

New DACM Talks About Importance of AWF

W. Mark Deskins Director, Acquisition Career Management



There are fewer things in Acquisition that I have found that are more rewarding than delivering a ship. As the former Deputy Program Manager for the Strategic and Theater Sealift program offices (PMS 385), I had the privilege of being part of the team

that delivered five Joint High Speed Vessels and two Mobile Landing Platforms. I was having fun and making a difference.

As I spoke with the former Principal Civilian Deputy Assistant Secretary of the Navy for Research, Development and Acquisition Jim Thomsen about the job as the Director of Acquisition Career Management (DACM), I found myself at a crossroad. I had to answer some fundamental questions that kept me awake at night. Why do I do what I do? What makes me stay in the job I am in? What makes my job meaningful? Where can I contribute the most?

I reflected back on March 5, 2005, where I stood in the cold rain watching the USS Nitze (DDG 94) being commissioned. As you probably know, she was named for Paul H. Nitze who was a civilian and Secretary of the Navy, as well as, many other distinguished positions. The ship's motto is "Vision, Courage, Determination." Each speaker, cognizant of the cold and rain, moved through their speeches at their own pace. I will admit, my mind wandered and I wondered why I was at the event. At the appropriate time in the ceremony, the ship sponsor (Elisabeth Scott "Leezee" Porter, the widow of Paul H. Nitze) said, "Sailors, bring the ship to life and man the rails." At that moment, from the back of the crowd, hundreds of young sailors ran up the aisles and onto the ship. As the young faces ran by, each one looked like my son and your son and daughter and my neighbors' sons and daughters. I was struck by how young they were and how proud they stood in the cold rain manning the rails. It was one of the most patriotic events I have ever attended. From that day forward, service to our sons and daughters, our friends' sons and daughters and their sons and

daughters is why I serve. When you think about that responsibility, you have to be humbled and do your best --- every day.

No matter where we are in the acquisition community, our job is service to the men and women across the Services. Acquisition is a team sport and the decisions we make influence the next 30+ years. As Secretary Stackley recently testified, "The business of Defense acquisition consists of tens of thousands of individual decisions made daily - requirements, technical, contracting, financial, supply, etc. - and the more experienced and qualified the AWF, the better the decisions. The best acquisition outcomes are produced by the most experienced acquisition people - in technical knowledge and business acumen.....It requires highly talented and dedicated military and civilians who are the "Special Forces" of the federal civilian workforce."

Today, my job is to serve the 53,000 men and women of the acquisition workforce to become the "Special Forces" who deliver the products and services that our service men and women deserve for the current fleet, the future fleet, and the fleet after next.

AWF: Special Forces of the Federal Workforce

Sylvia Bentley, Chief of Staff Director, Acquisition Career Management

In his April 22 statement to the Senate Armed Services Committee on Acquisition Reform, Assistant Secretary of the Navy for Research, Development and Acquisition Sean J. Stackley addressed the role of the acquisition workforce (AWF) in the production of the most capable military weapon systems in the world.

He stressed that an experienced AWF is the single-most important fundamental in achieving strong, repeatable performance in Defense acquisition.

"The best acquisition outcomes," said Stackley, "are produced by the most experienced acquisition people - in technical knowledge and business acumen. Simply put, defense acquisition is a human endeavor."

Within the Department of the Navy (DON), we are responsible to the warfighter and taxpayer to manage and execute upwards of \$60 billion per year for Navy and Marine Corps development and procurement, both to meet the current needs of our Sailors and Marines, as well as ensure we maintain naval superiority well into the 21st century. To do so, the AWF requires highlyeducated and skilled professionals. It requires highly dedicated military and civilians who are the "Special Forces" of the federal civilian workforce.

To meet this requirement, we must be able to recruit and retain the best and brightest for this work so that we become the premier technical and business

workforce in the world. Stackley argued that a premier workforce cannot be subject to the same undistributed government personnel reductions as with any other part of the federal workforce. Mandatory workforce reductions, furloughs and government shutdowns are unattractive to prospective hires and current acquisition professionals the Department must retain.

Stackley recognized the much needed legislation Congress has provided, such as Section 852 in the 2008 National Defense Authorization Act and the Acquisition Demonstration Project, noting they provide helpful authorities for AWF hiring, training and retention, as well as budget authority dedicated to rebuilding the Department's in-house Science and Engineering foundation. He stressed they are important and DON is grateful to Congress for their support.

Stackley noted that history and experience have demonstrated that programs succeed when they adhere to five basic principles: (1) get the requirements right; (2) perform to a stable plan; (3) make every dollar count; (4) rely on an experienced workforce; and (5) foster a healthy industrial base. The great challenge before us all is to produce the capability needed at more affordable cost; and at a pace that preserves the technological edge our military has possessed for nearly three-quarters of a century. We are determined to demonstrate we are up to the challenge!

Editor's Note: Read Stackley's full testimony at the <u>Senate Armed Services</u> <u>Committee website</u>.

PEO SPOTLIGHT PEO IWS Provides Weapons, C2 Products for the Fleet

Rear Adm. Jon Hill, Program Executive Officer for Integrated Weapons Systems

The Program Executive Office for Integrated Warfare Systems (PEO IWS) was established in 2002 and is responsible for the development and acquisition of enterprise warfighting solutions to the United States Navy's Surface Fleet. We are headquartered at the Washington Navy Yard, in the newly renovated Joshua Humphreys building and report directly to the Assistant Secretary of the Navy for Research, Development and Acquisition (ASN(RDA)) for all acquisition related matters, and directly to the Commander, Naval Sea Systems Command (COMNAVSEA) for all in-service support of integrated combat systems. Our mission is to develop, deliver and sustain operationally dominant combat systems to Sailors - Providing Seapower to the hands of our Sailors!

We lead a nationwide workforce in the development and acquisition of more than 120 weapon system and command and control programs with direct programming, budgeting and execution responsibility exceeding \$5 billion dollars in Total Obligation Authority. Major elements of these combat system programs and projects include missiles, radars, launchers, electronic warfare systems, undersea warfare systems, naval gunnery systems and associated Non-Nuclear Expendable Ordnance (NNEO). Due to the vast size of this product line, oversight resides primarily with the Major Program Managers (MPMs) for the individual program offices within PEO IWS. Each MPM serves as the single point of coordination and communication across the PEO for all combat as Acquisition Category I - two of which (CEC

system related matters and is directly responsible for acquisition, development, testing, production, installation, certification, logistics and maintenance

PEO IWS advances the concept of interoperability by centralizing the design and development of combat systems for the U.S. Navy across various internal and external organizations. We work closely with the Fleet, NAVSEA, the Office of the Chief of Naval Operations (OPNAV), other Program Executive Offices (PEOs). Naval Air Systems Command (NAVAIR), Space and Naval Warfare Systems Command (SPAWAR), the Missile Defense Agency (MDA), the United States Marine Corps, the Department of Defense (DoD) and private industry. Through coordination and cooperation with these organizations, as well as those of our international partners, we provide the required warfighting capability and technical support to the Fleet, the combatant commands and our allies across the globe.

The scope of our work ranges across what I like to call the "Three Fleets" - In Service, In-Construction, and In-Development. It is our job to enhance combat system mission capability to the Three Fleets with faster and more affordable upgrades that are interoperable and pace the threat. I am happy to say that PEO IWS has had many successes in these endeavors. Not only has our organization effectively managed critical legacy combat systems such as AEGIS, but we have also tested and developed groundbreaking new technologies such as the Air and Missile Defense Radar, Cooperative Engagement Capability (CEC) and the STANDARD Missile Six (SM-6). All of these programs are currently designated



and SM-6) are already operational in the Fleet.

