at Small_Business@navy.mil or visit us on the web at http://smallbusiness.navy.mil.
Continued from page 1

a Logistian, BFM, or any of the career fields; it does not matter, you must take active control. My advice is to get out, actively try to go to other places, and build your experience base.

Second, the thing I valued most in people who reported to me was judgment. Also, it’s important to have a perspective; perspective is gained from experience. You learn from doing right and wrong a couple of times; you gain a little perspective and acknowledge, “I’ve seen this before,” or, “I understand what’s going to happen next.” A lot of things happen in the course of executing programs. I call it “wheat and chaff.” I like to see the wheat, but people who don’t have a lot of confidence, experience or judgment will often send the chaff right through. So, as one whose time is limited and overscheduled, I very much value people who can take charge, do the right thing, let me know what they’re doing, ask what needs to be asked, and take the initiative. That character comes from experience, judgment, and perspective; it all ties together.

Third, expectations on the Workforce are higher than when I first started my career. People must be more aware of the overall environment. They have to understand higher-level guidance, such as expectations of the Chief of Naval Operations (CNO) and the Secretary. I call it “theory to practice”. For example, the CNO has a Design for Maintaining Maritime Superiority; individuals should read and know it. I think the challenge in this much more connected and informed Workforce is to know the “big flick” and how you fit into it. It takes time and effort to broaden oneself. I recommend reading the Wall Street Journal. Don’t just stay in your very narrow professional lanes because it can limit you as you’re doing your job.

It’s good to know what’s going on around you and better if you know what people in the different entities or competencies are doing or what drives them. A good example is NAVAIR’s Innovation Challenge. It was briefed at the Acquisition Workforce Summit and it was fascinating—not only the engineering and ingenuity of these teams, but the fact they were in their early 20s, and had only been in the AWF a couple years. What was the take away? They learned how to get things done in this business. They learned who to talk to, how to network and how to make things move along. In the end this is a people business, and so, it behooves us to work on the people side of this people business we call Acquisition. Part of the advantage to working in the Pentagon is seeing common themes across the Workforce. We see so much that we’re able to pull together trends and patterns and see them rather quickly. If there is a strong program team managing their programs strategically or tactically or conversely, not at all, or are waiting to be led—you can see the trends.

Fourth, some advice I’d give to an entry-level or journeyman-level person is to go to the waterfront, learn the product you will eventually field, manage, or program something involved with that product. Also, go talk to people and see what they do. Often people come to talk with me and ask ‘Should I be doing that?’ My answer is, ‘Go see that person. Ask them how they like their job; go ask them what they do. Spend the day with them, or a week.’ As I’ve mentioned earlier, you can go for a couple months to the SUPSHIP. A fabulous opportunity we have is to send people during the delivery cycle, because that’s an intense couple months. The Supervisor of Shipbuilding loves to have the team augmented with energetic talent. Work a midnight to 7:00 am shift as you’re covering the back shift for the supervisor to get a ship to sea. Those are the kinds of experiences you’ve got to go after. Also, get a mentor. Get a couple mentors in different career fields even. I also suggest a tour at the Pentagon. I encouraged you to do a tour in the resource sponsor office or with the secretariat side through the DASNs. Learn the budget cycle. Understand the difference between an N80 and an N81. You’ve got to live it. It’s very important to develop the Workforce, the people. It’s something that’s easy to neglect, but it’s extremely important. Ask, “Who’s going to be my relief? Am I developing the right person?” You need to spend more and more time as you get more senior developing people, working with them, mentoring them, and coaching them. The return on investment far exceeds what you know. I go back to this is the people business and we ought to be spending more time on the people.

Fifth, with tools such as Twitter, text messaging, and email, you really can be “on the clock” all of the time. However, I think the next generation of the AWF will not want to be on-call 24/7. It’s very important to learn when you have time off of work, mentally check out of work, not just physically go away. People need their 1 to 2 weeks of leave to recharge. You have to really think about how you balance work/life time.

Finally, we’re doing meaningful work, and people who really want to do something that makes a difference will thrive. I think that’s what we offer people coming into our business at any age. We’re doing good work and it’s important and it makes a difference. You have a Sailor or Marine on the other end of what you’re doing. That’s a pretty good thing to work on. There’s never been a better time to be in this business. Acquisition skills are invaluable and will always be needed. Though things change, tools change, expectations change, the basic principles are the same and the Navy and Marine Corps look to us in the Acquisition community to do our jobs well. They need us and we need them. So, coming into this business, it couldn’t happen at a better time.

