NAVAL SURFACE WARFARE CENTER

INDIAN HEAD EOD TECHNOLOGY DIVISION

NAVSEA

WARFARE CENTERS

Indian Head EOD Technology Division

YEAR IN REVIEW 2018

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Command Mission: *To research, develop, test, evaluate, manufacture and provide in-service support of energetics and energetic systems. Provide Sailors, Soldiers, Marines and Airmen with information and technology to detect, locate, access, identify, render safe, recover, exploit and dispose of explosive threats.*

Commanding Officer
Capt. Scott Kraft

Technical Director
Ashley Johnson, SES

Director, Public and Congressional Affairs Division
Becky D'Ambrosio

Editor-in-Chief
Josh Phillips

Associate Editor
Carolyn Gwathmey

Layout and Design
Matthew Getz

Photography
Matthew Poynor
Todd Frantom

Content Managers
Oliver Barham
Holly Dodds
Erin Ferriter
Raeshia Bennett
Lisa Griffith
Mike Hoglund
Dan Pines
Christine Farrell
Christy Mitchell
LaShawnia Martin
Ray Geckle
Tami DeMarr
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Michelle Hinkle
Scott Bumgarner
Dr. Chris Wilhelm

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COMMANDER'S ASSESSMENT

Before moving on to a new year, it is important to reflect on the past year to understand where we have been, where we are, how we arrived here and then take those valuable lessons learned into the new year.

In assessing the command's direction and achievements for 2018, I define our accomplishments in terms of consistency and alignment. Are we being consistent with respect to our intent and focus on the mission? Have we ensured our priorities align with the "National Defense Strategy," the Navy's "Design for Maintaining Maritime Superiority" and the Naval Sea Systems Command's Campaign Plan 2.0 to "Expand the Advantage?"

Yes, I am pleased with our overall progress and accomplishments and have faith in the execution of our strategic plan even as there remains more work to be done. We need to continuously and relentlessly improve and not rest on our laurels. As I frequently assert, we are a remarkable organization of extraordinary professionals entrusted with a vital mission in an unprecedented time of opportunity and responsibility. We have a clear and compelling mission and the timing to answer that call is now. Know that I have resolute trust in each and all of you: our talented, dedicated and professional workforce.

Our nation's forward deployed forces are postured today, tonight and tomorrow against grave threats. This reality merits our daily urgency in our shared sense of purpose. We must effectively and efficiently decide with acute conviction how and where we expend our energy and spend our resources.

Naval Surface Warfare Center Indian Head Explosive Ordnance Disposal Division Technical Director Ashley Johnson and I released the 2018 Guidance and Priorities in January: our plan to better the command, guide the workforce, and align with strategic guidance. In addition to sharing our vision moving forward, we want you to know we are diligently committed to providing the tools necessary to provide timely and advantageous capabilities to our warfighters.

We established the chief learning officer position this year to help guide our workforce development priorities, while ensuring alignment with mission execution and command strategic initiatives. The CLO efforts included the establishment of Indian Head University, directing the command's efforts with our educational partners, and leading the People Initiative to "Enhance Employee Development and Knowledge."

We also focused on the restoration of our aged infrastructure, which is necessary for mission assurance, quality of life and fiscal sustainability. In fiscal year 2018, we executed more than double the historic amount of sustainment, restoration and modernization investments. Our Infrastructure Division worked tirelessly to modernize and renovate some of our buildings including the command's Velocity Lab and building 154, which will serve as the future home of the Chemical, Biological and Radiological Division. We have also begun the earnest and progressive assimilation of our CBR-D coworkers.

Since becoming your commanding officer, one of my top priorities is to ***build a greater sense of us.*** In my view, this is a lot like the proverb of "iron sharpening iron." When we come to work we must be sharp – focused, relentless and intentional – even as we remain committed, willing, ready and able to sharpen one other. We must hold both ourselves and each other accountable. We must support each other and provide our best effort daily in the shared purpose of our command. We succeed only as a team.

This ideal is reflected in our People Supporting Plan – revised and approved in 2018 – which aims to build an inclusive one-team, one-focus, one-fight workforce primed to deliver exceptional products and services. A few accomplishments include:

1) Multiple "boots on deck" trips by the Energetics Manufacturing Department to ships and aviation squadrons at Naval Base Norfolk, Virginia, to understand how our products are used by and affect the fleet;
2) Hosting of the crew of USS Mason (DDG 87) in June. Several command departments support multiple weapons systems aboard Mason, which the crew employed while in harm's way during a recent deployment. The crew spoke to us regarding their experiences and participated in an open discussion.
3) A new and improved internal command newsletter, "The Loop;"
4) The command's first-ever Maryland All-Hands event at North Point High School.

The People Supporting Plan, Version 2 will help address concerns you expressed in the 2017 Defense Equal Opportunity Management Institute's Organizational Climate Survey.

We continued to facilitate and support several cross-organizational workgroups to inclusively and consistently implement and monitor genuine, progressive and sustainable initiatives. We also continued to leverage the Equal Employment Opportunity, Diversity and Inclusiveness Council while synchronizing its efforts with the Professional Development Council term project to help us better understand and improve our cultural challenges.

Moreover, I assess we are aligned with the 2018 National Defense Strategy lines of effort to build a more lethal force, strengthen alliances and attract new partners, and reform for greater performance and affordability. The long-term great power competition we now find ourselves in requires us to cultivate workforce talent. Recruiting, developing, and retaining a high-quality civilian workforce is essential. We continuously strive to do this better as we continue to grow our workforce. In fact, 2018 was our third straight year of hiring approximately 100 new employees above attrition.

To stay the course, to stay sharp, and to continuously improve, we are wise to remember and enact a stanza from the *Laws of the Navy*, a poem written in 1896 by Adm. R.A. Hopwood. Each U.S. Naval Academy plebe (freshman) has to memorize this poem, and for good reasons: the lessons contained within it are as applicable today as when it was penned.

"On the strength of one link in the cable
Dependeth the might of the chain,
Who knows when thou mayest be tested?
So live that thou bearest the strain!"

As we embark on 2019, take these words to heart as you drive through our gates each and every day. We are now an organization of more than 2,100 individuals: 2,100 links in our singular chain. Don't be the weak link and don't let those around you be the weak link. The stakes are too high.

Now, as we "close ranks" and face 2019 together, know that you have my full trust and confidence, as well as my sincere respect and gratitude. More than ever, I am incredibly proud and humbled to be your commanding officer. You inspire me!

Capt. Scott Kraft
Commanding Officer
Naval Surface Warfare Center
Indian Head EOD Technology Division

STRATEGIC PLAN UPDATES

In 2014, Naval Surface Warfare Center Indian Head Explosive Ordnance Disposal Technology Division Technical Director Ashley Johnson challenged command leadership with a vision: In 10 years, NSWC IHEODTD will grow 400 work-years stronger by reshaping our industrial complex; capturing research, development, test and evaluation opportunities in energetic systems; and providing reliable, quality and affordable products and services.

This led to two years of work for creating a strategy to accomplish that vision. In 2018, the command made substantial steps toward achieving the goals.

Goal One: Modernize, restore and/or reshape NSWC IHEODTD facilities, utilities and infrastructure to ensure mission achievement and fiscal sustainability.

- The command completed a river water analysis of alternatives and hired an architectural and engineering firm to perform a conceptual study for the top two alternatives of the fire suppression system water source.
- Planning began to assume organic maintenance of heating, ventilation, air conditioning and integrated dehumidification systems in explosive buildings.
- The command initiated a five-year charter to reduce Material Potentially Presenting an Explosive Hazard contaminated equipment and facilities, and to decrease risk to the base regarding environmental impact, and increase explosive safety and cost reduction through footprint reduction.
- The command's decontamination team spent approximately $3 million for recycling approximately 368,000 pounds of metal, finishing the decontamination of building 859, and initiating the decontamination of building 497.
- The command's sustainment restoration and modernization budgets doubled from $7 million in fiscal year 2017 to $14 million in FY18. This increase resulted in twice the spending on facility repair projects. The increased budget also allowed the command to pave the extrusion plant roads, and the munitions disassembly and magazine area roads at the Stump Neck Annex.

Before and after explosives decontamination high bulk density nitroguanidine manufacturing equipment (tobacco dryer at building 498).

Goal Two: Establish Public-Private Partnerships to enhance energetic materials and systems support to the fleet.

- The command initiated several partnering discussions with private industry leaders for sustained workload utilizing critical capabilities.
- The Goal Two team completed the development of processes for all nine initiatives.

Goal Three: Develop new products and services across NSWC IHEODTD core competencies to support strategic investments and to transition advanced warfighting capabilities.

- The Navy Weapons Division in McAlester, Oklahoma, began ordnance handling equipment depot-level maintenance.
- The command accomplished critical work manufacturing CXM-AF-5/7 explosive fill for the Air Force.

Steven Anthony, Chemical, Biological and Radiological Defense Division Head, hosted the "Criticality of Navy Chemical, Biological and Radiological Defense within an Asymmetric Environment" brown bag lunch at the Indian Head Pavilion in April. The meeting focused on the CBR-D Division, which began the transfer process from NSWC Dahlgren Division, Virginia, in 2018.

Goal Four: Establish NSWC IHEODTD as the energetic materials and systems provider of choice to protect the Navy's intellectual capital while expanding delivery of core products and services.

- Streamline Acquisition Process: The command held an industry day in February where 45 potential contractors/vendors attended to hear command personnel discuss their hardware needs, a key step in the market research phase of NSWC IHEODTD's plans to initiate an indefinite quantity, indefinite delivery contract for hardware.

Goal Five: Invigorate interest of energetics to promote new RDT&E investment and the consideration of advanced energetics options within the capabilities development and acquisition processes.

- NSWC IHEODTD received $14 million in Energetics Renaissance funding for 17 new projects in FY18.

The customer advocate for science and technology business development Dr. John Wilkinson, Objective 5.1 ER Stakeholder Engagement lead, updates members of the Comptroller Department on progress and plans for the command's ER strategy.

People Supporting Plan: Advance our "Keepers of the Fire" ethos by remembering our traditions and creating our legacy through proactive, self-motivated and collaborative employees as one team, one fight focused on the warfighter and renowned for high-quality performance.

- The command revamped the People Supporting Plan Version 2.0 with six new objectives:
  - PE.1: Know and Align with the Warfighter
  - PE.2: Champion Internal Communications
  - PE.3: Grow an Inclusive, Diverse Workforce
  - PE.4: Enhance Employee Development, Knowledge
  - PE.5: Foster Excellence, Promote Success
  - PE.6: Improve Workplace, Work-Life Quality
- Performance Expectations Module Tool: The Human Resources Division implemented an automated PEM Tool for Personnel Demonstration Project employee's performance expectations for the 2018 performance cycle. The tool improves organizational performance by electronically tracking the work assignment process and allowing additional visibility into personnel contributions.

Process Supporting Plan: Provide fast, rigorous, repeatable, accurate and safe work systems.

- The Tech Rigor Revitalization Team introduced new guidance, tools and methods to help increase the rigor of the command's technical processes. By publishing a new overarching management system instruction, establishing the Basic Ordnance Technology course, and the Technology and Technical Colleges, overhauling the technical data package process, the multi-department team is on the way to improving the rigor in the four pillar programs of quality execution, system engineering, project management and safety execution to enhance project execution effectiveness.

INDIAN HEAD UNIVERSITY

NSWC IHEODTD created Indian Head University: a corporate, command-wide asset providing employees a primary web-based interface to access elements of learning and development programs, tools and information that support individual and organizational success. IHU ensures execution of a focused, consistent and holistic strategy for learning and development that aligns with command mission priorities, reduces duplication of efforts, and supports knowledge sharing. BOT, a five-day course for new scientist and engineers, was the first course launched within the IHU Technical College.