To provide the absolute best capability to our Sailors, we are dedicated to demonstrating innovation in all our sea power solutions, while maintaining strong connections with the Fleet and our resource sponsors. By pursuing a "Fleet First" standard and building relationships across affiliated organizations, we have enhanced warfighting capabilities, driven down cost and embraced initiatives that support the future such as the DoD's Better Buying Power 3.0 guidance. As we look to the future, PEO IWS will continue its focus on its products and people with efforts that sustain inservice ships and Fleet readiness, introduce capabilities that pace the threat, be guided by sound systems engineering principles and maintain a professional and high performing acquisition workforce. It's through these efforts that we will continue to provide "Sea Power to the Hands of our Sailors."



Should Cost - a View From a PM's Desk

CAPT Michael Ladner, Major Program Manager for IWS 3 Program Executive Office for Integrated Weapons Systems

The third time is the charm. Or so I thought getting orders back to the STANDARD Missile (SM) program office for a third tour would certainly improve my chances for success as an Acquisition Category (ACAT) ID Major Program Manager. However, the traits of a successful program manager need to include more than just familiarity with the product line, the program office and field activities, and a strong relationship with the prime contractor.

Better Buying Power Series

Even after numerous meetings with our Navy acquisition leadership, getting to the "aha!" moment of understanding and embracing Should Cost management has taken me on a journey over half of my four year tour, and it will probably take the rest of it to show any mastery.

If you were like me originally, Better Buying Power (BBP) was first about answering data calls from the Office of the Secretary of Defense on Should Cost and competition while you focused on getting under contract, obligating your funding, and delivering and sustaining capability (products) to the Fleet.

Now, I understand that the Navy and our acquisition leadership need program managers of all ACAT levels to educate themselves and their program office leadership on the BBP principles. With this awareness, active momentum is created in obtaining measurable results to better support your program in tandem with the Navy's priorities.

In the SM-6 program, we have initiated and engaged in Should Cost management at multiple levels

AMDR Develops to Meet **PROGRAM SPOTLIGHT** Growing Array of Advanced Threats to Today's Navy

Karen M. Davis, Director for Integrated Combat Systems, PEO IWS

The Air and Missile Defense Radar (AMDR) program represents more than 80 continuous years of Naval dominance in radar technology and innovation, tracing its lineage back to the first radar installed in a Navy ship by the Naval Research Laboratory (NRL) in 1937.

The AMDR team is led by the Program Executive Officer for Integrated Warfare Systems (PEO IWS) and draws expertise from the Naval Surface Warfare Centers, the NRL, university affiliated research centers, federally funded research and development centers, and contractor support services. This David Packard Excellence Awardwinning effort is the Navy's next generation, purpose built, integrated air and missile defense (IAMD) radar, and it recently completed successful hardware and system critical design reviews (CDRs). CDRs confirm the design and technologies are mature, producible and low risk to meeting all radar performance requirements, on schedule and within cost.

Employment of the Raytheon-developed AMDR (AN/SPY-6) will first take place on the DDG 51 Flight III ships with the AEGIS Combat System "Advanced Capability Build FY2020 (ACB 20)." ACB 20 will use ACB 16 as the initial computer program basis to build upon and will be maintained in the AEGIS Common Source Library. Lockheed Martin, as Combat Systems Engineering Agent for ACB 20 remains key in the AEGIS Weapon System and is tasked with the full end-to-end integration of the AMDR (AN/ SPY-6) into the AEGIS fire control loop for DDG 51 Flight III ships, which are scheduled to deliver to the Navy in FY21 and achieve Initial Operational Capability in FY23.

The growing array of advanced threats requires detailed and demanding systems engineering of the DDG 51 Flight III AEGIS Combat System with AMDR (AN/SPY-6) in order to deliver air and ballistic missile defense while





Scalable AMDR S-Band Radar (AMDR-S)

A 2' x 2' x 2' Radar Modular Assembly (RMA) can be stacked to provide any power/sensitivity to meet any mission.

filling a critical capability gap for the surface fleet. AMDR (AN/SPY-6) will meet the growing ballistic missile threat by improving radar sensitivity and enabling longer range detection and the ability to effectively counter large missile raids. The coupling of AMDR (AN/SPY-6) and advanced missiles such as SM-6, SM-3 and Evolved Sea Sparrow Missile Block II will significantly enhance Navy IAMD capability. Not only will AMDR (AN/SPY-6) provide significant improvement over current radars, but solid state capability, open architecture and modularity will reduce maintenance requirements, make capability upgrades easier, and reduce lifecycle costs.

With CDR complete, the program advances to production and ultimately a timely delivery of this highly capable radar to the fleet. AMDR (AN/SPY-6) is on track for installation on the second FY16 DDG 51 hull and the Flight III design is on track to have adequate space, weight, power, and cooling service life margins. AEGIS air and missile defense with the AMDR (AN/SPY-6) is dependent upon the continued teaming of diverse, dedicated acquisition professionals, engineers and scientists spanning several organizations across the Navy enterprise.



AMDR on DDG 51 Flight III

Tackling the Interoperability Challenge A System of Systems, System of Models, and System of People Approach

Mr. John Fiore, Director, Above Water Sensors PEO IWS

Mr. Wajd Fakhoury, IWS 6.0 Deputy PM PEO IWS

1 The Systems Challenge

Ensuring interoperability across individual systems procured through the acquisition community has long been a challenge. The warfighter is moving rapidly toward relying on a networked force across the joint services to more effectively counter adversary activity across all mission areas. In fact, U.S. forces already operate across a heterogeneous set of networks to share information and coordinate activities. As the Navy increasingly relies on a networked force to act as a coordinated entity, it is imperative that each participant have the same understanding of the battle space-essentially every participating unit needs to have the same track picture which includes having the same track number(s), identification, etc. for any given object. Yet, several years ago (circa 2008-2010), routine operations and fleet exercises using multiple networks (Link-16 for situational awareness and Cooperative Engagement Capability (CEC) for integrated fire control) revealed major interoperability deficiencies among the naval force. Analysis of the data revealed inconsistent track pictures, largely the result of independent track sources (i.e. using local sensor), unanticipated interactions, and independent processing functions of CEC and Link-16 track data in the various combat systems. Each individual system was identified as performing within its specified requirements and successfully delivered through the DoD acquisition process. However, the end-to-end System of System (SoS) performance did not provide desired results.

<u>2 The SoS Engineering Challenge</u> Solving an SoS problem, such as the interoperability challenge, naturally involves a comprehensive approach – evaluating potential solutions in a cost effective manner, selecting a way ahead based on solid quantitative metrics, and assembling crosssystem and cross-organizational teams to execute detailed design, implementation, testing, and evaluation of the solution.

Historically, system development uses the classic systems engineering lifecycle of requirements development, prototyping, production, and fielding as applied to and solely focused on a single system. This approach, colloquially referred to as "stovepiped" development, results in numerous challenges that may emerge when multiple independently developed systems interact. Adverse interactions are often unanticipated by the designers of the individual systems and only found late in development when these systems are already deployed or in very late stages of testing where design changes are difficult and expensive to effect. Essentially, it can be difficult or impossible to predict how systems might interact in the field until they are integrated. Additionally, each fielded system adds to the complexity of the overall battle space, increasing the likelihood of unintended consequences. Lastly, it often requires a tremendous amount of subject matter expertise to identify, understand, and resolve adverse SoS behavior.