ACQUISITION LEADERSHIP CHANGES

PEO Changes:
RDML Dean Peters-Air ASW, Assault and Special Mission
RADM John Neagley-Littoral Combat Ships
RADM Brian Antonio-CARRIERS

ACAT I PMs:
Mr. Patrick Fitzgerald (PMW 240) Sea Warrior
CAPT Keith Hash (PMA 231) E-2D Advanced Hawkeye
CAPT Kevin Byrne (PMS 407) Surface Ship Modernization
CAPT Kevin Smith (PMS 500) Zumwalt Class Destroyer (DDG-1000)
CAPT Theodore Zobel (PMS 420) Littoral Combat Ship Mission Modules
CAPT Anthony Rossi (PMA 290) Multi-mission Maritime Aircraft (P-8A Poseidon)
Marine Corps bids farewell to first, only PEO

Common Aviation Command and Control System; and Ground/Air Task Oriented Radar, or G/ATOR.

Building a PEO
Taylor, a veteran Marine helicopter pilot, was selected as the PEO in January 2007, when he was still a colonel in the Marine Corps. While he had never been a PEO, his background and experience as a program manager at Naval Air Systems Command, working for a PEO, provided him a solid foundation.

“I adopted and instituted [a structure and processes] that were familiar to me—that I knew to be tried, true, tested and above all else, very successful—i.e., Naval and Marine Corps Aviation,” Taylor said. “It’s all about managing and operating Aviation programs within a focused, disciplined framework, built on a foundation of process, procedure, analysis, risk assessment and transparency. To be successful, it’s also pretty important to understand what your boss views as important.” Developing and sustaining robust, disciplined and formalized processes have been instrumental to the PEO’s growth and success. According to Taylor, one of the top strategic goals PEO Land Systems laid out at its very first management meeting, which is still in place today, was establishing timely program reviews. These are done in an environment where representatives of all the PEO’s organizational stakeholders not only gain insight into the Acquisition programs they champion, but provide clarification to program managers as they seek solutions to warfighter requirements.

“Reflecting back now, I’m very proud of the fact that whenever we reviewed our strategic objectives, I always offered our PEO leaders an opportunity to propose revisions or additions, and they never saw the need to take me up on it,” Taylor said. “Those objectives are as rock solid and germane today as they were nearly a decade ago. They established and maintained the right culture, tone and environment to ensure our program teams flourish and succeed in delivering the required capabilities to our warfighters.”

We work for the Marine Corps.
Another major challenge has always been getting Marine Corps leaders to fully understand the PEO’s authorities and reporting relationships. According to Taylor, it is a challenge that still exists today and is unique to the Marine Corps. He explained that it is not about the Marine Corps having confidence in the PEO’s abilities to manage its portfolio, or its perceived value to the Marine Corps. It is essentially a misunderstanding of the PEO’s organizational alignment and the fact that, by law, PEOs report to their Service Acquisition Executives. In the Marine Corps case, this is the ASN (RD&A).

“In my opinion, the crux of the problem is that there are two services within the Department of the Navy,” Taylor said. “In the other departments, the Army, Air Force and Navy view their service Acquisition executives as part of their greater service family. But at some level, I think the Marine Corps views ASN (RD&A) as really...
being part of the Navy secretariat, and by extension, PEO LS as somehow really working for the Navy.” No matter the organizational structure and reporting chain, Taylor’s mantra has always been, “We report to ASN (RD&A), but let there be no doubt that we work for the Marine Corps.”

**The more things change**

In the last 10 years Marine Corps Acquisition has transformed and evolved, but one thing has remained the same — Marines are demanding customers. “The Marine Corps wants its capabilities yesterday, not a dozen years from now,” Taylor said. “We have made great progress in professionalizing the Marine Corps Acquisition Corps. The fact of the matter is that the PEO is now recognized within the Corps as best suited to successfully manage its major Acquisition programs.”

The Marine Corps has also made great progress in professionalizing its uniformed Acquisition corps with the establishment of an Acquisition professional primary Military Occupational Specialty for Marines. A decade ago, it was difficult to find qualified Marines who could compete for program leadership positions, but that sight picture has completely turned around, Taylor said. “Without question, Marines now hold their own at Acquisition slating boards,” he added.

**Building Acquisition leaders**

Taylor said he is often asked to address those Marines and other new program managers, and he shares the same advice for surviving and succeeding in the world of Acquisition.

“Above all other advice, I stress that their success as a program manager is in large part based on building relationships, and constantly using those relationships to their advantage,” he said.

“Although being viewed as a subject matter expert is always important, your willingness to do the right thing, tell the truth, build consensus, and yes, strike compromise when required, is even more important.”