STRATEGIC LOCATIONS

Crane, Indiana: 6 civilians
- *Design and construct portable armories*
- *Provide automation for front gates*

Indian Head, Maryland (two sites): 1,741 civilians, 1 military
- *NAVSEA Center of Excellence for Energetics*
- *Department of Defense EOD program lead*
- *Combined Explosives Exploitation Cell platoons*

Ogden, Utah: 20 civilians
- *Co-located at Hill Air Force Base*
- *Cartridge Actuated Device/Propellant Actuated Device Air Force Integrated Product Team*

Picatinny, New Jersey: 256 civilians, 1 military
- *Located at Picatinny Arsenal*
- *Joint Center of Excellence for Guns and Ammo*
- *Navy Package, Handling, Storage and Transportation*
- *Guns and Ammo*

Camp Pendleton, California: 4 civilians
- *Demonstration and Assessment Team*
- *Assigned to the Explosive Ordnance Disposal Department*

Norfolk, Virginia: 13 civilians
- *Demonstration and Assessment Team*
- *Assigned to the EOD Department*

Rock Island, Illinois: 2 civilians
- *Quad-Cities Caliber Cartridge Case Facility*
- *Aligned with the Systems Integration Department*

Louisville, Kentucky: 13 civilians
- *Naval Guns*

McAlester, Oklahoma: 37 civilians
- *McAlester Army Ammunition Plant*
- *Navy Special Weapons*

NAVSEA
WARFARE CENTERS
Indian Head EOD Technology Division

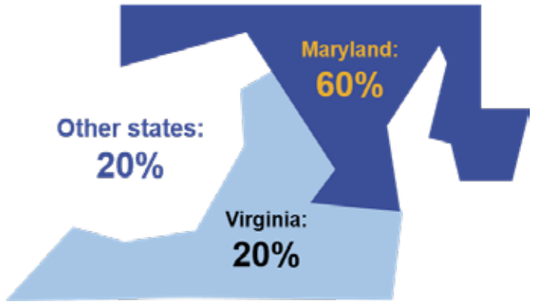
** Contractor numbers not included*

NAVSEA Warfare Centers:
10 Divisions – 1 Team

The Naval Sea System Command's Warfare Center Enterprise is comprised of the Naval Surface Warfare Center and the Naval Undersea Warfare Center. With eight surface warfare and two undersea warfare sites across the United States, the warfare centers supply the technical operations, people, technology, engineering services and products needed to equip and support the fleet and meet the warfighters' needs. The warfare centers are the Navy's principal research, development, test and evaluation assessment activity for surface ship and submarine systems and subsystems. In addition, the warfare centers provide depot maintenance and in-service engineering support to ensure the systems fielded today perform consistently and reliably in the future.

Warfare center quick facts

1. Employs approximately 25,000 personnel focused on innovation
2. Operates 129 unique technical capabilities across 10 divisions
3. Maintains more than 160 unique research, development, test and evaluation facilities
4. Provides a bridge between the technical community and the warfighter
5. Designs, develops and fields solutions for urgent operational fleet needs

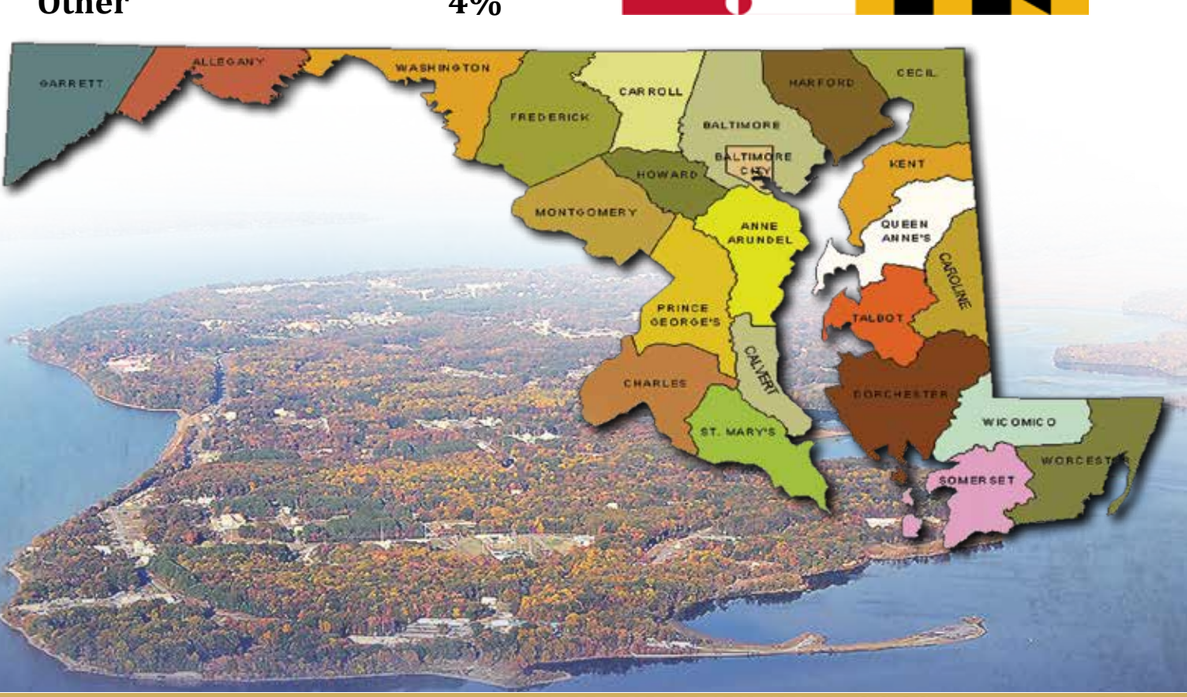


NSWC IHEODTD Total Maryland Payroll
$237.1 MILLION

FY18 Maryland Contract Dollars
$48.8 MILLION

County-by-County Employee Breakdown (Maryland)

Charles County	71%
Saint Mary's	10%
Prince George's	10%
Calvert	3%
Anne Arundel	2%
Other	4%



The command opened its Resonant Acoustic Mixer 5-gallon facility following an April ribbon cutting ceremony. Resonant acoustic mixing utilizes high intensity vibrations to create efficient particle collisions and acoustic waves. This allows for the omission of equipment such as spoons or blades, eliminating moving parts in contact with hazardous materials, and increasing safety of operations.

Following several 2017 incidents where employees were injured or fell ill while on temporary duty assignment outside the continental United States, the command recognized shortcomings in its ability to provide support to its civilian personnel. To combat these issues, the command awarded a contract in August to provide comprehensive OCONUS traveler information, medical, security and evacuation assistance support services. This service is a first time procurement for the Department of Defense and Naval Surface Warfare Center Indian Head Explosive Ordnance Disposal Technology Division's contract will serve as a model to all activities and agencies seeking similar services. ❖

Personnel from USS Mason (DDG 87) visited the command in June. Several departments across NSWC IHEODTD support multiple weapons systems aboard Mason, which the crew engaged during their 2016 deployment. The crew spoke to command employees regarding their deployment and participated in an open discussion.

The Systems Engineering Department's Indirect Fire Munition Program completed a build of flash bang charges in March, which were incorporated into the IDFM mortar body and shipped to Hawaii for the summer's 2018 Rim of the Pacific live fire exercises. The Research, Development, Test and Evaluation Department's High Energy Materials Branch also supported RIMPAC by providing the Mark 99 propellant used for testing and interior ballistics support. NSWC IHEODTD received feedback saying the propellant was "getting it done for RIMPAC" and that the "... ship's crew loved the muzzle blast."

Cmdr. Matthew Myers receives his Command at Sea insignia during a change of command ceremony following the establishment of Expeditionary Exploitation Unit One as a stand-alone command aboard Naval Support Facility Indian Head in June. The Vice Chief of Naval Operations Adm. Bill Moran presided over the ceremony. Established in 2006 as an NSWC IHEODTD detachment, the unit's growth, increased responsibilities, proven capability and actionable contributions to combatant commanders and partner nations led to the Secretary of the Navy's approval in March 2017 to establish EXU-1 as an Echelon V command. Myers became EXU-1's inuagural commanding officer following the ceremony.

With the proposed transition of duties and location of U.S. Marine forces from Okinawa, Japan to Guam, construction efforts were slowed due to leftover World War II-era unexploded ordnance found in the proposed building sites. To mitigate any UXO issues, the Navy turned to the experts in the EOD department. Personnel spanning multiple branches leant their expertise to advise on the processes and procedures of operating in an UXO mission area and received praise from Commander, Joint Forces Marianas Rear Adm. Shoshana Chatfield for their effort.

"I would like to thank the personnel from your staff who supported Joint Region Marianas from July 2016 to May 2018. Joint Region Marianas continues to bolster our Munitions and Explosives of Concern management processes, activities, and response procedures," wrote Chatfield in a letter of appreciation to NSWC IHEODTD Commanding Officer Capt. Scott Kraft. "Your

personnel's professional expertise and skills have been integral in moving this critical program forward. On behalf of the entire Joint Region Marianas team, thank you for a job well done and Bravo Zulu!" ❖

COMMAND STAFF

Naval Surface Warfare Center Indian Head Explosive Ordnance Disposal Technology Division and NSWC Dahlgren Division cohosted the fifth annual Unmanned Systems Integration Workshop and Technical Exchange in August at Dahlgren, Virginia. Speakers discussed technologies and policies related to offensive payload applications via autonomous unmanned systems. Situational briefs, senior leadership perspectives, and policy background provided attendees with the information necessary to develop agile weapon systems integrated across all domains.

NSWC IHEODTD led the Navy-wide energetic assessment resulting in the January delivery of "Need for an Energetic Renaissance: Naval Energetic Strategy:" the first of its kind within the naval energetic community. This strategy resulted in a $14 million energetic plus-up in May from Congress to the Office of Naval Research for the gaps discovered in the assessment. New command research projects are focused on gaps including hypersonic and advanced propulsion, underwater formulation and advanced lethality, and modeling and simulation to accelerate capability fielding. ❖

NSWC IHEODTD Technical Director Ashley Johnson published an essay in the U.S. Naval Institute's "Proceedings" magazine in September titled "Don't Oversell Directed Energy Weapons" to renew the need and urgency of the energetics renaissance. ❖

The command initiated the Product Accelerating Concept Engine in 2018: a new process for informing, assessing and thinking about emerging energetic material systems and EOD concepts in a cross-department environment. PACE events begin with an informed threat, validated gap, or concept of operations building traceable technologies, applications or mission uses. ❖

00/TD led the development and implementation of the Consortium of Academic Partners program to integrate command institutions for workforce development, technology, partnerships, recruiting and hiring, and community engagement. ❖

The Customer Advocate Office facilitated business development efforts including the manufacture and sale of approximately 20,000 igniter grains for Raytheon Missile Systems for use in the TOW weapon system. Mark-126 Mod 0 propellant grain production was also secured with the Army's Close Combat Systems Product Office. CAO facilitated the qualification testing on the Mark-85 Mod 0 rocket motor used to provide zero runway takeoff capability. ❖

NSWC IHEODTD conducted two Basic Ordnance Technology classes in 2018. BOT training provides an overview of the full range of command engineering, design, production and test activities, geared toward new scientists and engineers with less than three years at the command and where this is their first post-degree full-time employment site. The class covered cartridge actuated device/propellant actuated device systems, types and purposes, common features and components, and design guidelines.

NSWC IHEODTD hosted the annual Quality Community of Practice meeting with participants from all NSWC and Naval Undersea Warfare Center divisions. The Community of Practice brings together the warfare center's quality directors to collaborate on matters of quality processes and systems and to establish improved practices and leverage the best practices toward the revitalization initiative.