Given that models and systems follow analogous development cycles, it comes as no surprise that the SoS challenges that manifest in physical systems also manifest themselves in models. Most notably, in a modeling and simulation environment, unintended interactive effects may not be discovered until models are connected. Additionally, the efficacy of a solution may not be known or quantifiable until the solution is modeled in a SoS environment, the data is analyzed, effects (intended or otherwise) are studied, and there is qualitative and

quantitative confidence that a proposed solution is an improvement over the previous state.

As of 2008, there was no force level SoS modeling and simulation capability in which the interoperability problems could be recreated and a solution could be vetted. Previous attempts to address observed interoperability issues involved consulting experts in each of the participating systems, conceiving changes to the individual systems, modifying each tactical system, and then testing the changes in live test events. The initial phase of interoperability improvements followed this paradigm. Often, results were mixed and new issues were discovered. This entire process required committing substantial resources without any quantitative proof of expected performance improvements. This lack of a viable SoS model to evaluate solutions and assess quantitative performance improvement was a critical gap in our SoS engineering. (See figure 1.)

<u>3 The Solution</u>

To address this lack of a viable SoS model, beginning with a three-year IR&D effort, followed by transition to PEO IWS sponsorship, Johns Hopkins University/Applied Physics Laboratory developed and integrated a System of Systems Interoperability Model, now known as INTEROP.

INTEROP's architecture represents a holistic simulation of the end-to-end sensor, CEC, combat system (AEGIS and SSDS), and Link 16 systems the critical elements involved in the interoperability challenge. The models consisted of rehosted tactical code where feasible. In cases where tactical software was unavailable or not easily portable to a simulation environment, models were developed, most notably for the AEGIS C&D and SGS/AC systems. The INTEROP model represents a substantial, innovative advancement in Modeling and Simulation (M&S) technology in that it provides an environment to run real-time tactical code along with system models faster than real-time in a fully automated mode. This capability allows for Monte Carlo analysis of the SoS designs. INTEROP replays live data collected from actual test events into the SoS models thereby allowing analysts to replicate behaviors observed in the field. The automated execution of models, along with automated metric tools, allowed for the first big step in the solution process - recreating the problem. Simply put, when realistic input data was used and systems and networks were modeled, the same SoS interaction effects observed in the Fleet were recreated in IN-TEROP.

The solution to the interoperability issues that ultimately became the Accelerated Mid-Term Interoperability Improvement Project (AMIIP) was originally conceived and prototyped within IN-TEROP over a three-month span from August to November 2010. Several scenarios and ship laydowns were executed in both modes – the systems "as-is," and with the improvements. The resultant metrics provided quantifiable proof that the proposed solution would significantly improve



Figure 1. The gap that was faced in interoperability modeling, as compared to traditional 6DOF and FirmTrack models for missiles and sensors, respectively.

Fleet interoperability. Results were briefed up to the flag level, resulting in a December 2010 decision to execute AMIIP, addressing the majority of the identified interoperability deficiencies. IWS ownership of the issue and leadership of the solution at the flag level were critical to meeting this challenge.

In addition to the SoS model, a critical aspect to addressing the interoperability challenge involved a systems engineering process leveraging the invaluable expertise of engineers, testers, and the warfighters with extensive experience in individual systems as well as the interoperability problems, in order to develop a robust solution. AMIIP stood up small, agile, cross-organization tiger teams of the recognized national experts across government, academia and industry, collectively representing hundreds of years of valuable experience. These teams collaborated to design the solution, model and evaluate the algorithms and implementation, test, and ultimately deliver a solution. The impact of having this expertise embedded throughout the process cannot be overstated.

AMIIP was developed in a rapid manner, essentially going from requirements to fielding in two years. The AMIIP tiger teams designed intrasystem behavioral updates and inter-system interface upgrades. As the design crystallized and implementation proceeded, INTEROP models were updated to represent algorithm and interface changes, and incorporated tactical software with the coded AMIIP changes. This allowed the AMIIP engineers to assess the validity of solutions in an end-to-end environment while they were being designed and implemented. Processes were developed to rapidly insert tactical software updates into INTEROP within hours of receiving a delivery. Due to the rapid development schedule, software updates were often completed only days

prior to the land based test events in which the new functionality would be exercised. On multiple occasions, software updates for these test events were integrated into INTEROP, and through the Monte-Carlo operation with live data replay, problems were identified, communicated back to the developers, and resolved prior to the start of the test events, resulting in significant savings in test time and engineering labor. The INTEROP modeling environment allowed the tactical software to be matured in a much more rapid and cost effective methodology than was previously possible.

Figure 2: Developing and implementing an effective interoperability solution requires a "system of systems approach"

After several land-based test events, tactical software changes were brought to the Fleet for evaluation in the Trident Warrior 2012 event, conducted with the Nimitz Carrier Strike Group. Results from Trident Warrior indicated significant improvement in Fleet interoperability performance. While additional engineering was still necessary to resolve issues discovered at-sea, Trident Warrior represented a significant advancement in Fleet performance

4 Next Steps

Following the successful Trident Warrior event, AMIIP Fleet-wide deployment on the AEGIS, SSDS, and E2-C platforms began in 2013. AMIIP implementations for the E2-D and USMC platforms are also being developed. AMIIP functionality will be standard on Navy and USMC platforms. The final phase of interoperability improvements will be developed beginning in FY2016 under the Far Term Interoperability Improvement Project (FTIIP).

Following the Navy efforts, the INTEROP model is now being used in a Missile Defense Agency study of Joint Integrated Air and Missile Defense (IAMD). INTEROP was integrated with Army and Air Force models into the "Integrated Simulation" facility at the Aviation and Missile Research Development and Engineering Center in Huntsville, Alabama. This multi-Service federation of models is being utilized by the Joint System Engineering Team to examine tradeoffs among various Joint Services system integration options and is the catalyst in an effort to bring revolutionary capability to defend against the evolving adversary threat.

5 Conclusion

In many respects, the design, development and acquisition process for individual systems has not been supportive to delivering interoperable systems to the warfighter. While interoperability has been elusive, AMIIP demonstrates it can be done. The rapid development process of AMIIP was a success due to the innovative modeling and simulation technology advances in INTEROP, the cross-program and cross-organizational collaborative approach across government, Fleet, academia, and contractor organizations, the critical involvement of system experts, and the personal, flag-level IWS leadership. Initial M&S proved concept validity with quantitative metrics prior to funding commitment decisions. Modeling the system changes during the design and development cycle and then testing actual modified tactical software allowed for rapid and cost effective identification and resolution of design and implementation issues prior to more expensive live testing. This innovative M&S-based, rapid, end-to-end, and cost-effective engineering cycle provides a new paradigm for future system of system improvement efforts. The challenge we face in the acquisition community is how to incorporate the lessons of AMIIP into our existing programs of record for the benefit of the warfighter.



Expedited Hiring Pilot Benefits All AWF Hiring

Dave Mailander, Recruiting Division Director Naval Acquisition Career Center

The Department of the Navy's (DON) Office of Civilian Human Resources (OCHR) released the Expedited Hiring Authority (EHA) pilot, March 3, as part of their Operation Hiring Solutions strategy. The basis of the EHA pilot is to find efficiencies and streamline end-to-end hiring. This pilot introduces a change to implementation guidance whereby referral, consideration and selection can be achieved not only through a *vacancy announcement* (certificate of eligibles) but also through *name requests* at the entry level (GS-5 through GS-7), mid-level (GS-9 through GS-13) and higher levels (GS-14 through GS-15). This is good news for Naval Acquisition and the Naval Acquisition Development Program (NADP).