Taylor said he departs PEO Land Systems knowing Marine Corps Acquisition is in a much better place than when he first started.

“I certainly hope to be remembered as competent, but above all else I want to be remembered for my transparency, speaking the truth and always doing the right thing,” he said.
Aluminum sensitization and cracking integrated product team  
Naval Surface Warfare Center, Carderock Division  

by Nicholas Malay, Naval Surface Warfare Center, Public Affairs

The Navy is providing fieldable technologies for the shipboard identification of sensitized aluminum plate as well as a surface treatment to mitigate stress corrosion cracking due to sensitization that will reduce costs by increasing efficiencies for maintenance, providing more rapid sensitization detection, and a more robust surface treatment to mitigate cracking.

The NSWC Carderock Division Aluminum Sensitization and Cracking Integrated Product Team is comprised of Principal Investigator for In-Situ Metallography, Materials Engineer, William Golumbfskie; Principal Investigator for Degree Sensitization (DoS) Probe, Materials Engineer, Richard Park; In-Situ Metallography Technical Expert, Materials Engineer, Daniel Stiles; Principal Investigator for Ultrasonic Impact Technology, Materials Engineer, Kim N. Tran; and In-Situ Metallography Technical Expert, Materials Engineer, Angela Whitfield.

“The following three technologies were developed and transitioned as part of this project to support the goal of developing tools and procedures for identifying and treating sensitized aluminum”, Golumbfskie said. “They include fieldable non-destructive devices that can measure degree of sensitization and weldability of existing material on board ship, and treatment procedures to ensure repairs are effective and will not re-crack in the future.”

Degree of Sensitization Probe
“This technology is a fieldable, non-destructive tool that is robust and easy to use that will give a local degree of sensitization measurement in minutes compared to the current destructive approach that requires excising a specimen for a 24-hour laboratory test,” Park said. “Six fully developed and certified Degree of Sensitization Probe (DoS) probes for use on U.S. Navy cruisers were developed under the project, and approximately 1,400 DoS probe measurements across 13 cruisers have been performed as of Quarter 4, Fiscal Year 2015.”

In-Situ Metallography
“In-situ metallography is a nondestructive technique of visual inspection used to determine if marine grade aluminum has become sensitized,” Golumbfskie said. The area of interest is prepared using a series of progressively finer grinding and polishing steps resulting in a surface that has a smooth “mirror finish”. The area of interest is etched with phosphoric acid and imaged at high magnification (500x) to observe the aluminum microstructure and determine if the material has become sensitized and thus susceptible to stress corrosion cracking (SCC). Golumbfskie explained this technique is able to be used in both horizontal and vertical spaces, as well as overhead spaces. To date, in-situ metallography has been used on 18 ships across three ship classes.

Ultrasonic Impact Technology (UIT)
UIT is a surface treatment technology that imparts deep compressive residual stresses in the surface of the material. “It has been shown to improve SCC resistance and mitigate cracking susceptibility in 5456-H116 Al-Mg alloy superstructures on CG-47 Class,” Tran said. “UIT has been used as part of the weld repair process for moderately sensitized aluminum on CG-47 class ships, successfully preventing cracking in the treated areas.” It is used to pretreat the surrounding sensitized base metal for insert repair and prior to excavation for localized crack repair; it is also used to post-treat completed welds. “UIT has been successfully used to aid in crack repair on virtually all cruisers in the fleet to date,” Tran said.

The DoS probe, in-situ metallography, and UIT technologies that were developed in the “Naval Superstructure Cracking Due to Aluminum Sensitization” effort are separate, but complimentary tools that are being used on the waterfront to help mitigate the effects of cracking due to sensitization. “The DoS probe quantitatively measures the level of sensitization on the superstructure and deck, aiding in the determination of critical repair decisions for cracked aluminum,” Golumbfskie said. “In-situ metallography is a qualitative technique, but benefits from being able to be used for a wider range of alloys, as well as be used in more confined spaces and overhead spaces, when compared to the DoS probe. For repair involving material that is sensitized, ultrasonic impact technology is used to mitigate the potential for further cracking after weld repairs are made. When used in conjunction, these tools allow for quicker analysis and more robust repairs reducing maintenance costs and increasing operational efficiency.”

NSWC Carderock Division, a command within Naval Sea Systems Command (NAVSEA) and a part of the Naval Research & Development Establishment, leads the Navy in hull, mechanical and electrical engineering. Headquartered in West Bethesda, Md., NSWC Carderock also includes detachments in Norfolk, Va., Cape Canaveral, Fla., Fort Lauderdale, Fla., Memphis, Tenn., Bangor, Wash., Ketchikan, Alaska and Bayview, Idaho.