COMMAND STAFF

Dr. Denisse Soto takes a break from work and enjoys some Halloween treats with Carl Gotzmer in October.

The CAO and the Quality Office worked to recertify NSWC IHEODTD as the Mark-77 MOD 0 refurbishment depot. The office also oversaw the testing and certification for a new Otto Fuel II detector for land-based use, along with a poly drum to provide less expensive OFII storage options for the Program Executive Office Submarines' Undersea Weapons Program Office foreign military sales customers. ❖

The Quality Office supported the Joint Alteration Installation Team Quality Management System manual update to include the Chemical Biological and Radiological Defense Division's move to the command and the corresponding transition of the Management System Manual. The manual is a directive impacting work on board ships and is vital to maintain fleet execution. ❖

The Safety Office collaborated with the Naval Ordnance Safety and Security Activity and other commands to gather input for a revision to Appendix G of Naval Sea Systems Command's safety manual for explosives. This effort included discussions with representatives from naval commands performing work using Appendix G, as well as co-leading a research, development, test and evaluation panel at the 2017 Navy Explosives Safety Workshop. The final draft of Appendix G was approved by the Department of Defense Explosives Safety Board in June. ❖

Representatives from the Safety Office traveled to the Norfolk Naval Shipyard, Virginia, in July, to meet with the Chemical, Biological, and Radiological Division of Dahlgren. Personnel received a tour of the storage and work areas to gain a better understanding of the safety hazards presented. The office also visited the System Engineering Department's Navy Weapons Division, McAlester, Oklahoma, Detachment in September for an Occupational Health and Safety evaluation and an Explosive Safety Self-Assessment of Program 10: Ammunition and Explosives Inventory Management. ❖

The Ernst and Young Ordnance Audit allowed five auditors to randomly select and view approximately

NSWC IHEODTD Commanding Officer Capt. Scott Kraft engaged command employees in conversation during several brown bag lunches throughout the year. Topics were geared toward giving employees an opportunity to meet and get to know Kraft in a comfortable, nonofficial capacity and allowed him to gain feedback in his effort to create a "Better Sense of Us."

10,200 assets for the Ordnance Inventory System Retail and conduct five "floor-to-book" location samples from command buildings in August. The results found zero discrepancies and no "Provided by Client" requests while conducting the audit. ❖

Command leadership sponsored a team to improve trust, shared purpose, sense of identity, unity, morale and esprit de corps. Beginning in 2017 and finishing in June, the team reviewed command data and advised to revamp and expand the People Supporting Plan to six objectives and 20 initiatives. The group also recommended to revitalize and resolve the actual and perceived problems with procurement. In response, the Acquisition Revitalization Project, also known as the Manhattan Project, was created. ❖

00/TD helped plan and chair the first NAVSEA Leadership in a Diverse Environment event. The 12 command representatives who attended this inaugural event initiated the command's Women In Network charter, signed in March. ❖

Velocity Lab

The year began with the Velocity Lab renovation in full swing: demolition was underway and both major and minor repairs were executed by the Corporate Operations Department's Infrastructure Division. Taking over an underused and outdated computer server room, the Velocity Lab space was designed to house a conference room/classroom, design/brainstorming area, and light prototyping room. It is flanked by a lobby entrance space, storage rooms, a small meeting room, and the office of Chief Innovation Officer Dan Pines.

The Velocity Lab hosted a sneak peek open house in 2017 mid-construction to show progress, give the workforce a chance to see the space, provide input, ask questions and learn about the active Velocity Lab projects. The lab held a soft opening in May, and has hosted meetings, demos, reviews, classes and working groups.

One of the founding goals for the lab was to drive cross-department collaboration, which saw projects grow from 14 percent in fiscal year 2017 to 70 percent in FY18: a significant achievement.

Pines also operates a small innovation research and development program at the Velocity Lab with a rolling admission style turn-in process. In its third year of existence, the program has grown from eight projects to 17 in FY18, and is open for business in FY19. ❖

EOD DEPARTMENT

From June 2017 to March 2018, the Demonstration and Assessment Team supported the U.S. Marine Corps Warfighting Laboratory in the planning, coordination and execution of the Urban 5th Generation Marine Advanced Naval Technology Exercise. The DAT provided range planning, venue coordination, logistics coordination, and range safety officers in direct support of the exercise. In total, 88 technologies were assessed in an urban warfare scenario by a U.S. Marine Corps rifle company operating alongside members of the Naval Research and Development Enterprise.

Naval Sea Logistics Center assumed responsibility in March for all receiving functions at the command's Stump Neck Annex, completing the first major milestone in the transfer of the department's receiving/warehousing functions. The team transitioned all receiving and delivery functions for the Stump Neck Annex; inventoried and transferred more than 200 line items of Naval Supply Systems Command Weapon System Support material; and transferred 49 pallets of excess and surplus material to the Defense Logistics Agency's Disposition Services. This transfer is the first part of warehouse management transition actions directed by Naval Sea Systems Command and a step toward achieving Financial Improvement and Audit Readiness compliance. ❖

The department supported a U.S. Army urgent requirement in March for deploying 22 Decision Support System Toughbooks and 88 hard drives to Explosive Ordnance Disposal forces. With the assistance of the inventory control point contractor support, these items were prepared and staged for shipment within 24 hours. ❖

Master Chief Petty Officer Jason Sparks briefs EOD field operations and capabilities to (left to right) Brig. Gen. John Allen, Director, Force Training; Frank DiGiovanni, Director, Force Training, Office of the Assistant Secretary of Defense for Readiness; and Rear Adm. Tom Anderson, Commander, Naval Surface Warfare Center, at the Joint EOD Indoctrination Day at NSWC IHEODTD's Stump Neck Annex in August. This event provides incoming EOD Program Board members, EOD action officers, and Military Technical Acceptance Board officers with a primer of the EOD mission and general knowledge of the JEOD Program.

The Logistics Division's shipping team shipped two 20-foot Conex containers in March to the DAT located at Fort Story, Virginia, to immediately assist with their storage and maintenance space. The team also consolidated, coordinated and shipped 22 pallets of EOD support materials totaling more than $1.1 million in March for a Philippine Marine Special Operations Group foreign military sales case. ❖

The International Programs Office and the EOD Acquisition and Technology Division hosted foreign visitors in April and May from the United Kingdom and Canada as part of the science and technology collaboration side of the America, Britain, Canada, Australia, New Zealand EOD information exchange agreement. ❖

Representatives from the Information Management, and EOD Acquisition and Technology Divisions participated in a June information exchange event in Sweden. This visit facilitated dialogue under an information exchange agreement and increased knowledge of Swedish Armed Forces EOD, their EOD equipment, and their research on new technologies supporting their EOD Forces. ❖

The EOD Department held its Safety Stand Down in October. The event involved team building activities including a spirited tug-of-war match to help build a sense of esprit de corps while educating department personnel on the role of safety in the workplace.

From May through August, the DAT conducted an extended user evaluation of the Robotic Target System in support of the U.S. Marine Corps Warfighting Lab at four continental U.S. sites. The DAT received warfighter feedback from more than 500 Marines on this next generation training system. ❖

The EOD Department hosted the 2018 JEOD Threat Exposition in June to answer the integral question for the EOD community: What's next for EOD? The 2018 expo featured discussions and presentations among senior EOD leadership, examining present state and potential future threats to EOD, identified capability and capacity gaps, and generated debate concerning the strategic focus of JEOD forces and future combined procurement strategies.

EOD DEPARTMENT

The EOD Department celebrated Halloween with a costume contest and the ghouls and goblins came out to show their Halloween spirit.

Command and EOD Department leadership attended EOD Day on the Hill in November at the Rayburn House Office Building, Washington, D.C. This annual event highlights the joint efforts of the EOD community across the services. Guests were treated to hands-on demonstrations that included bomb suits, tool displays and robotics.

The department's Anti-terrorism/Force Protection Branch delivered 44 armories/ magazines valued at more than $7 million to 40 different locations. The branch also designed and oversaw the installation of 28 access control points located at Washington's Naval Air Station Whidbey Island and NAS Lemoore. ❖

Department personnel supported a request from the U.S. Air Force for Man Transportable Robotic Systems, specifically the Mark-2 Talon, due to damage to their robot repair facility caused by Hurricane Michael. The systems were used to form a robotic spares pool to prevent future disruptions to the U.S. Air Force's logistics train. ❖

To ensure warfighter safety and mission success in magnetic-influence threat environments, the Logistics Inventory Control Point and Depot Branch performed non-magnetic certification and recertification testing on 60,977 material items in the NAVSUP WSS inventory. The team also executed 132 shipments to global JEOD forces, providing 1,450 pieces of tools, equipment and kits to ensure mission readiness.

2018 ABCANZ EOD WORKING GROUP
Fort Walton Beach, Florida, United States
28 – 30 November 2018

The EOD Department, in conjunction with NAVSEA, hosted the 2018 America, Britain, Canada, Australia and New Zealand EOD and Diving Information Exchange Program in Fort Walton Beach, Florida, in November. The department is designated as the technical project lead ABCANZ's IEP for EOD.

In support of the Navy's Foreign Military Sales program, the team executed 25 shipments of EOD tools and equipment to nine partner nations. ❖

In coordination with the EOD Information Management Division, personnel from the EOD Logistics Division coordinated and executed a technology refresh for the JEOD Decision Support System, which replaced key components to upgrade system reliability, improve processing speed and capacity, and function in a Windows 10 operating system environment. ❖

The Logistics Operations Branch contracting officer's representative team managed 41 contracts in support of the EOD Department and the JEOD, with $47.4 million total obligated for fiscal year 2018. The team also supported the multi-award of an $85.5 million contract for the DAT's technical services and management support. ❖

The EOD Logistics Division, under the program management of the EOD Aquisition and Technology Division, implemented the Spectrum Relocation Project. The project aims to change the radio frequencies of Mark-2 Talon robots in the U.S. Navy and U.S. Marine Corps' EOD force inventory to comply with Federal Communications Commission requirements for continental United States operations. Approximately 81 percent of the requirement – 306 systems – was converted and field tested in 2018.

SYSTEMS ENGINEERING DEPARTMENT

The Cartridge Actuated Device/Propellant Actuated Device Navy Mishap Investigation Support Team was activated by the Naval Safety Center after an AV-8B Harrier II aircraft assigned to Marine Medium Tiltrotor Squadron (VMM) 162, 2nd Marine Aircraft Wing (MAW), 26th Marine Expeditionary Unit (MEU), crashed during takeoff in April from the Djibouti Ambouli International Airport, Ambouli, Djibouti, in support of Exercise Alligator Dagger. The Marine aviator ejected and was evaluated at a nearby medical facility with no injuries noted. The AV-8B and its SJU-4/A Ejection Seat contain M218, M596, M597, and MG59 Impulse Cartridges manufactured by the command's Energetics Manufacturing Department.