The spirit of this new implementation guidance is to ensure that DON flexes this to the greatest extent while taking advantage of added flexibility for DAWIA position hiring for our portfolio of acquisition career fields. *Vacancy announcements* can either be open for a minimum of two days for short-term and two months for long-term job opening announcements (JOA) based on type position and availability of qualified candidates in the market. Assessments will be driven by OPM standards for each series and position level (e.g. ACWA). Hiring managers may request a certificate of eligible candidates from the JOA. It is important to note that veteran's preference applies and preference eligible candidates will be given first consideration.

Alternatively, hiring managers may submit a *name request*, using a request for personnel action (RPA), to the OCHR operations center to expedite the appointment of qualified candidates identified through command targeted recruitment efforts. The *name request* RPA must include a brief narrative detailing why the selected candidate was the best qualified and any supporting documentation where a selective placement factor (SPF) or quality ranking factor (QRF) was used. The OCHR operations center will verify the qualifications of the *name request* candidate, but will also review JOAs that are open or have been closed within the previous 120 days for Interagency Career Transition Assistance Program (ICTAP) and Priority Placement Program (PPP) eligibles.

Commands should consult with the local servicing human resource office (HRO) or OCHR for specifics related to the overall command hiring efforts and how this fits.

For NADP, the addition of the *name request* option allows managers to expedite hiring by submitting the resume and other supporting documentation (i.e. transcripts), of the best qualified candidate, to the NACC for execution of the existing NADP allocation. To date the NADP and DON's System Commands have achieved the following results via this new pilot (shown in average days):

- From submission of complete packet to NACC approval ≈ 2 days
- From NACC approval to execution of preliminary offer \approx 7 days
- Total Pipeline \approx 9 days per hire
- Total Hires: 78 Entry and 9 NAAP hires in 90 days

From a processing perspective, commands should be cognizant of the following key points on submitting packages for your recruit fill actions:

- Resumes should be complete enough to justify the Entry Level or Associates position for which the individual is being nominated.
- Specialized experience, (critical to NAAP nominations) on the resume needs to closely align with the requirements of the position description for the job series you are seeking to fill.
- RPA's and supporting documentation will be submitted by
- NACC, for *name request* processing, to OCHR Stennis. - Commands are encouraged to target veterans and underrepre-
- sented groups with this hiring initiative.

Early indication is that this <u>pilot has huge benefits for</u> not only NADP but <u>the entire acquisition workforce</u>. We highly encourage commands to

leverage this new tool in executing FY15 hiring. For more information on the EHA pilot, please contact the NACC Re-

cruiting Division Director (717) 605-1029 or the Recruiting Team Lead at (717) 605-2248.

Editor's note: The Priority Placement Program (PPP) is the DOD program directed towards reducing adverse effects on employees who are impacted by reductions-in-force (RIF), base closures, realignments, consolidations, contracting out, position classification decisions, rotation from overseas, and transfers of function (TOF). Affected employees may register for referral to DOD vacancies that may occur in areas of interest and applicability for displaced members. The Interagency Career Transition Program (ICTAP) is the Federal version of PPP whereby displaced personnel working in other agencies may apply for consideration for DOD vacancies in their areas of interest.



BBP from page 2

to help ensure the program's success, which I define as delivering affordable capability to

the hands of our Sailors. 'Should cost' management starts with understanding your Will Cost budget that typically comes from an independent cost estimate at a major milestone. From that point, it's "game on" for the program manager and the staff. We needed to establish a layered Should Cost approach to constantly look for those opportunities to save funding or avoid cost increases and to be able to self-fund program execution challenges or to return funding to the sponsor for higher Navy priorities without impacting delivered capability.

SM-6 Should Cost opportunities need to be identified at multiple levels - it's all about filling the 'should cost' idea hopper. An Assistant Secretary of the Navy for Research, Development and Acquisition-initiated Joint Management Council (JMC) between Navy, Air Force and Army Program Executive Offices with Raytheon Missile Systems (RMS) vice presidents create an open and transparent dialogue on quality and affordability. In leveraging the JMC, NAVSEA and NAVAIR weapons, program managers (PMs) have started a government-only Navy JMC to share 'should cost' initiatives across the PMs with RMS products. SM has also collaborated with the missile PMs at the Aegis Ballistic Missile Defense Office for common SM components contracting opportunities.

SM-6 is also a member of a common active missile seeker family creating opportunities across three program offices (Air Force and Navy) for the production floor, support, engineering, personnel, capital equipment and security environments. There is also some lift opportunity from the Surface Ship Weapons portfolio for which I am the Major Program Manager, and includes a lot of products at RMS. Finally, it's about knowing your product costs down to the washer-level for meaningful negotiations support.

Bottom line, it's a team sport. This isn't just the PM's job, but should be a prime focus for everyone across the program office. Educate your office on BBP and Should Cost management. Then, challenge them to continue to identify and implement those opportunities. It becomes a win-win for all.

NAVSEA Warfare Centers Make Changes to NEEC



NSWC Public Affairs Office

WEST BETHESDA, Md. – The Naval Sea Systems Command Warfare Centers (NAVSEA WCs) announced new changes to the Naval Engineering Education Consortium (NEEC) at the NEEC Annual Meeting, Apr. 7.

The purpose of the NEEC is to cultivate a world class naval engineering workforce through college-level student participation in project-based research that targets the Navy's most relevant technology needs. The new changes to the NEEC program are based on an enterprise framework that will be managed by NAVSEA WC headquarters and executed by all nine NAVSEA WC Divisions, underpinned by a Broad Area Announcement (BAA) released by NSWC Indian Head Explosive Ordnance Disposal Technology Division (NSWC IHEODTD) in February 2015.

"With the new NEEC BAA, there is an increased emphasis on linking students with internships and employment opportunities within NAVSEA," said Donald McCormack, Naval Surface and Undersea Warfare Centers Executive Director. "The new changes also provide more flexibility for the Warfare Center Divisions to work directly with the educational institutions that participate in the NEEC program."

In 2010, the NEEC was established as a joint educational initiative between NAVSEA, the American Society of Naval Engineers (ASNE), the Society of Naval Architects and Marine Engineers (SNAME) and more than 20 educational institutions across the country, led by the University of Michigan. Under the new BAA, all research-oriented educational institutions have the opportunity to propose NEEC projects; the proposals will be reviewed by the NAVSEA WC Divisions and competitively awarded directly to the respective educational institution. The PATHWAYS intern program provides undergraduate students the opportunity to explore federal careers while completing their bachelor's degree. The NREIP (Naval Research Enterprise Intern Program) is a ten-week intern program that provides opportunities for undergraduate and graduate students to participate in research, under the guidance of an appropriate research mentor, at a participating Navy laboratory.

"With the BAA, NEEC research projects can be conceived and started on a much shorter timeline," said Kirk Jenne, NEEC Program Manager at the Warfare Center headquarters. "The Warfare Centers will have flexibility to select and shape NEEC project topics and then fund multi-year research projects at participating colleges and universities."