To learn more about the cutting-edge technology researched and developed at NSWC Carderock Division, please go to, http://www.navsea.navy.mil/Home/WarfareCenters/NSWCCarderock.aspx
PM Professional Development continues leadership panel discussion series

by Leslie Faszio, PM Professional Development

On June 2, 2016, NAVAIRs PM Professional Development Team, a division of the Acquisition Workforce Development Department (AIR-1.5) conducted its eighth PM Leadership Panel Discussion. This series of events provides the Workforce with an opportunity to hear PM leaders discuss their personal leadership development journey, professional challenges they have faced, lessons learned and advice on how to develop as leaders in the program management community. The panelists for this event were CAPT Craig Grubb, Program Manager, H-60 Program Office (PMA-299), Mr. Thomas Spidel, Department Head, Acquisition Management Systems (AIR-1.7), and Mr. Edward Chermansky, Principle Deputy Program Manager, Navy Unmanned Carrier Aviation (PMA-268).

The panelists were asked a series of prepared questions which were designed to promote discussion about their individual experiences as leaders. Each comes from a very diverse background and they shared some insight into what shaped their careers, what makes their jobs rewarding or challenging and what they continue to do to grow as leaders. Here are some topics that were discussed:

• **People** - All three leaders agreed that people are an organization’s most valuable asset and learning to work with, manage and motivate them is imperative to getting the job done. They emphasized the importance of valuing people and respecting the diversity of thought that comes from being part of a team. When asked about the most rewarding parts of their jobs or what the most important decisions they make as leaders are, the answer across the panel had to do with people. Whether it was about mentoring, getting the right people and managing them properly, watching their people succeed, or helping teams perform better.

• **Biggest Challenges** – Not surprisingly dwindling resources and budget restraints that make it hard to predict stability are the biggest challenges they face. The panel also agreed that one of the most challenging parts of their jobs is how to deal with the perceived fear of failure that often stagnates the decision-making process at leadership levels.

• **Continuous learning** - As leaders the panelists also emphasized the importance of continuing to develop and grow, even in leadership positions. They discussed the importance of recertification and currency of qualifications, relating them to those types of requirements in other technical discipline such as medicine.

There was a Q&A session at the end of the event for the audience, which consisted of approximately 25 participants from across NAVAIR. The audience asked very insightful questions which prompted candid and open dialogue throughout the room. The PM Leadership Panel discussion is just one of many networking events the PM Professional Development team hosts. The goal of the PM Professional Development team is to provide a range of opportunities that reach across all levels of the PM Workforce through a variety of interactive events and formats specifically geared towards anyone interested in developing a career in program management. The next PM Career Field Info Session will be held on 28 July.

For more information or questions on professional development or for the opportunity to share ideas and interact with others in the PM Career Field Community, visit the PM Community Blog and Discussion Board. The blog features leadership, mentoring and career development content. The discussion boards are open after each event to share ideas and information with other event participant to “Keep the Conversation Going.” Visit it at [http://go.usa.gov/cyr7t](http://go.usa.gov/cyr7t)
Countdown to award completion

A 12-week guide to award your contract before the end of FY16

In addition to your “Daily Acquisition News” updates and other acquisition-related learning resources, the Navy’s Enterprise-wide subscription to the Virtual Acquisition Office (VAO) now includes a 12-week “Countdown to Contracting” series — a curated set of resources and CLP opportunities that guide subscribers through the procurement process from now until the end of the FY16.

With the VAO’s "Countdown to Contracting” resource, Navy users will receive an email every Monday morning with information and tools to help stay on track to award contracts, place orders, and exercise options before fiscal year end, with three weeks to spare. Subscribers will also receive an overview of how to plan "to-do" lists each week, for each phase of the acquisition process and execute the tasks at hand. The VAO series includes an optional quiz every week, and participants who pass the quizzes will get the specified CLPs each week, increasing proficiency in the weekly subject matter.

If you haven’t used the resource yet, it is not too late. Review past weeks and get caught up, while earning CLPs. Check out the “Countdown to Contracting” Series on VAO here: https://www.gotovao.com/index.cfm?action=countdownEOY

Calendar & Events

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<td>19 July</td>
<td>Acquisition Career Council</td>
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To contact the DACM please go to http://www.secnav.navy.mil/nda/Workforce or call (703) 614-3666 or fax (703) 614-4262.

To submit something for publication or to contact the editor, email Beth Sylvester at elizabeth.m.sylveste.ctr@navy.mil or call (703) 693-4072. Cover photo credit: Navy photo/Released

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