The Systems Engineering Department's Technology Development and In-Service Engineering Branches supported an urgent January request by the B-2 Program Office for the Advanced Concept Ejection Seat II Safety and Sustainability Improvement Program's effort to analyze defects in an inert JM60 (CKU-5C/A rocket catapult) used for vibration testing as part of seat qualification. CAD/PAD Division personnel developed a solution preventing the defective unit from unthreading during vibration, thus avoiding impact to the environmental test schedule for seat qualification. ❖

The Densified Cast Composite Propellant effort hit a milestone when it scaled up to its first 1-gallon mix in February. DCC propellant is a variation of the shoulder-launched multipurpose assault weapon's densified propellant developed at Naval Surface Warfare Center Indian Head Explosive Ordnance Disposal Technology Division. Densifying propellant results in a significant increase in density impulse, which is ideal for rockets with limited volume, high payload weight, and subsonic final velocities. ❖

Fleet Air Reconnaissance Squadron 1 (VQ-1) notified the CAD/PAD Division in March that a U.S. Navy EP-3E Aries II aircraft experienced an in-flight oil leak

The CAD/PAD Division, CAD/PAD Joint Program Office, and the Naval Air Systems Command's Precision Strike Weapons Program Office hosted the 12th CAD/PAD Technical Exchange Workshop at the College of Southern Maryland in May. The workshop is a biennial event dedicated to enabling and promoting a better understanding of new initiatives and recent and emerging requirements.

followed by a fire warning. The aircrew activated the fire suppression system, which utilized a M179 (CCU-94/a fire extinguisher cartridge) to extinguish the fire and prevent further aircraft damage. The command received and processed an emergency repair order, which ensured replacement assets were on hand to avoid disruption of aircraft operations once repairs were completed. NSWC IHEODTD manufactured, accepted and validated the M179. ❖

Personnel from the Underwater Systems Branch attended the Urban 5th Generation Marine Advanced Naval Technology Exercise at Camp Pendleton, California, in March. The demonstration's objective was to showcase the anti-structural munition grenade's performance with a comparison shot of a frag grenade used by the U.S. Marine Corps. ❖

Department personnel supported sled testing of the Advanced Concept Ejection Seat II B-2 Safety and Sustainability Improvement Program at the Hurricane Mesa Test Facility near Hurricane, Utah, in June. The SSIP introduces the modular seat concept and other performance improvements for the B-2 ejection system, improving the maintainability of the B-2 and improving pilot survivability.

Department engineers participated in an April Dynamic System Mechanics Advanced Simulation test series at the U.S. Army Aberdeen Test Center's Underwater Test Facility in Aberdeen, Maryland, to quantify underwater explosion bubble behavior to guide the development of new features in the DYSMAS hydrocode.

SYSTEMS ENGINEERING DEPARTMENT

The CAD/PAD International Logistics Meeting was held at the College of Southern Maryland in June. CAD/PAD personnel conveyed current topics, training and emerging technologies. The meeting provided aircraft maintenance and ordnance personnel a forum to present CAD/PAD technical, logistics and supply deficiencies to program leadership for resolution.

NSWC IHEODTD leadership visited the department's Special Weapons Division McAlester, Oklahoma, Detachment in July. The group toured the new facilities and facilities under construction, were briefed on the detachment's machining and assembly capabilities, and met with the workforce.

The department completed a joint proposal with Naval Air Warfare Center Weapons Division, China Lake, California, to investigate the use of a new binder material for PAD propellant in August. The new binder will not oxidatively crosslink with air, making it more tolerant of high temperature environments than traditional binders used in PAD propellants. PADs using this material could have much longer service lives than the current items used throughout the Department of Defense. ❖

The CAD/PAD Joint Program Office celebrated the 20th anniversary of their designation to NSWC IHEODTD at the Indian Head Pavilion on the Village Green in September. ❖

A U.S. Air Force aircraft at Joint Base San Antonio-Randolph, Texas, crashed in a field during a routine training mission. Both student and instructor pilot ejected receiving only minor injuries. The CAD/PAD U.S. Air Force MIST deployed to the region to support the Safety Investigation Board and concluded all CAD/PAD functioned as designed with no anomalies noted. ❖

The Densified Propellant Future Naval Capability Program conducted down-range flight testing at the Maryland Blossom Point Research Facility's Fire-From-Enclosure structure in June to verify predicted exterior ballistic analysis.

Retired Navy Cmdr. Stan Parsons and retired Navy Capt. Stephen Bury visited NSWC IHEODTD's CAD Manufacturing Division in July to meet with employees and learn about their work. Parsons and his co-pilot, retired naval aviator Linda Maloney, ejected from an A-6E/EA-6B aircraft in 1991, and Bury helped rescue Maloney after ejection.

SYSTEMS ENGINEERING DEPARTMENT

System Engineering and Research, Development, Test and Evaluation Department engineers supported a July underwater test assembly to lift a wooden structure at the Blossom Point Research Facility in Maryland. The structure contained sensors and test articles, which provided the engineers post test data to analyze.

Gustavo Bora helps himself to a bowl of chili at CAD/PAD's annual chili cook-off in October.

Department employees scare up some laughs on Halloween.

Fuzing and Initiation Systems Branch personnel were part of a team that demonstrated a limited end-to-end mining mission thread of a smart mining capability configuration in October. The Smart Mine Initiative was launched in 2014 to revolutionize U.S. sea mining by adding non-traditional capabilities. ❖

Personnel from the Energetics Technology Branch supported FTM-45/FTO-03 Waterfront Integration Testing in September and October in preparation for Standard Missile-3 Block IIA Flight Test Mission-45, and SM-3 Block IIA Flight Test Operational-03 mission. ❖

The Micro Electro-Mechanical Systems Integrated Product Team tested custom-designed and fabricated pressure sensors in October as part of their soldier-wearable sensor system designed to assist in gathering data on potential traumatic brain injury-causing blasts. The work is funded by the Office of Naval Research's Blast Program and aims to outfit soldiers with sensors that gather data on events such as roadside bomb blasts. ❖

The department, in collaboration with the Naval Research Laboratory and Florida International University, completed a three-year study on canine generalization and discrimination. Trial support included 13 reservists from various commands and the results will help the user community understand how dogs learn to generalize odors, such as those associated with explosives, to improve training protocols.

SYSTEMS INTEGRATION DEPARTMENT

The department's Major Caliber Guns in-service engineering agent completed standard pier-side maintenance and repair aboard USS Chancellorsville (CG 62) in March. The SPMR is performed during the ship's maintenance cycle over the course of eight weeks and includes replacement of more than 600 components.

The Secretary of the Navy Richard V. Spencer visited the Navy's Quad Cities Cartridge Case Facility in Rock Island Arsenal, Illinois. Mike Hagn provided a tour and overview of the manufacturing facility that is being restarted to manufacture Navy 5-inch gun cartridge cases.

The Picatinny Arsenal community remembered Dr. Martin Luther King Jr., through a special presentation at the Lindner Conference Center in January. The Systems Integration Department hosted Dr. Randal D. Pinkett, a spokesman for the National Black MBA Association, to honor the late Dr. King. ❖

Mark-44, 30mm Gun Weapon System ISEAs completed government acceptance testing in February on newly delivered turrets. The final portion of the GAT included firing 180 rounds of AA90 ammunition at Picatinny's Navy Range. ❖

The Naval Packaging, Handling, Shipping and Transportation Division and other representatives completed nine test flights to support vertical replenishment certification of Navy ordnance

The department held its annual picnic at Lake Denmark, New Jersey, in August.

containers at Camp Lejeune, North Carolina, in March. The test was conducted in conjunction with the U.S. Marine Corps Helicopter Support Team and Army Reservist pilot trainings. This joint test and training event saved the Navy more than $280,000. ❖

The Naval PHST Center assisted Lockheed Martin in April for their design of the Joint Strike Fighter's gun pod container, which previously failed container qualification testing. PHST personnel helped redesign, prototype and test the new container in eight months, enabling the JSF program and Lockheed Martin to meet the U.S. Marine Corps' timeline required to support initial operating capability. ❖

The department invited Rabbi Mayer Moskowitz, a holocaust survivor, to share his story for Holocaust Remembrance Day in April. Moskowitz spoke about his experiences and how he chose to live his life with an inner strength, spirit and joie de vivre instead of despair and bitterness. The event was well attended by personnel from across the installation. ❖

PHST employees were recognized with a first-place award by the National Institute of Packaging, Handling, and Logistics Engineers in May for a material handling device design. The division developed reusable packaging to protect the V-22 gun system during rigorous global transport. The group fielded a solution that was designed, produced and delivered in under six months by utilizing four Joint Modular Intermodal Containers and custom foam dunnage. ❖

The Naval PHST Center was tasked by the Office of Naval Research to develop a concept for rearming vertical launching system all-up rounds at sea with wave heights between 4 feet 1 inch and 8 feet 2 inches. The division came up with a concept model and a concept of operation to accomplish this mission in a safe and efficient way in August. The system, called the Strike Up/Down System will allow two VLS AURs at a time and accomplish all the procedures usually performed pier side to take place aboard the ship. ❖

The department hosted a Women's Equality Day celebration in August to recognize the contributions made by the department's women.

SYSTEMS INTEGRATION DEPARTMENT

The Women and Volunteers in Engineering/Science Team were nominated in September as the STEM Team of the Quarter in The Naval Edge publication for their support to STEM education and outreach, particularly with the "Introduce A Girl To Engineering" open house at Picatinny Arsenal, New Jersey. The event reaches approximately 30 schools in 23 cities across nine counties.

The department's Naval Air Systems Command Medium Caliber Guns In-service Engineering Team performed training for an F/A-18 Super Hornet 20mm M61 gun system organization and intermediate level maintenance personnel at Naval Air Station Oceana, Virginia, in August. The fleet requested the training to improve reliability and operational readiness, increase subject matter expertise, and reduce reliance on NAVAIR technical assistance. ❖

The Guns Division's Mark-110 ISEA provided onsite technical support for a live-fire factory acceptance test at Naval Surface Warfare Center Dahlgren, Virginia, in August. This gun is the first Mark-110 to undergo a full scale refurbishment by the government at the U.S. Coast Guard's Curtis Bay, Maryland, facility. The FAT proves the validity of repairs and the lessons learned are used to generate the technical repair standard for all future Mark-110 Gun overhauls. ❖

The Conventional Ammunition Division's small caliber design agent and acquisition engineering agent participated in first article testing of the Mark-263 Cal .50 armor-piercing cartridge in August.

Program Executive Office Integrated Warfare Systems 3C recognized several department employees in September for facilitating multiple contract awards and fielding of 338 Mark-38 MOD 2 and MOD 3 gun mounts; completing the first ever Mark-110 gun weapon system overhaul; supporting the Mark-45 gun mount waterfront support; and leading the five-inch range extended guided projectile demonstration.

The Small Caliber Technical Team ensured test procedures were properly executed, and penetration and ballistic match testing were conducted. ❖

Logistics and In-Service Engineering Division supported the D326 Propelling Charge first article test at McAlester Army Ammunition Plant, Oklahoma, in August. The testing was successful with no anomalies reported and the plant received clearance to continue production. ❖

The Systems Integration Department held their inaugural Lean-In circle in October. This circle is a place for sharing ideas, gaining skills, seeking advice, and showing solidarity.

The Guns Division's Mark-45 ISEA provided support and technical direction for a SPMR on the HMDA Absalon (L16), a Denmark foreign military sales customer in September. The Mark-45 SPMR was the first Royal Denmark Navy SPMR conducted outside the continental United States. ❖

Mark-45 ISEA representatives supported live-fire combat system sea qualification trials in October aboard USS Roosevelt (DDG 80). The team provided gun mount technical oversight and training for the ship's crew to perform during mission scenarios as part of a test plan to certify the crew and the ship's new combat system. ❖

Two PHST Division representatives traveled to NSWC Yokosuka, Japan, in September to train forward deployed sailors on the assembly, maintenance, and operation of the Mark-1 MOD 0 VLS handling davit. The team trained 13 sailors from three ships and certified them to operate the davit in support of their ship's VLS needs.