Approximately 200 NEEC students, professors and NAVSEA WC Division scientists and engineers from across the country participated in the



Naval Surface Warfare Center, Carderock Division (NSWCCD) naval architect Brandon Laing briefs the Naval Engineering Education Consortium students about the science behind pressure sensors used for a shock test in the NSWCCD Test Pond facility in West Bethesda, Md., April 7, 2015. (U.S. Navy photo by Nicholas Malay)



Naval Surface Warfare Center, Carderock Division (NSWCCD) naval architect Michael Goodman briefs Naval Surface Warfare Center (NSWC) Commander Rear Adm. Lorin Selby, NSWC Chief of Staff Capt. Randell Dykes and the Naval Engineering Education Consortium students in the David Taylor Model Shop at Naval Surface Warfare Center, Carderock Division in West Bethesda, Md., April 7, 2015. Goodman explains the scale model building process used at NSWCCD. (U.S. Navy photo by Nicholas Malay)

NEEC annual meeting, a two-day exchange that focuses on student and faculty research. Students had the opportunity to present more than 50 separate research projects related to Navy challenges. Each project team includes students, university faculty and a NAVSEA engineer or scientist mentor.

"Students gain interdisciplinary, real-world and hands-on experience by working on projects relevant to the research of the Navy," University of New Hampshire professor, Dr. May-Win Thein said, during the NEEC annual meeting. "They learn the importance of deadlines, budgetary constraints, team work and systems integration."

Dr. Thein and NUWC Division Keyport mentor, Dr. Martin Renken, led UNH students in a project to develop control systems for modular technology to enable autonomy of multiple vehicles, including Autonomous Surface Vehicles and Unmanned Underwater Vehicles. "We hope to have a fleet of both surface and underwater autonomous vehicles that can communicate with both each other and a control base," UNH senior, Lucas Davies said. "This evolving technology could be used to map areas that may contain unknown risks, which make it dangerous for fully equipped and manned crafts."

"Within this modular technology, sensor systems and control techniques are developed to ensure the reliability and performance of the multiple vehicle systems and their robustness against various environmental disturbances," Dr. Thein said.

NSWC is currently comprised of seven echelon-four Divisions: Carderock, Corona, Crane, Dahlgren, Indian Head Explosive Ordnance Disposal Technology, Panama City and Port Hueneme, as well as two echelon-five commands: Ship Systems Engineering Station (part of Carderock) and Combat Direction Systems Activity (part of Dahlgren). Naval Undersea Warfare Center (NUWC) is comprised of two echelon-four Divisions: Newport and Keyport, as well as one echelon-five command: Naval Sea Logistics Center (NSLC) (part of Keyport). The NAVSEA WCs represent approximately 30 percent of the Navy's engineering and scientific expertise and provide "full spectrum" technical advice and solutions to our partners in support of Naval platforms and systems.

MCSC Engineers Pre-qual as Top Testers

Jim Katzaman, MCSC Office of Public Affairs and Communication

MARINE CORPS BASE QUANTICO, Virginia—Three Marine Corps Systems Command (MCSC) engineers, one of whom is assigned to Program Executive Officer Land Systems, are among the first group prequalified as chief developmental testers in the Department of Defense.

The engineers are part of a pilot program for the test and evaluation career field. A DoD-wide Joint Pre-Qualification Board was instituted by the Office of the Undersecretary of Defense for Acquisition, Technology, and Logistics. This board of senior experts reviewed nomination packages to determine whether training, education, certification and experience met pre-qualification requirements for chief developmental tester key leadership positions. The personnel found pre-qualified by the board for such positions, though, will still need to compete for any openings.

The chief developmental tester for a major defense acquisition program is responsible for coordinating the planning, management and oversight of all developmental test and evaluation activities for the program.

The engineers found pre-qualified for MCSC are Dr. Karen McGrady, chief developmental tester for Global Combat Support Systems-Marine Corps; Charles "Mike" White, PEO LS lead developmental tester; and Dr. David Rathgeber, director of operations for Marine Corps Tactical Systems Support Activity, Camp Pendleton, California.

As long as they maintain their test and evaluation acquisition career field currency, they will remain pre-qualified as chief developmental testers in DoD.

"The pre-qualification board was formed to implement higher standards to improve professionalism of the acquisition workforce," said Col. Benjamin Stinson, director of the MCSC Developmental Test and Evaluation Division. "Because this was a pilot program, other key leadership position competencies such as program manager, engineering, logistics and contracts can expect to participate in Joint Pre-Qualification Boards in the future."

McGrady is responsible for all developmental testing for Acquisition Category I and Major Automated Information System programs. She represents the program manager to external Office of the Secretary of Defense-level test agencies such as Operational Test and Evaluation, and Developmental Test and Evaluation. She is also the subject matter expert and career field manager for test and evaluation for GCSS-MC. "I'm very proud of my selection," McGrady said. "The KLP board process adds much needed rigor to the selection of DOD personnel to key leadership positions."

The pre-qualification criteria were developed by Undersecretary of Defense for Acquisition, Technology and Logistics Frank Kendall and his team, along with the service directors for acquisition career management. They emphasized the cross-functional train-



ing essential to lead the primary competency areas for acquisition programs. This includes program management, test and evaluation, systems engineering, logistics and contracting, among others.

"This experience enables me to understand the 'big picture' of successful acquisition," McGrady said. "It gives me the expertise to effectively drive the process of acquiring first-rate capability on time and at the best price for our warfighter customer."

White is the PEO LS advisor to the Program Management Offices, Department of the Navy and OSD regarding the test strategy development and testing of PEO LS programs. He also leads the development of the PEO LS test and evaluation community.

"I appreciate being acknowledged as qualified to hold the ultimate T&E billet, that of chief developmental tester," White said.

Rathgeber earned his pre-qualification selection while serving in the MCSC DT&E Support Branch at MCTSSA. He also helped review and establish DT&E policy in line with Department of the Navy guidelines as well as write point papers and manage test ranges.

"It was gratifying to be recognized for the work I've done over the years," Rathgeber said. "My work has been at the execution level in support of both developmental and operational tests. I was very pleased to see that all phases of testing and support were considered by the board."

DON Leadership Holds Cybersecurity Test and Evaluation Summit

Mike Said, DON T&E Office, DASN (RDT&E)

Department of Navy (DON) Test and Evaluation (T&E) executives and subject matter experts met, June 10-11, at Naval Surface Warfare Center Port Hueneme Division in Oxnard, Calif. to discuss the critically important aspect of cybersecurity testing for acquisition programs, and how to improve, integrate and better align efforts. The summit's objective was to address a "Naval Enterprise Approach to Implementation of an Efficient and Effective Cybersecurity T&E Strategy" with the theme of information sharing, decision making and action planning.

Over the two-day summit, each command briefed their "view" of the Cybersecurity T&E Environment, their current state (as-is), their vision state (to-be), their shortfalls/gaps/challenges, and their alignment needs. Discussion and identification of issues, needs and collaboration areas followed each presentation to address improved T&E strategy development, actions needed to mitigate shortfalls and accomplish goals, identification of action owners, and, eventually, timeline and resources needed for making forward progress. The top three priorities identified during the summit to enhance acquisition program support in the area of T&E were: 1) *improved requirements for test programs*; 2) *identification, alignment and funding of capabilities to support cyber T&E*; and 3) *improved hiring, development and retention of a cyber T&E workforce*.

DON T&E leadership who attended the summit included: Dr. Bill Luebke, SES, NAVSEA Warfare Center T&E Executive; Col Keith Moore, Marine Corps Operational T&E Activity; Col Benjamin Stinson, MCSC DT&E Division; RDML Michael Moran, NAVAIR Assistant Commander for T&E; Mr. Carroll (Rick) Quade, SES, DON T&E Office, DASN (RDT&E)/N84C; Jeff King, SPAWAR T&E Competency Lead; and RADM Jeffrey Penfield, Commander, Operational T&E Force.