RDT&E DEPARTMENT

The Research, Development, Test, and Evaluation Department's Energetic Material Additive Manufacturing Team's principal investigator Dr. Samuel Emery (right) and the Explosive Ordnance Disposal Department's Concept, Realization, Imaging and Prototyping Team lead Ray McGuire (left) hold photos of a 3D printed Mark-152 casing presented to Chief of Naval Operations Adm. John Richardson for display in his office in April. The CNO requested a display of various additively manufactured parts from around the Department of the Navy. The EMAM team also worked with command staff to print a stand and create a plaque for the casing's display.

The department's Counter Improvised Explosive Device Team generated a flash report delivered to U.S. support personnel in February, in response to an urgent request for information to assess the threat potential for a list of suspected homemade explosives precursors. A raid was conducted based on multiple data sets, including the command's chemical intelligence flash report, and resulted in the capture of suspected terrorists. ❖

Department chemists performed a chemistry magic show for Bring Your Child to Work Day in May. Children were able to make observations just like a real scientist based on chemistry experiments involving solids, liquids and gases.

Members of the C-IED Team visited the EOD Training and Evaluation Unit 2 at Fort Story, Virginia, in April. The C-IED Team supports the Joint Improvised Threat Defeat Organization Integrated Signatures Program by providing subject matter expertise in technical domains such as chemistry, detonation science, and electrical engineering as it relates to global improvised threats. ❖

Researchers from the Chemical, Biological, Radiological and Experimentation Branch collaborated with American Standards of Test Materials International to write a publicly released message in July marketing a new ASTM standard, developed by the branch and approved by ASTM anti-microbial committee. The new ASTM standard practice evaluates the efficacy of vaporous decontaminants on materials contaminated with bacillus spores and contained within 0.2 micrometer filter-capped tubes. ❖

Department personnel, in conjunction with Johns Hopkins University's Energetics Research Group, organized the International Detonation Symposium in July. The IDS brings together scientists and engineers from around the world to discuss basic and applied research in the multidisciplinary field of detonation science. More than 20 command employees attended the symposium to present data, chair a technical session, or attend as junior employees for exposure to new disciplines, future collaborators and sponsors. ❖

Department employees and their families took a break from their work to enjoy their annual picnic in May.

The Functional Ground Test Team completed its 13th year of full rate production for Tomahawk Missile production acceptance testing with no missile performance issues or anomalies observed. ❖

The department conducted a multi-organizational kick-off meeting for a new project in September that investigates several aspects of reactive material fragmentation. The project is led by researchers in the department's Dynamics and Diagnostics Branch, in collaboration with the Naval Postgraduate School and New Mexico Institute of Mining and Technology. The work seeks to characterize in-situ reactive material break up and fragmentation utilizing high speed optical techniques such as 2D, 3D Particle Image Velocimetry, and Schlieren imaging. ❖

The Material Properties Branch completed dissection of an aged Evolved SeaSparrow Missile rocket motor in June. It was the first motor cut indoors via the diamond wire saw dissection method since a fire during dissection operations in 2013. This motor is also the first ever 50-year artificially aged ESSM dissected.

ENERGETICS MANUFACTURING DEPARTMENT

More than 30 civilian engineers, operators, technicians and administrative support from the Energetics Manufacturing Department took a field trip to see the guided-missile destroyer USS Ramage (DDG 61), and the fast-attack submarine USS Boise (SSN 764), in May at Naval Station Norfolk, Virginia. The department held a second tour in October where they visited the aircraft carrier USS George H.W. Bush (CVN 77), Carrier Airborne Early Warning Squadron (VAW) 120, and Helicopter Sea Combat Squadron (HSC) 22.

In an effort to reduce utility costs and reduce safety risk, the Pelletized Nitrocellulose Manufacturing Building finished decontamination for demolition in September, eliminating known safety hazards to allow repurposing of the area for future use.

The Agile Chemical Facility achieved two major milestones in 2018: the Energetics and Explosives Division completed full equipment installation and testing at Military Construction P-162, and began the ACF premix facility. MILCON contract P-163 was also awarded, which will complete the ACF facility and usher in a new era of nitration capability and safety by 2023.

The department processed more than 4,600 orders through the Cartridge Actuated Device/Propellant Actuated Device Virtual Fleet Support, resulting in delivery of 29,109 CADs and 1,572 PADs to the fleet. ❖

As part of the command's Material Potentially Presenting an Explosive Hazard reduction tasking, the department's Industrial Support Division decontaminated and removed approximately 386,000 pounds of metal and sent it out for recycling. ❖

The Explosives and Energetics Division became a qualified supplier of CXM products, critical materials used by the U.S. Air Force to load 2,000 pound bombs. Naval Surface Warfare Center Indian Head Explosive Ordnance Disposal Technology Division became qualified as a second source of this critical chemical and began delivering up to 1 million pounds of CXM products to the Air Force this year. ❖

The Explosives and Energetics Division developed and scaled-up PBXIH-21 for underwater applications, which became the first formulation containing ammonium perchlorate. ❖

NSWC IHEODTD was tasked by the Naval Sea Systems Command's Program Executive Office, Integrated Warfare Systems to manufacture 80 Mark-166 gun primers in support of developmental testing. The command delivered the primers in six months due to an urgent timeline for test execution. As a result, PEO IWS diverted follow-on work from industry to NSWC IHEODTD for more Mark-166 gun primers. ❖

NSWC IHEODTD was tasked by the Army to identify and qualify potential second sources of AA-2 sheet stock to make Mark-90 propellant grains. Extrusion of Mark-90 propellant grain was completed in June and all motors were static fired. The shots all passed and traces were acceptable. The Mark-90 propellant grain is a component of the Hydra 70 2.75-inch unguided air-to-ground rocket system fired from fixed wing aircraft and armed helicopters by the U.S. Army, U.S. Marine Corps, U.S. Navy, and U.S. Air Force. ❖

The department's operations team defeated the office team 9-7 during their annual softball game in October to retain bragging rights for a third straight year.

CORPORATE OPERATIONS DEPARTMENT

The Infrastructure Division's Rapid Response Team renovated unused space to create the command's Velocity Lab. The team designed all the systems including the fire alarm; heating, ventilation, and air conditioning; electrical, and made changes on the fly with the customer. The division continued to support the rest of the command while renovating the Velocity Lab space.

The department's Personnel Security Team reviewed and processed more than 300 new hire packages and reviewed 400 investigation requests for command personnel security clearances. ❖

The Equal Employment Opportunity, Diversity and Inclusion Office trained with Naval Surface Warfare Center Port Hueneme Division, California's EEO, D&I office for a two-month detail in February that included assisting their EEO office as a complaints management specialist. The EEO, D&I office received 21 reasonable accommodation requests filed in fiscal year 2018 by command employees, 19 of which were implemented. ❖

The Information Management Customer Service Branch coordinated and managed the Navy/Marine Corps Intranet technical refresh of 880 Non-Classified Internet Protocol Router Network and Secret Internet Protocol Router Network workstations at Indian Head, Maryland, and 150 workstations at Picatinny, New Jersey, in April. ❖

The Human Resources Division kicked off the football season during their annual Tailgate Day luncheon in September.

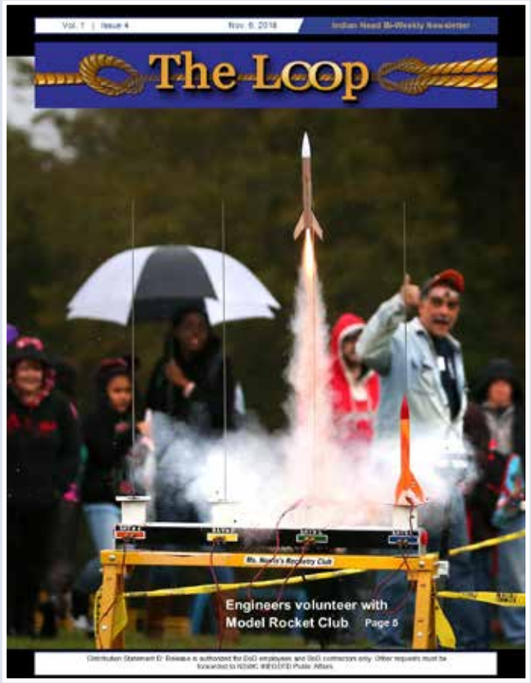
The Infrastructure Division hired summer interns using the Pathways and Workforce Recruitment Programs in May. The interns surveyed buildings and updated the building's system inventories including HVAC, fire protection, lightning protection and Americans with Disabilities Act compliance. The division had three Pathways summer interns and two WRP interns. ❖

The Corporate Business Office designed the command's Strategic and Command Metrics Dashboard and met with leadership to discuss its implementation and criticality in May. The dashboard provides an easy depiction of the status of key elements and initiatives used in managing the command's business. ❖

The department's Physical Security Team assisted with the establishment of four new open storage spaces within the command; the upgrade of 42 arms, ammunition and explosives magazines in support of Naval Weapons Station Yorktown, Virginia; and assisted the command explosive safety officer and command AA and E accountability officer with several safety/security incidents. ❖

Demaris Kaminski, Energetics Manufacturing Department, speaks to attendees at the 2018 Hispanic/Latin American Meet and Greet in March. The event provided perspectives of Hispanics who have successfully risen through the ranks as part of the command.

CORPORATE OPERATIONS DEPARTMENT



The Public and Congressional Affairs Division redesigned the weekly electronic version of "In the Loop" for a more magazine/news centric version. The division supported multiple command events including the Annual Honorary Awards, All Hands, Expeditionary Exploitation Unit One standup, high-level command visits and tours along with community relations events including Sea-Air-Space Exposition, Modern Day Marine Exposition, and the Charles County Fair. They also processed more than 240 public release documents and 350 visual information requests.

The Records Management Team's technical library clean-up effort resulted in sending 18 square feet of documents classified as Secret to the Federal Records Center. ❖

The Property Management Division completed 12 urgent Explosive Ordnance Disposal Department purchase requests for testing within one hour of the

An engineering candidate discusses his background to Systems Engineering Deputy Department Head Chris Fawls during the Advanced Science and Engineering Interviews hosted by the Human Resource Division in March.

funds expiring saving the command more than $1 million. The division also supported the Republic of Korea's KDX-III class Destroyer urgent program requirement for internal hard drives and data cartridges in support of installation and backup events. ❖

The department's Information Security Team conducted spot-checks of more than 300 security containers holding classified material to close inspector general write ups, provided security refresher and active shooter training to more than 2,000 command employees, and administered controlled unclassified information training on short notice per NSWC headquarters tasking. ❖

The Purchase Requisition Branch processed 24,670 material and service lines in fiscal year 2018 totaling approximately $131 million. ❖

The department's Physical Security Team conducted more than 100 initial AA and E suitability screenings

The Property Management Division took a moment to be thankful during their annual Thanksgiving lunch in November.

for new hires and annual employee re-screening for department heads. ❖

The Navy Enterprise Business Office executed emergency procedures to pay the NSWC Panama City workforce while the base was closed due to Hurricane Michael. ❖

The department's Industrial Security Team reviewed and signed 50 classified contracts and approved more than 500 Common Access Cards for contractors working on classified contracts. ❖

The Virtual Store Shop expanded by 34 percent in FY18. VSS processed approximately 580 requests for more than 4,670 line items.

CONTRACTS DEPARTMENT

The Contracts Department participated in Bring Your Child to Work Day in May by making care packages for deployed troops. The department's table was themed after the acquisition process and gave the children a chance to "purchase" goods for deployed service members. All items were donated by department staff.

Contracts held its annual Summer Kickoff Celebration in June featuring inter-department challenges such as kickball; corn hole; and win, lose or draw.

Following Sharon Bowie's (right) retirement, Melissa Johnson (left) was selected as the Contracts Department's new agency program coordinator in June. The APC has the overall responsibility for the management, administration and day-to-day operations of the local Government Purchase Card Program.