Attendees of the DON Cybersecurity Test and Evaluation Summit held June 10-11 at NSWC Port Hueneme Division, Oxnard, Calif.

NPS obtains DAU Equivalency **CAREER FIE** for 815/835 Curricular Program Courses

Erin Miller, AWF DAWIA Career Manager

The Naval Postgraduate School has obtained DAU equivalency for the courses listed in the table below for the Master of Acquisition & Contract Management -815/835 Curricular Program. The December 23, 2014 memo signed by DASN AP, Mr. Elliot Branch and previous DACM, Ms. Rene Thomas-Rizzo, "Extension - Fulfillment for Acquisition & Contracting Course via Graduate Education at the NPS through 31 March 2015" has expired. Upon graduation, students may individually apply for "equivalency" for specific courses completed as they are considered acceptable towards

meeting current acquisition career field certification training requirements by following the process in the DON DAWIA Operating Guide dtd June 24, 2014, Chapter 13, section 13.9.

NOTE: The courses listed below grant <u>MOST</u> of the core certification requirements for **CON**, but <u>NOT ALL</u>. (It does not include the Distance Learning / Continuous Learning courses.) Members must still meet all certification requirements (training, education and experience) and then MUST APPLY for certification.

Click here for the current DAU Equivalent Course Listing for DOD Schools

NPS Courses	DAU Equivalent
MN3221- Principles of Acquisition & Program Mgmt-1 (3-0)	ACQ101/201-(ACQ202/203), PMT251, PMT257, EVM101, BCF103
MN3312- Government Contracts Law (4-0)	CON216, ACQ370
MN3222- Principles of Acquisition & Program Mgmt-2 (3-0)	ACQ101/201-(ACQ202/203), PMT251, PMT257, EVM101, BCF103
MN3315- Acquisition Mgmt & Contract Admin (4-0)	CON200, 280, 290
MN3320- Contract Cost and Price Analysis (3-0)	CON170, 270, 290
MN3321- Federal Contract Negotiations (3-0)	CON170, 270, 290
MN3318- Contingency Contracting (3-0)	CON234, 334
MN4311 - Contracting for Services (3-0)	ACQ265, CON200, 280
MN4371- Acquisition and Contracting Policy (4-0)	CON360

Working with you to achieve mission success



Training | Knowledge Sharing | Consulting

ACQUISITION LEADERSHIP CHANGES

Welcome Aboard!

Principal Civilian Deputy ASN(RD&A)

Ms. Allison Stiller

Deputy ASN(RD&A) (SHIPS)

Ms. Gloria Valdez

ACAT I Program Managers (PMs)

CAPT Robert Croxson Multifunctional Information Distribution System (PMA/PMW-101)

> Mr. Steven Pinter Medium Tactical Vehicle Replacement (PMM-206)

2014 DON T&E Awards Ceremony Held at Pentagon Hall of Heroes

Mike Said, DON T&E Office, DASN (RDT&E)

On April 23, 2015 RADM Mathias Winter, Department of the Navy (DON) Test and Evaluation (T&E) 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 2014 DON T&E Awards Ceremony. This was the third year for this competitive awards program which recognizes the outstanding efforts and achievements of developmental and operational testers in support of naval acquisitions programs.

DON T&E Lifetime Achievement Award recognizes a member of the DON T&E workforce who has committed their career to providing outstanding contributions to their organization and the T&E community at large. This



Shown Left to Right are: RADM Winter, N84, Mr. Jon Anderson, ACETEF, NAVAIR, and Mr. Rick Quade, SES, DASN (RDT&E)/ N84C

year, *Mr. Jon Anderson*, Chief Engineer of the Simulation Division at the Air Combat Environment Test and Evaluation Facility (ACETEF), NAVAIR, the most advanced installed systems test facility in DOD, was presented the

award. Mr. Anderson is a recognized authority on air domain simulation and his 25 years of service has resulted in numerous contributions in the advancement of live, virtual, and constructive testing that has ensured U.S. dominance in air warfare. Mr. Anderson has directly led efforts to integrate highly unique simulator and stimulator assets with numerous Navy platforms and programs, to enable the most efficient and effective testing possible, significantly reducing the need for flight testing in complex sensor-rich radio frequency environments. These efforts have, in turn, significantly reduced Navy program costs and schedule in this highly specialized arena. Mr. Anderson has left an indelible impact in air warfare simulation supporting the field of test and evaluation, and in turn deployment of highly capable air warfare systems to the warfighter.

DON Lead Tester Award was presented to *LtCol Patrick Moran*, Air Test and Evaluation Squadron Two Three, NAVAIR. While simultaneously serving as Government Flight Test Director and Director of Test and Evaluation



Shown Left to Right are: RADM Winter, N84, LtCol Patrick Moran, Director of T&E for F-35 ITF, NAVAIR, and Mr. Rick Quade, SES, DASN (RDT&E)/N84C

for the Patuxent River F-35 Integrated Test Force (ITF), LtCol Moran combined executive leadership and engineering acumen to lead a 920-member

government and industry team to accomplish the highest levels to date of F-35 developmental testing. LtCol Moran carefully managed test point dependencies and prioritized test envelope expansion to overcome a 45-day setback following a critical engine failure that grounded the F-35 fleet, and was able to maintain the schedule for the USMC F-35B Initial Operational Capability milestone. Against significant technical challenges, he also developed a risk-managed test plan and secured senior stakeholder support to sustain steady progress through F-35C Carrier Suitability testing, culminating in the first F-35C carrier arrestment onboard USS NIMITZ. Through his leadership, the F-35 ITF was able to provide focused engineering data and mission-relevant assessments of the F-35 Naval variants to inform key DOD acquisition decisions for the Joint Strike Fighter program.

DON Award for Technical Excellence at a T&E Facility or Range was presented to Mr. William Harney, Site Director for the Southeast Alaska Acoustic Measurement Facility (SEAFAC), Naval Surface Warfare Center,



Shown Left to Right are: RADM Winter, N84, Mr. William Harney, Site Director for SEAFAC, NSWC CD and Mr. Rick Quade, DASN (RDT&E)/N84C

Carderock Division (NSWC CD). SEAFAC is the Navy's only full scale submarine measurement facility in the Pacific, and the only U.S. facility able to statically suspend a submarine in water for acoustic testing. Mr. Harney distinguished himself by participating in SEAFAC test events as a Facilities Control Officer, and as Trial Director and lead interface with ship's force during the test. Over the last 20 years, he has been responsible for developing innovative and enhanced technical approaches and solutions at SEAFAC that have enabled the test measurement and characterization of quiet submarine signatures at reduced costs. Mr. Harney has also been involved with testing to inform the design for the OHIO Replacement submarine and VIRGINIA Class technology insertion.

DON Aspiring Tester Award recipient in the *military category* was Major Chris Brouwer, Marine Corps Operational Test and Evaluation Activity (MCOTEA). As Operational Test Project Officer for the Mobile Landing



Shown Left to Right are: RADM Winter, N84, Maj Chris Brouwer, MCOTEA, and Mr. Rick Quade, SES, DASN (RDT&E)/ N84C

Platform, Major Brouwer successfully led the MCOTEA test team to evaluate Critical Operational Issues in support of the ship's Initial Operational Test and Evaluation event. Over a nine-month period he successfully coordinated with multiple organizations to secure participation of supporting ships, Marine operating forces and expeditionary equipment embarked on the MLP to support IOT&E execution in a realistic operational environment. This momentous effort ensured that the necessary pieces and data to resolve service requirements was available in order to produce the MLP Operational Test Agency Evaluation Report.