Every year the Contracts Department shares in "spooktacular" fun during Halloween with an office costume contest, scary rooms, decorating-door contest and spooky desserts!

Lynsi Weisman received a Letter of Appreciation in September from the Executive Director of the Surface Warfare Directorate Karen Davis for her exemplary work in awarding the SEA 21 professional support services bridge contract within 60 days. "As a member of the [Naval Surface Warfare Center Indian Head Explosive Ordnance Disposal Technology Division] 023 Team, you have shown exceptional enthusiasm and technical excellence," wrote Davis. "Your hard work and dedication were essential to SEA 21's continued success in accomplishing our mission to which this contract is critical."

CONTRACTS DEPARTMENT

The Contracts Department celebrated "Eat Week" during the last week of the fiscal year as it obligated the last bit of expiring funds: Team Spirit day with breakfast provided by the managers on Monday, Patriotic Potluck Wednesday, and Pajama Party Friday with pizza provided by the department leadership.

Former interns Lauren Morgan (left) and Ashleigh Bowie (center) graduated in 2018 joined the Indian Head family as members of the Contracts Department in November. Intern Emily Usle (right) is set to join them upon her graduation. As part of the intern program, the individual is required to become Level 2 Contracting certified in two years, while also participating in internal and external rotations.

Department personnel participated in various annual training opportunities provided by the command. Classes provided participants an opportunity to learn strategies in leadership fundamentals, including setting key goals and objectives to lead a team to success. Different leadership styles and theories were presented, along with different communication styles on how to be successful team leaders. The Dale Carnegie Seminar helped employees master their human relations skills, so they can thrive in any setting.

The Contracts Department closed out the year with 2,235 executed actions for more than $467 million in total obligations. In comparison to the entire Naval Sea Systems Command Enterprise, NSWC IHEODTD was the eighth largest in FY18 obligations and actions. ❖

COMPTROLLER DEPARTMENT

Comptroller Department's employees collaborated to develop a STEM project for Bring Your Child to Work Day. The project provided an age appropriate demonstration of Comptroller's overall involvement in the project operations at Naval Surface Warfare Center Indian Head Explosive Ordnance Disposal Technology Division. The children were given a budget to purchase materials necessary to build a catapult of their choice. Upon completion of their projects, the children put their skills to the test and engaged in a friendly competition demonstrating their catapult's launching capability.

The NSWC accounting officers executed a plan of actions and milestones for resolving aged financial transactions. AOs led the Unmatched Disbursements Team to clear transactions more than 120 days old by June 30. The AO and the accounting lead provided support to other warfare centers needing additional assistance through telecom or face-to-face working sessions, clearing 686 of the 1,081 UMDs by the deadline. A plan for a way forward was established for NSWC IHEODTD to continue leading the team through the deadline to ensure standard operating procedures are accessible by all warfare centers. The accounting lead was a subject matter expert on the Cash Reconciliation Team and ensured the remaining 488 aged transactions were cleared. ❖

There were plenty of tricks and treats to be had at Comptroller's Department's annual Halloween party!

The Financial Improvement and Audit Readiness Office saw an increase in the number of data calls and audit requests. In response to the current audit climate, preparations were made to implement more internal testing to ensure compliance by the FIAR team. The team coordinated with the Accounting Division for standard operating procedure reviews and provided feedback to have all processes reviewed by the end of 2018. The team also partnered with the Property Management Office in June to complete general equipment sample testing with Booz Allen Hamilton. This partnership provided general equipment audit training in July. ❖

External auditors arrived at NSWC IHEODTD for the first time ever in July. Ernst and Young auditors conducted an existence and completeness audit of general equipment assets with an acquisition value of more than $250,000. The FIAR team coordinated the E&Y audit team's review and inspection of 460 general equipment assets, while also preparing the daily communication for the commanding officer and headquarters. Following the audit, they completed follow-up actions required by E&Y to ensure audit compliance. ❖

Comptroller Department's Stephen Allahiari treats himself to a sundae during an October ice cream social sponsored by the department's social committee.

COMPTROLLER DEPARTMENT

The department gets that holly jolly feeling during their annual holiday gift wrapping party.

Comptroller implemented guidance in August to assist departments in tracking lost time due to unplanned circumstances causing an interruption to work. The implementation of NSWC IHEODTD Memorandum for Distribution 7000 PM-18-001 allows both the department and the command to report and analyze the financial impacts these interruptions have on financial statements and overall mission success. ❖

NSWC IHEODTD's stabilized rates are higher than most of the warfare centers: a premium in the overhead component of the rates borne from the command's infrastructure challenges. In support of the Strategic Plan's goal 2, Comptroller challenged itself to find creative ways in the command's rate strategy to appeal to new and existing customers. The result was the addition of a manufacturing rate within the fiscal year 2019 stabilized rate structure, which can increase the command's ability to obtain and retain manufacturing and energetics business opportunities. ❖

The Corporate Budget Office initiated a joint effort with the department's lead project budget financial managers to standardize the BFM role. The goal is to develop and implement a BFM program where financial staff across the command utilize the same operational and transactional processes and procedures, and have access to the same knowledge base to create and report the same metrics. ❖

The implementation of the Student Internship Program allowed students enrolled in accounting and finance programs to gain experience relevant to their course of study. The students engaged and rotated through the Accounting, Budget and Employee Services offices to gain an understanding of the Navy Working Capital Fund and recognize the career paths available at NSWC IHEODTD. The recruitment and employment of the financial management student trainees allows Comptroller to maintain a talented and cohesive workforce while developing the next generation of leaders.

Comptroller tasked its leadership team to build a career development program for employees in response to feedback from the 2017 Defense Equal Opportunity Management Institute's Organizational Climate Survey and the Strategic Plan's People Initiatives. This program designs the building blocks for employees to define their career path and ensures they receive the same opportunity to learn all the complex areas of the department.

Comptroller's leadership team also took on team building based on the survey's results. Employees expressed the desire to interact more with their coworkers and learn how they support the department's mission. Team leads designed team building exercises involving critical thinking, problem solving and communication. The team mixed up the staff through a series of ice breakers where individuals learned commonalities between themselves and their co-workers. The positive feedback led to the creation of the department's Strategic Planning Team made of at least two individuals from each division, who develop projects and team building events to improve the Comptroller environment.

STEM AND COMMUNITY PARTNERSHIPS

Sixteen mechanical engineering U.S. Naval Academy midshipmen designed a grenade to test at the Blossom Point Research Facility in March for the Weapons Analysis and Design course. The course focused on explosives, warhead design, weapon system effectiveness, concepts and issues of employment of weapons and weapons testing. Ken Conley, Naval Surface Warfare Center Indian Head Explosive Ordnance Disposal Technology Division senior intelligence officer and course professor, coordinated the field activity requiring the midshipmen to design a hand grenade balancing the necessary utility and lethality.

NSWC IHEODTD Commanding Officer Capt. Scott Kraft presented the command's Special Awards for Science at the conclusion of Charles County Public Schools History, Industry, Technology and Science Exposition at St. Charles High School in Waldorf, Maryland. Command volunteers serve as judges for local Charles County Public School's preliminary science competitions every year in February and March.

The 2018 Science and Engineering Apprenticeship Program concluded in August. During their apprenticeship, students worked alongside command engineers and scientists, receiving mentorship and guidance while also gaining practical experience in fields such as propellants, robotics, explosive detection, and insensitive munitions through training projects.

Command personnel engaged with the community at the 95th annual Charles County Fair in September, stimulating interest in science and technology with hands-on demonstrations. Children operated a SeaPerch underwater remotely operated vehicle designed to teach students engineering and science concepts.

Command personnel assisted in the J.P. Ryon Elementary Model Rocket Club's rocket launch in October, where the fifth grade club launched their handmade model rockets. Bryan Kilikewich (right), Systems Engineering Department, helps a student assemble her model rocket.

David Rohde, Ken Conley, Jean Nelson and Catherine Eaton participated in a May STEM outreach event at Henry E. Lackey High School in Indian Head, Maryland. The event was the final design review for the Engineering Design and Development Program.

Command scientists participated in an innovation and industry day at the Southern Maryland Higher Education Center in February. The employees presented their work "Method and Device for Detection of an Explosive Compounds" (U.S. patent 8,231,746) and "Development of Electrodes from Metal-Enhanced Carbon Nanotubes for Application in Lithium Ion Batteries" (U.S. patent 9,819,016 B1). ❖

Dr. Kerry Clark, the command's Chief Technology Officer, served as a panel member in March for the town of Indian Head's "Girl Empowerment Summit," dedicated to empowering young women and encouraging them toward science and technology careers. ❖

The command signed Educational Partnership Agreements with Morgan State University and St. Mary's College of Maryland in March. The Customer Advocate Office also facilitated the signing of a Partnership Intermediary Agreement with the College of Southern Maryland. ❖

John Hungerford and Renee Brown graduated from the 2018 Leadership Southern Maryland class in May. The course is an executive program that combines hands-on study and in-depth discussion of current issues facing Southern Maryland. ❖

INNOVATION AND PATENTS

In March, Bonnie Green, Executive Director, The Patuxent Partnership; Ashley Johnson, Technical Director, NSWC IHEODTD; Dale Sisson, then Deputy Technical Director, NSWC Dahlgren Division; and Leslie Taylor, Executive Director, Naval Air Warfare Center Aircraft Division presented at a collaboration and strengthening partnerships session hosted by The Patuxent Partnership at the Southern Maryland Higher Education Center in California, Maryland.

In collaboration with the Naval Air Systems Command, Naval Air Warfare Center Aircraft Division, and Naval Air Warfare Center Weapons Division, Naval Surface Warfare Center Indian Head Explosive Ordnance Disposal Technology Division hosted a March industry day and innovation marketplace at the Southern Maryland Higher Education Center in California, Maryland. Researchers, inventors and scientists provided technology pitches and presentations showcasing their innovative solutions to warfighter challenges, as well as commercial applications for their technologies. ❖

NSWC IHEODTD Technical Director Ashley Johnson, Dr. Samuel Emery and Kevin Genson briefed senior Naval Sea Systems Command and NSWC leadership in January on the command's efforts in additive manufacturing of energetics and munitions. The brief covered the command's successes in demonstrating an AM Mark-152 warhead through the Warfighting Lab Incentive Fund and fiscal year 16-17 Section 219 investment for an AM kinetic energy warhead concept. ❖

NSWC IHEODTD engineers and scientists George McDaniel, Kevin Genson, Austin Riggins, Gabriel Bjerke and Dwayne McKinney developed a method for filling warheads utilizing resonant acoustic mixing in September. These new AM warheads provide an increase of weight effective fragments improving lethality. ❖

Research, Development, Test and Evaluation Department engineers and scientists George McDaniel, Stephen Stiles, Austin Riggins and Darlene Galloza Lorenzo developed and scaled up four new underwater explosives containing ammonium dinitramide in September. This Naval Innovative Science and Engineering 219 program, funded as part of the Smart Mine Initiative, allowed the command to formulate UNDEX with potential performance increases and allowed for junior formulators to develop a knowledge base and intuition in the field. ❖

The Customer Advocate Office finalized 15 Cooperative Research and Development Agreements resulting in approximately $1.5 million of funding for research and established three new patent license agreements and 12 Work for Private Parties Agreements. ❖

Patents in 2018

Patent Number 9,909,834. **Collapsible/Inflatable Explosive Disruptor.**
Angel Diaz, Lee Foltz, Daniel McCarthy, Chris Wilhelm
An explosive disruptor which includes a jacket having joined inflatable members adapted to be filled with a gas.