The recipient in the *civilian category* for this award was Mr. Richard Domondon, Marine Corps Tactical Systems Support Activity (MCTSSA). As a Test Engineer, Mr. Domondon distinguished himself as a subject mat-



Shown Left to Right are: RADM Winter, N84, Mr. Richard Domondon, MCTSSA, and Mr. Rick Quade, SES, DASN (RDT&E)/N84C

ter expert for automated testing tools and techniques. He piloted the use of the Automated Test Re-Test (ATRT) tool at MCTSSA and played a key role in critical test events for Network On-the-Move for Assault Amphibious Vehicle Integration Testing, and AN/PRC-117G Radio Firmware Regression Testing. The ATRT test scripts developed by Mr. Domondon maximized the utility of the automated test tool to provide improved test efficiency and increased confidence in the test results. His singular effort resulted in a savings of over 2,500 man-hours and has provided an effective T&E capability at MCTSSA for future use.

Small Program Outstanding Tester Award in the *military category* was presented to LCDR David Belew, Unmanned Aerial Systems Test Lead and the MQ-8C Government Flight Test Director, Air Test and Evaluation Squad-



Shown Left to Right are: RADM Winter, N84, LCDR David Belew, VX-30, NAVAIR, and Mr. Rick Quade, SES, DASN (RDT&E)/ N84C

ron Three Zero (VX-30), NAVAIR. LCDR Belew's efforts were integral to testing of cutting edge payload technologies that were immediately fielded on RQ-21 Blackjack systems. LCDR Belew also led the achievement of numerous UAS T&E firsts including: MQ-8C as the first unmanned rotary wing system for DT on the West Coast, and the first UAS to fly in National Airspace on the West Coast under an FAA Certificate of Authorization waiver.

The recipient in the *civilian category* for this award was Mr. Brian Caine, Tuba Program Manager at NSWC CD. Mr. Caine was instru-



Shown Left to Right are: RADM Winter, N84, Mr. Brian Caine, Tuba Program Manager, NSWC CD, and Mr. Rick Quade, DASN (RDT&E)/N84C

mental in advancing the Navy's acoustic intelligence program and providing leadership in the conduct of submarine acoustic data calibration and collection. As a recognized authority on Acoustic Intelligence collection systems, he made numerous contributions in the development of technology and test practices that have ensured U.S. dominance in the area of anti-submarine warfare. Mr. Caine's technical expertise has been critical in developing submarine acoustic intelligence collection and capabilities. This has included a major technology refresh of the AN/BQH-9(V) Signal Data Recording Set, developing advanced shore-based screening and playback tools, and implementing certification processes and metrics to ensure submarine mission readiness.

DON T&E Working Integrated Product Team (WIPT) Award was presented to the Amphibious Assault Vehicle Survivability Upgrade T&E WIPT, PEO Land Systems, which distinguished itself through the diligent



RADM Winter, N84, left, shown with Col Leimbach, PEO Land Systems, third from left, and members of the Amphibious Assault Vehicle Survivability Upgrade T&E WIPT, with Mr. Quade, SES, DASN (RDT&E)/ N84C,right.

and thorough participation of all stakeholders in the development and completion of the Milestone B TEMP necessary to support the program's acquisition schedule. The team's reliance on integrated product and process development, and early identification and resolution of T&E issues and risks greatly improved the timeliness of the TEMP approval process. The team addressed critical issues early, such as reliability growth planning and Design of Experiments, to guide the scope of testing and reduce program risk at later stages. The open communication that was established with stakeholders at the beginning stages of the T&E WIPT set a solid foundation for the program's testing effort, and enhanced the ability of the program to deliver an upgraded and highly capable platform for the warfighter.

DON Test Team Award winner was the Mobile Landing Platform T&E Team, PMS 385, which distinguished itself through exceptional coordination, dedication, and diligence in the detailed planning and successful exe-



Members of the Mobile Landing Platform T&E Team with CAPT Henry Stevens, Program Manager for Strategic and Theater Sealift, PMS 385, far right.

cution of MLP Lead Ship test milestones involving Post Delivery Test and Trials, and Initial Operational T&E. The team expertly navigated their way through multiple test schedule challenges including the planning for ship maintenance availabilities, constantly changing demands of coordinating services for at-sea test demonstrations, and participation in two major fleet exercises. No other Navy program had previously attempted to integrate PDT&T, IOT&E and Fleet exercises into a single coordinated event. By doing so, MLP Core Capability Set was demonstrated to execute the seabasing concept at the same time that Fleet training objectives were supported. A cost avoidance of over \$3.2M, or 20% reduction to the overall MLP test program was achieved.

2014 Department of the Navy Top Scientists and Engineers Awarded

ASN(RDA) Public Affairs

WASHINGTON (NNS) -- Pentagon leaders honored 17 individuals and six teams as the Department of the Navy's top contributors to basic and applied science and engineering June 12.

Assistant Secretary of the Navy for Research, Development and Acquisition (ASN RDA) Sean J. Stackley and former Assistant Secretary of the Navy for Research, Development and Acquisition Dr. Delores M. Etter recognized 46 naval scientists and engineers for their achievement, professionalism and technical excellence during a ceremony held at the Pentagon.

During the ceremony, Stackley noted that the award recipients represent the very best of the approximately 36,000 professionals who comprise the Department of the Navy's research and engineering community.

"They are critical links in a 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.

Among the projects recognized were the Laser Weapon System prototype onboard USS Ponce (AFSB(I)15), a new cryptographic solution for unmanned applications, new personal protective equipment and combat load systems for Marines, improvements to Sailor and Marine hearing protection programs, and advancements in the effort to find ways to combat malaria in deployed settings.

Before presenting the awards, Stackley spoke to the audience about the dedication of the award recipients and the importance of their achievements to the Department of the Navy and the American people.

"They are being rewarded not just for their contribution in their field," he said. "But truly they are being rewarded for their contribution to national security."

The annual science and engineering awards program, named for Dr. Delores M. Etter, was established in 2006 to recognize the excellence of the Department of the Navy's highest performing scientists and engineers. 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.

The recipients of the 2014 Dr. Delores M. Etter Top Scientists and Engineers of the Year Award are:

Bureau of Medicine and Surgery, Naval Health Research Center, San Diego Dr. Karen Kelly

Bureau of Medicine and Surgery, <u>Naval Submarine Medical Research Laboratory,</u> <u>Groton</u> **Dr. Lynne Marshall** Marine Corps Systems Command, Quantico Mr. Fran Bonner Mr. George Moreno Pineda

Naval Air Warfare Center, Patuxent River Mr. Brian Concannon

Naval Air Warfare Center, Point Mugu Ms. Lynne Clarke

Naval Facilities Engineering and Expeditionary Warfare Center, Port Hueneme Mr. Daniel Zarate

> <u>Naval Research Lab</u> Dr. Daniel Gibson Dr. Dmitri Kaganovich Dr. Geoffrey San Antonio Dr. Mark Sletten Dr. Michael Stewart

Naval Undersea Warfare Center, Newport Dr. Harold Robinson

Space and Naval Warfare Systems Center Pacific Dr. Jose Romero-Mariona Mr. John Stastny Dr. Benjamin Taylor Mr. Walter Velasquez

Team awards The Anopheles Darlingi Mosquito Colonization Team from the Bureau of Medicine and Surgery, U.S. Naval Medical Research Unit, Lima, Peru. Team members are *Mr. Geidn Chavez*, *Ms. Karn Escobedo, Dr. Carmen Flores, Mr. Victor Lpez, Dr. Gissella Vasquez*, and *Mr. Miguel Vasquez*.