Patent Number 9,921,041. **Primerless Digital Time-Delay Initiator System.**
Thinh Eloang, Khoa Nguyen, Cuong Nguyen, Troy Caruso
An initiator system which includes a firing pin and a piezoelectric-based energy harvester that generates and stores electric energy when impacted by the firing pin.

Patent Number 9,944,570. **Desensitizing Agent for Homemade and Conventional Explosives.**
Kenneth Basom, Bryan Milani
A desensitizing agent and method that desensitizes triacetone triperoxide, which includes a common polymer dissolved in a volatile solvent to allow direct, rapid on-site application.

Patent Number 9,964,385. **Shock Mitigation Body.**
Kevin Genson
A shock mitigation casing to include a monolithic body made from a solid material.

Patent Number 10,048,703. **Force Feedback Pressure Cuff Systems and Methods.**
Adam Shaker, Andrew Czop, Aaron O'Toole, Carlos Ramos Garcia
A force feedback cuff system, method, and apparatus for receiving a force feedback signal from an external, remotely controlled device.

Patent Number 10,066,916. **Low Impact Threat Rupture Device for Explosive Ordnance Disruptor.**
Ian Vabnick, Arthur Ellis, Joe Rothenberger, Chad Smith, Mike Sharp, Lee Foltz, Eric Morefield, Barry Black
An EOD disruptor system for penetrating steel-encased explosive devices utilizing a barrel and blank cartridge loaded in the EOD disruptor.

Patent Number 7,491,024. **Interlocking Pallets, and Shipping and Storage Systems Employing the Same.**
Mark Anthony Heinrichs, Donald Edmund Fabula, Eric Robert Boyd
Shipping and storage containers, racks, and pallets to include interlocking mechanisms.

Patent License Agreements in 2018

A patent license agreement typically grants a licensee exclusive rights to manufacture, sell and use a patented invention, subjected to certain terms. A patent license agreement will also define the amount of royalties the licensee owes the licensor. These were the command patents issued as license agreements in 2018.

NLICENSE-NSWCIHEODTD-17-001:
*Patent Number 7,491,024: "Interlocking Pallets, and Shipping and Storage Systems Employing the Same;" Patent Number 7,651,305: "Retractable Fitting;" Patent Number 7,726,496: "Shipping and Storage System;" Patent Number 7,753,222: "Container, and Related Methods;" United States Trademark Number 4,085,484: "Joint Modular Intermodal Container Naval PHST CTR NAVSEA * OPLOG;" United States Trademark Number 4,100,465: "JMIC."*

NLICENSE-NSWCIHEODTD-17-002:
Patent Application Number 13/999,385: "Desensitizing Agent and Method for Improvised and Conventional Explosives"

NLICENSE-NSWCIHEODTD-17-003
Patent Number 9,944,570: "Desensitizing Agent for Homemade and Conventional Explosives"

To learn more about the command's patents, please visit: http://patft.uspto.gov/netahtml/PTO/search-bool.html

AWARDS

Naval Surface Warfare Center Indian Head Explosive Ordnance Disposal Technology Division Commanding Officer Capt. Scott Kraft presents Research, Development, Test and Evaluation Department's Harold Sandusky the Department of the Navy Superior Civilian Service Award in January. Sandusky was honored in recognition of his outstanding work as a research mechanical engineer.

Systems Engineering Department's Frank Tse and Gary Biggs received the 2017 Technical Cooperation Program Team Achievement in January. This award recognizes outstanding collaboration in assessing the effect of vibrations on air-carried missiles while creating a suite of tools and methodologies. The research resulted in improving speed, accuracy and expertise required for current and future weapons managers to understand how to mitigate risks associated with flight vibration to missiles. ❖

The Naval Air System Command program manager for Precision Strike Weapons recognized the Cartridge Actuated Device/Propellant Actuated Device Division's Inventory Forecasting Team during in January. The team's upgraded inventory forecasting tool uses in-service installed device and ordnance assessment/service life extension data to automatically associate a risk with both manufacturing and delivery of time change-out assets and technical performance. ❖

Systems Engineering Department's Frank Tse and Gary Prybyla received the France-Beaupré Award from the Energetic Materials and Propulsion Technology Technical Panel in March for their work on the internal behavior of solid rocket motors. ❖

Steven Kim, Systems Engineering Department, was awarded the Secretary of Defense Medal for Meritorious Civilian Service in June. Kim is an expert in biological agent countermeasures and was recognized for his accomplishments from October 2006 through August 2016.

The Naval Sea Systems Command Warfare Center Transportation of People Team, which includes Comptroller Department's Cindy Gilroy and Austin Garruba, received the Defense Travel Management Office Icon Award in May. The award recognizes a command or agency whose strategies and tactics enhance travel program capabilities for their subordinate sites. ❖

The 2017 Dr. Delores M. Etter Top Scientists and Engineers Award was presented to Dr. Rebecca Wilson, RDT&E Department, in May. Wilson synthesized alpha-alane (aluminum hydride), an important ingredient for propulsion that demonstrated excellent thermal stability characteristics. Alane is projected to aid propulsion with significant potential range increases and is important to the military for its hydrogen storage applications. ❖

The Joint Insensitive Munitions Technology Program selected the command's "Low Cost IM Rocket Motor for Air Defense Applications" project as the fiscal year 2018 Team of the Year in May. NSWC IHEODTD provided rocket motor design support and expertise in the manufacturing and delivery of the AA-6 propellant grains. The group included representatives from the RDT&E, Energetics Manufacturing and Systems Engineering Departments. ❖

Carl Gotzmer received the Office of the Director of National Intelligence's Science and Technology Intelligence Committee award in September, a high recognition in the intelligence community.

The Packaging, Handling, Storage and Transportation Division received an award from the National Institute of Packaging, Handling, and Logistics Engineers in May for the V22 Osprey Gun System package design. ❖

AWARDS

Ruth Adams, Contracts Department, received the DoN Meritorious Civilian Service Award in December for her outstanding service and personal commitment to supporting the warfighter. Adams was instrumental in the department receiving a "Highly Satisfactory" rating on the NAVSEA headquarters Procurement Performance Management Assessment Program review in 2014 and 2017.

The NAVAIR Precision Strike Program Manager Capt. John Dougherty presented an award to the CAD/PAD team for their dedication and performance in support of PMA-201. The team identified solutions to several aircraft operational problems including the MG67 Word Motor's catastrophic performance encountered during ordnance assessment, which impacted a third of the international AV-8B Harrier II fleet. The team determined and executed a mitigation path that returned all Harriers to operational status within 21 days. ❖

Carol Kasterko, System Engineering Department, received the DoN Meritorious Civilian Service Award for her efforts to the CAD/PAD organization. Her vision to promote teamwork was instrumental in expanding the CAD/PAD production workload throughout the years and her expertise and ability to mentor and cross-train personnel will continue to provide dividends to the CAD/PAD community for years to come.

John Backes, Systems Engineering Department, received the DoN Meritorious Civilian Service Award for his work and leadership as an ordnance assessment engineer. Backes was selected by NAVAIR to perform the duties of quality evaluation manager for all air-launched missiles, while also serving as the Air Weapon team lead and the subject matter expert for the Direct and Time Sensitive Strike Weapons office. ❖

Warfare Center Awards

NSWC Commander, Rear Adm. Thomas Anderson joined NSWC IHEODTD Commanding Officer Capt. Scott Kraft and Technical Director Ashley Johnson to present Warfare Center Awards to command employees in November.

WFC Collaboration Award Winners:

- *Phil Salinas: Warfare Center U.S. Marine Corps Collaboration Team*
- *David Carpenter, Larry Kijek and Tracy Welsh: Explosives Safety Team*
- *Brian Amato, Dr. James Hopkins, Tamara Kick, Richard Sams, and Conan Schultz: Urban 5th Generation Marine Advanced Naval Technology Exercise Planning Team*
- *Magdy Bichay, Gustavo Bora, Jorge Castellanos, Dr. Samuel Emery, Meagan Gay, Kevin Genson, Sean Maharrey, George McDaniel, Daniel Minehan, Derek Neubert, Austin Riggins and David Zamor: Energetics Additive Manufacturing Team (pictured above)*

WFC Innovation Award Winners

- Dr. Victor Bellitto, Dr. Vasant Joshi, Dr. Gerry Laib, Christopher Milby, John O'Connor, Dr. Demitrious Stamatis, Dr. Chad Stoltz and Glenda Young: Indirect Fire Munition Team
- Dai Dinh, Dr. Daniel Jean, Muhammad Khan, Trong Luong and Matthew Winnick: Micro Electro-Mechanical Systems Blast Sensor Development Team
- Nelson Hall and Steven Han: Electromagnetic Railgun Modeling and Simulation Team
- Michael Skowronski: Gun Weapons System Diminishing Manufacturer Support and Material Shortages Management Team
- J. David De Leon: E22 Electromagnetic Gun High Velocity Learning Team

WFC Technical Support Services Award Winners

- Lacey Flagler, Archie "Wayne" Humfleet and Richard Pence

NSWC IHEODTD Honorary Awards

The command recognized individuals and teams who made significant mission contributions at the Honorary Awards in April. This year's guest of honor was Senior Chief Petty Officer Special Warfare Operator (SEAL) Edward C. Byers Jr., who was awarded the Medal of Honor for "conspicuous gallantry and intrepidity at the risk of his life above and beyond the call of duty as a Hostage Rescue Force Team Member in Afghanistan in support of Operation Enduring Freedom from Dec. 8-9, 2012."

Robert B. Dashiell Award for Excellence
Julie Greaves-Jacko, Contracts Department

Admiral Harold R. Stark Award for Innovation
Bryan Milani, Kenneth Basom, Robert Breaux and Wesley Posey; Explosive Ordnance Disposal Department

Dr. George W. Patterson Award for Outstanding Accomplishment
Angel Diaz, EOD Department

Joe L. Browning Award for Managerial Excellence
Melissa Milani, Systems Engineering Department

Captain H. E. Lackey Award for Community Service
Martin Chernoff, Corporate Operations Department

A.J. Perk Outstanding Operator/Technician of The Year
John Harley, Energetics Manufacturing Department

Roger M. Smith Team Award
CAD/PAD SJU-17 Under Seat Rocket Motors Team: Melina Andino, Kelly Armstrong, Michael Audley, Rae Azorandia, Tina Ball, Sterling Bannister, Robert Beagley III, Yonas Befekadu, Michele Bowling, Mary Boyd, Timothy Boyd, Thomas Briscoe, John Burchett, Cynthia Butler, David Carpenter, Keith Carter III, Troy Chase, David Clark, Paul Dunnington Jr., Christopher Fawls, Kathleen Garcia, David Gray Jr., Jose Gutierrez, Damian Hancock, Robert Hastings, Christopher Haynie, Edgardo Hernandez, Lekisha Hodges, Kathleen Howells, Carol Kasterko, Lawrence Kijek, Ezekiel Lancaster, Francis Lange, Hunter Lee, Lee Manis, Lois Marshall, Hayden Martin, Leroy Mason, Paul McCafferty, Marcia Mouer, Constance Murphy, Gerardo Pangilinan, Jeffrey Peters, Cordilla Plummer, Steven Possehl, William Reed, Milton Reese Jr., Joseph Rogerson, Nicholas Schombs, John Schubert, Earl Simms, Jurgen Smith, Daniel Sorensen, James Spriggs, Chad Stoltz, Nicholas Sullivan, Garvin Thomas, Iris Vazquez-Ayala, Clifton Washington, Dennis Williamson Jr. and Sandra Yandell.