The Millimeter Wave Vacuum Electronics Amplifier Team from the Naval Research Laboratory. Team members are *Dr. David Abe, Dr. Simon Cooke, Dr. Baruch Levush,* and *Dr. John Pasour.*

The Laser Weapon System (LaWS) Engineering Team including Mr. Joseph J. Barrasse, Mr. Ronald J. Flatley, Ms. Teresa L. Gennaro, Mr. David S. McCormick, Mr. David W. Newton, Ms. Melissa A. Olson, Dr. Robert J. Pawlak, Mr. Gunendran Sivapragasam, and Mr. David D. Sullins from Naval Surface Warfare Center, Dahlgren; and Lt. Cdr. Michael J. Putnam from Naval Sea Systems Command's Directed Energy and Electric Weapons Programs.

The Fully Dense Nanocrystalline Materials Team from the Naval Research Laboratory. Team members are *Dr. Boris Feygelson* and *Dr. James Wollmershause.*

The Hybrid Rocket Propulsion Team from Naval Surface Warfare Center, Indian Head. Team members are *Dr. Vasant Joshi* and *Dr. Gregory Young.* (see excerpt below)

The Distributed Aperture Infrared Countermeasures Team from the Naval Research Laboratory. Team members are *Mr. David Merritt Cordray, Dr. Greg Lynn, Mr. Roger Mabe, Dr. Hugo Romero,* and *Mr. Kenneth Sarkady.*

Hybrid Rocket Propulsion Team Recognized

NSWC IHEODTD Public Affairs

(excerpt from Release #06-01)...

Dr. Gregory Young and Dr. Vasant Joshi were recognized for development of a hybrid rocket fuel that performs as well as solid rockets while creating a safer system that is throttle able and has the ability to be stopped and restarted in flight. The new boron-based system overcomes traditional difficulty of inefficient combustion with boron by elimination of hydrogen in the composition. The increased performance was demonstrated in fiscal year 2014 using a sub-scale rocket motor test stand constructed at the command.

"We're extremely proud of Dr. Joshi and Dr. Young," said NSWC IHEODTD Technical Direc-

tor Ashley Johnson. "Their work on Hybrid Rocket Propulsion represents a significant advancement in technology by introducing the possibility of throttling a rocket motor that allows for greater mission flexibility. This could provide missiles the ability to loiter then accelerate to engage once the target is acquired. Their accomplishment required exceptional technical rigor and a strong understanding of combustion, rocket propulsion and the underlying sciences. It also represents this command's commitment to develop and transition new products and services that increase warfighting capabilities."



Dr. Vasant Joshi (*right*), senior materials scientist; and Dr. Greg Young, propulsion engineer and program lead

PEO IWS Employee Takes Advantage of Opportunity through Naval Acquisition Development Program

Robert Auger, LCL, PEO IWS



Fresh out of college, I really had no idea what I wanted to do with my life. One thing I knew for certain was that I needed to get out of the classroom ASAP, but I could never see myself in a place without learning and growth opportunities.

That's when I heard about the Naval Acquisition Development Program (NADP)... it seemed like a perfect blend of education, onthe-job training and meaningful work.

I graduated from The Johns Hopkins University in 2011 with a degree in Mechanical Engineering. However, the position I ended up applying for, and the role I would enter the NADP with, was in the logistics competency within the Program Executive Office for Integrated Warfare Systems (PEO IWS). Now that it has been a few years, I think I can be perfectly frank and say I had no idea what that meant. What was a logistics competency? What was PEO IWS? The first few days may have been a little overwhelming getting acclimated to the Navy culture, but I quickly found out that everyone was willing to help; I just needed to ask the question.

That is what makes the NADP so great and why I have recommended it to so many recent college graduates. The NADP gave me the opportunity to ask questions and learn, whether it was at a team meeting or a meetings with senior executives, folks wanted to talk about their work and projects. I was fortunate enough to do a rotation with Team SHIPS in PMS 400D8, which is responsible for the Flight III upgrades to the DDG 51 class of destroyers. Before this rotation, I had spent most of my time working on the weapon system side, so the 400D8 Team had to give me a crash course on what makes a ship a ship. Part of that education involved visiting the Bath Ironworks (BIW) Shipyard in Bath, Maine, where I was able to see the work in progress on several destroyers. It was fascinating to walk amongst the steel sheets and beams before they even resembled a warship. Touring BIW revealed how precise the construction of these ships has to be.

The highlight of my two plus years with the NADP was a three-month rotation working with the AEGIS Modernization (AMOD) San Diego Team. I split my time between two major overhauls for the USS BENFOLD (DDG 65) and USS PRINCETON (CG 59), each being in very different stages of their AMODs. When I arrived in San Diego, PRINCETON was just about to enter dry-dock (something I was able to witness). I was able to assist with Hull, Mechanical and Electrical (HM&E) tasks with the goal of preparing the ship for its time in dry dock. Conversely, BENOLD had just left dry-dock and the work I took part in was focused on getting the new weapon system up and running. Every week, I would rotate between different weapon systems components: AEGIS Display Systems, Vertical Launching System (VLS), Fire-Control System (FCS), SQQ-89, SPY, etc. What I found most useful about this rotation was that if I had a question about how something worked, I could actually go to the system and see the answer, not just read a few sentences from a manual or listen to the verbal explanation from a technician.

Upon completion of the NADP, I started working permanently with PEO IWS 3A-STANDARD Missile. I am responsible for the Modeling & Simulation (M&S) for both SM-2 and SM-6 and am working with the Test & Evaluation (T&E) team to get SM-6 Block I to Full Operational Capability (FOC). Reflecting back on the NADP, I learned so much from so many. As a Mechanical Engineer in a Logistics Career Field, I experienced two different sides to the Navy acquisition process, which I know will prove extremely valuable moving forward with my career. Most importantly, the NADP showed me I don't necessarily need to know exactly what I want to do with my life (I quickly learned most people don't). What's important is to continually learn and take advantage of every opportunity given to you, as I intend to do as I've found education, continuous training and meaningful work through NADP and the job that experience culminated in.

Calendar & Events

July							
Su	М	Tu	W	Th	F	Sa	
			1	2	3	4	
5	6	7	8	9	10	11	
12	13	14	15	16	17	18	
19	20	21	22	23	24	25	
26	27	28	29	30	31		

August						
Su	М	Tu	W	Th	F	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23/30	24 31	25	26	27	28	29

	S	ept	tel	ıbe	r	Kilroy W ^{as} here
Su	М	Tu	W	Th	F	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

Acquisition Events			
27-31 JUL	PM Workshop		
29 JUL	AWF Summit		

04 JUL Indepen 07 SEP Labor D

Independence Day (observed 03 JUL) Labor Day

Federal Holidays

Director, Acquisition Career Management Office of the Assistant Secretary of the Navy (Research, Development and Acquisition) 1000 Navy Pentagon, Washington DC 20350-1000 <u>http://www.secnav.navy.mil/rda/workforce</u> Ph: (703) 614-3666 Fax: (703) 614-4262

THIS PAGE INTENTIONALLY LEFT BLANK FOR PRINTING



THIS PAGE INTENTIONALLY LEFT BLANK FOR PRINTING



THIS PAGE INTENTIONALLY LEFT BLANK FOR PRINTING