Excellence in Project Management Award
Andrea Bloomer, Energetics Manufacturing Department

Lance Corporal T. J. Honeycutt Award for Forward Deployed Service
Archie "Wayne" Humfleet, Systems Integration Department

Command Award for Safety Excellence
Ronnie Martin, Corporate Operations Department

Internal Customer Service Award
Lori McFarland, Human Resources Division
Susan Tanner and Degas Legal, Corporate Operations Department

Equal Employment Opportunity and Diversity Award
Amber Knott,
Research, Development, Test and Evaluation Department

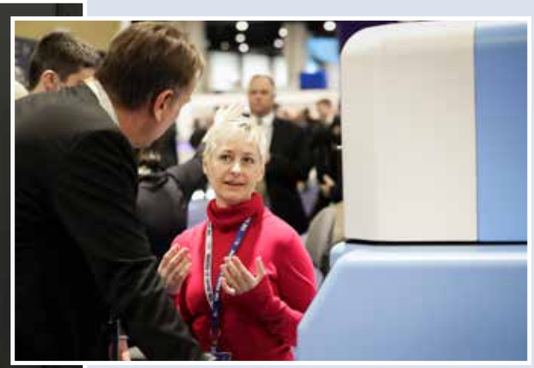
Dr. Horst Adolph Award for Outstanding Patent
Rebecca Wilson, Joseph Mannion and Jesse Moran;
RDT&E Department

Continuous Process Improvement Award
Steven Possehl, RDT&E Department
Bill Fini, Dan Bragunier, Jose Frontanes,
Adam Scates, Jeff Matteson and Martin Chernoff; Infrastructure Team

Excellence in Systems Engineering Award
Normary Camacho Cardoza, EOD Department

Excellence in Quality Execution Award:
Mark-154 Launcher Mine Clearing Electrical System Manufacturing Team: Lamar Anderson, Robert Bragunier, David Culhane, Matthew Daughhetee, Miguel Deleon, Larry Dulin, Deran Eaton, Joanne Fitzpatrick, John Grenier, John Hager, Marvin Heard, Jesse Hitch, Drew Howells, Adalberto Isaac, Paula Loucas, Mark McClure, Stephen Smith, James Streett and Gary Williams.

Medal of Honor recipient, Senior Chief Petty Officer Special Warfare Operator (SEAL) Edward C. Byers Jr., speaks at the NSWC IHEODTD Honorary Awards.



Naval Surface Warfare Center Indian Head Explosive Ordnance Disposal Technology Division Chief Innovation Officer Dan Pines (left) hosted an information session on the command's Velocity Lab. Energetics Manufacturing Department chemical engineer Amy Luebbering (above) provided resonant acoustic mixer demonstrations in the Naval Sea Systems Command booth during the Sea-Air-Space Exposition in April at the Gaylord National Harbor, Maryland.

Cmdr. Sarah Rice, a project officer for the Program Executive Office for Integrated Warfare Systems (center), speaks with Amanda Vehslage, EOD Department Head, and Shellie Clift, Deputy Head for the Strategic and Computing Systems Department at NSWC Dahlgren, Virginia, for a Women in Network-sponsored Lean In Circle in October. The meeting was held at the command's Velocity Lab and showcased the benefits of Lean In Circles and how they encourage mutual support and cooperation for all participants.

The command showcased its technologies and capabilities at the Modern Day Marine Exposition in Quantico, Virginia, in September. MDM is the world's largest military exposition focused on enhancing expeditionary force capabilities. The event is a systems-level show where industry can interface with the requirements and procurement experts in the U.S. Marine Corps.

The command teamed with NSWC Dahlgren Division, Virginia, in January to showcase a joint High Energy Insensitive Propellant/Joint Enhanced Naval Gunnery Assessment display at the Surface Navy Association Symposium in Crystal City, Virginia. ❖

Research, Development, Test and Evaluation Department's Dr. Jorge Castellanos traveled to the University of Puerto Rico Mayagüez in April for a recruitment seminar on behalf of the command. Visiting the school for recruitment purposes was coming full circle for Castellanos, who was hired at a similar event attended by NSWC IHEODTD at UPRM two years ago. ❖

The 45th term of the Professional Development Council hosted their out-brief to leadership in August. The 2018 PDC corporate project focused on growing a "greater sense of us" by analyzing the overlaps and gaps of the strategic plan's People Initiatives. Throughout the term, the group participated in teambuilding exercises and shared lessons learned with leadership. ❖

Systems Engineering Department, Systems Integration Department, and Energetic Manufacturing Department personnel met with employees from NSWC Corona Division, California's Navy Gage and Standards Department in October to collaborate on supporting Mark 9 cartridge case production efforts at the Quad Cities Cartridge Case Facility located at Rock Island Arsenal, Illinois. ❖

Federal News Network reporter Tom Temin interviewed NSWC IHEODTD Commanding Officer Capt. Scott Kraft for an October radio piece on Federal Drive with Tom Temin. *The interview was part of a larger profile the media outlet produced on the Navy.*

The idea of "a greater sense of us" is a command priority made apparent during the command's All Hands in June. This was the command's largest All Hands on record, with approximately 90 percent of command employees in attendance.

Naval Surface Warfare Center Indian Head Explosive Ordnance Disposal Technology Division's Commanding Officer Capt. Scott Kraft and Technical Director Ashley Johnson hosted the All Hands for the Indian Head and Stump Neck sites, as well as representation from other command locations, at North Point High School in Waldorf, Maryland. The site was selected since it could hold the approximate 1,600 personnel attending the event.

Through employee feedback to include the 2017 Defense Equal Opportunity Management Institute's Organizational Climate Survey, leadership learned the workforce wanted to know more about each department's role in supporting the warfighter. The All Hands was an opportunity to share this information while also reaffirming the importance of the People Supporting Plan to accomplishing the command mission.

Command leadership is committed to the importance of "listening, learning, saying and doing," and this event gave employees the opportunity to unite under one roof to understand mission priorities and learn where the command is heading in the future.

Naval Sea Systems Command Commander, Vice Adm. Thomas Moore is flanked by Naval Surface Warfare Center Indian Head Explosive Ordnance Disposal Technology Division Commanding Officer Capt. Scott Kraft and Technical Director Ashley Johnson in February. The visit was part of the admiral's nationwide tour of all NAVSEA warfare centers.

Brian Shaffer (right), an engineer in the Systems Engineering Department, discusses the destructive power of an anti-structural munition grenade with Maj. Gen. David Coffman, Director Expeditionary Warfare, as NSWC IHEODTD Commanding Officer Capt. Scott Kraft and Technical Director Ashley Johnson look on in April.

The EOD Department's International Programs Office hosted EOD officers from the Danish Army Engineer Regiment and Norwegian Defence Logistics Organization in May.

Assistant Secretary of the Navy for Research, Development and Acquisition James Geurts (right) and NSWC IHEODTD aerospace engineer Annmarie Shahan (left) discuss the benefits of densified propellant technology in June as Deputy Assistant Secretary of the Navy for Research, Development, Test and Evaluation William Bray (center) looks on.

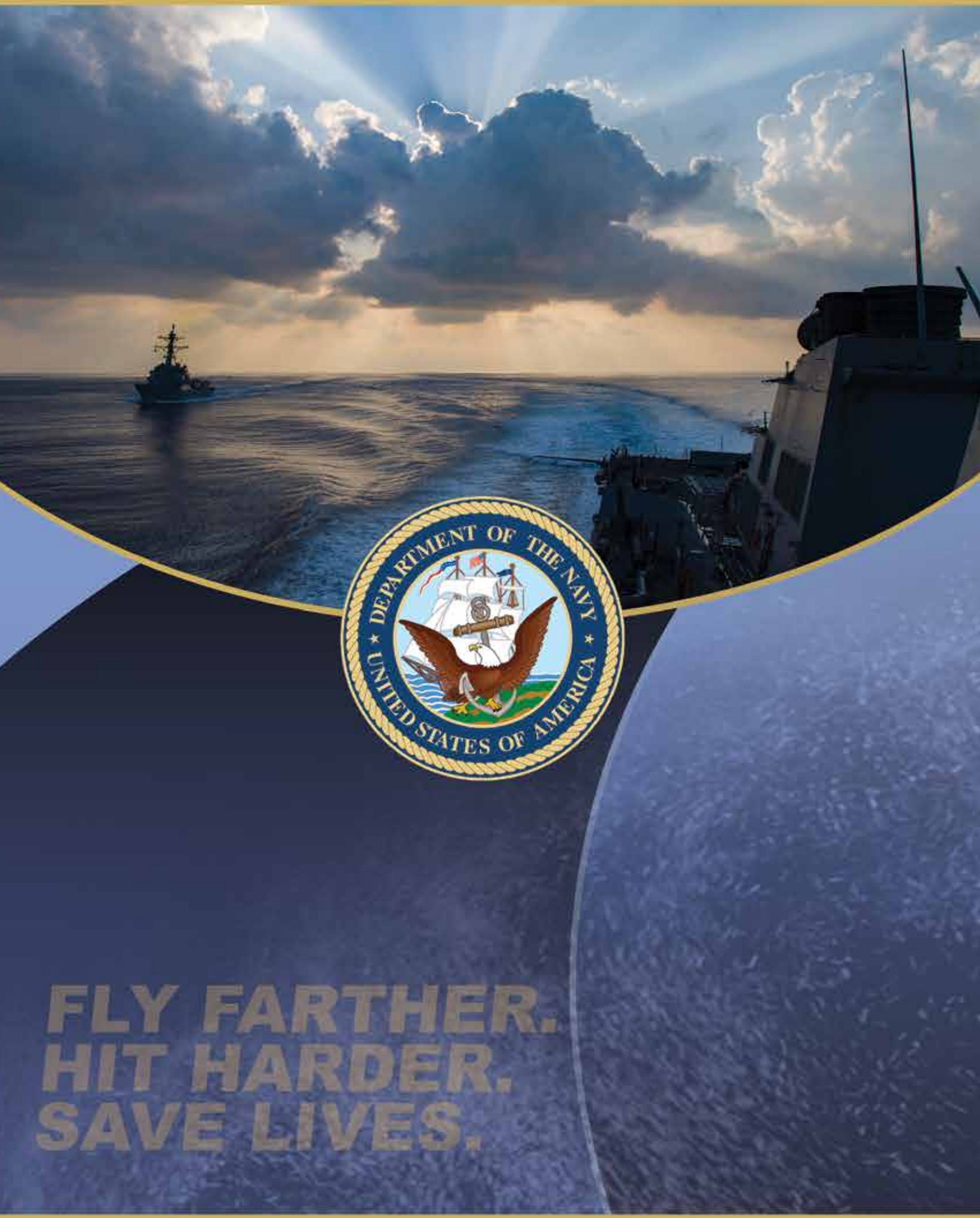
VISITS

NSWC IHEODTD EOD Department's Robotics Branch Head Michael Del Signore gives an overview of EOD robotics to NSWC Commander, Rear Adm. Tom Anderson during a command visit in May.

The Logistics Community of Practice group poses outside the detonation science facilities while on a tour in May. The meetings are held biannually at different warfare centers.

NSWC IHEODTD Technical Director Ashley Johnson, U.S. Sen. Ben Cardin of Maryland (left), College of Southern Maryland President Dr. Maureen Murphy (center right) and Military Alliance Council Chairman Brian Klaas (center) discussed the command's use of CSM's Velocity Center in July.

The Secretary of the Navy Richard V. Spencer, Sen. Bob Menendez of New Jersey and U.S. Army Brig. Gen. Alfred Abramson, Program Executive Officer Ammunition and the commanding general of Picatinny Arsenal, toured the Systems Integration Department during a visit to Picatinny Arsenal, New Jersey, in August. Spencer and Menendez also toured the Packaging, Handling, Storage and Transportation Center and turret facility where they were briefed on the department's ongoing efforts to support the warfighter.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