

Coastal COMPASS

THE FORCE BEHIND THE FLEET



2019 ANNUAL AWARDS

INCLUDING WARFARE CENTER
AWARDS & PATENTS



NSWC Panama City Division
Ensuring Warfighting Dominance in the Littoral Battlespace

Coastal COMPASS

THE FORCE BEHIND THE FLEET

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Commanding Officer



Edwin A. Stewart (SES)
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About the Publication

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NSWC PCD supports
Mine Countermeasure
Mission aboard Vessel
of Opportunity.

U.S. Navy photo by
Anthony Powers



Induction into the Hall of
Fame

U.S. Navy photo by
Eddie Green

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IN THIS ISSUE

04 View from the Bridge

05 Workforce Connection

05 | *Welcome Aboard*

05 | *Civilian Length of Service*

06 State of the Division

16 Technical Spotlight

16 | *New Tool Protects Ships, Sailors*

18 | *Autonomous Vehicles*

19 | *Supporting Mine Countermeasure*

20 Workforce Connection

20 | *NAVSEA Scientist of the Year*

20 | *People of Panama City*

21 Lifestyle

21 | *FIAR*

22 | *OPSEC*

21 | *DAWIA*

23 | *Safety*

Features



08

Annual Awards | 8

Warfare Center Awards | 12

Patent Awards | 14



Procurement branch overcomes hurricane challenges



View from the BRIDGE



Edwin A. Stewart (SES)
Technical Director

“ I want to start this edition’s View from the Bridge column by thanking each of you for staying focused, in spite of those challenges, on our sailors and marines and working as One Team in support of our nation’s warfighters. ”

– Ed Stewart (SES)
Technical Director, NSWC PCD

NSWC PCD Team,

I do not have to tell you that 2019 was a very challenging year, and as we round out this calendar year, I want to start this edition’s View from the Bridge column by thanking each of you for staying focused, in spite of those challenges, on our sailors and marines and working as One Team in support of our nation’s warfighters.

Looking ahead to 2020, the Warfare Center Division Technical Directors have doubled down on their commitment to the One Team and are leading several initiatives that I would like to share with you:

Initiative 1 - Common Approach to Developing Leaders:

With Initiative 1, the One Team Warfare Center will fast track an evaluation of external and internal (existing Division) leadership development programs, and recommend a common approach to developing future leaders. The common approach will ensure that Warfare Center core One Team values are instilled in our future leaders, and that we are able to prepare our best and brightest for the challenges of leading at the next level. The objective is to identify the common attributes of a quality leadership development program that will enable all Warfare Center Divisions to consistently grow and develop the next generation of leaders to ensure future mission success. The outcome of Initiative 1 will be use to strengthen our own recently launched Leadership Academy.

Initiative 2 - Make/Buy Analysis:

Across all Divisions, make/buy decisions tend to flow from the bottom up. We have experimented with several techniques to evaluate sourcing decisions to enable strategic, top down strategies for insourcing and outsourcing, but we have struggled to find the right methodology. In Initiative 2, we will evaluate a Dahlgren model and attempt to link it with our existing corporate tools and processes. If successful, we may have a tool to link Workload Forecasts, Technical Capability Health Assessments, and Strategic Make/Buy Decisions together to enable better strategic decisions that align with our new Strategic Campaign Plan.

Initiative 3 - IT Infrastructure Plan:

IT latency problems and the difficulty in being able to procure and utilize state-of-the-art engineering and software development tools are two of the biggest complaints we receive from the workforce and a significant factor in attrition. This is also impacting our ability to be agile and fast. In Initiative 3, the TDs declare war on this problem once and for all. More to follow.

Initiative 4 - Cross-Division Innovation Cell(s):

We will commit to a number of innovative, rapid prototyping initiatives that are linked to resolving a Fleet need and demonstrate the One Team working together to solve problems. The expectation is that 2020 will be a planning/design year, followed up with a demonstration in 2021.

Initiative 4a - Executive Directors Cup:

A subset of Initiative 4 is the Warfare Center Executive Director’s Cup, which will give the workforce an opportunity to be hands-on and rapidly prototype and demonstrate—in a competitive environment—a solution to Fleet problems. An alternative benefit will be the expanded, cross-division One Team network that will be generated among all the event’s participants. Details on the event will be forthcoming. This is another opportunity to put PCD’s best and brightest talents on display.

Initiative 5 - Continue and Expand TD Swaps:

We will continue the commitment of one-week TD swaps and expand to two a year, if possible. This will also expand to Deputies, Department Heads, and Division Heads, Branch Heads, senior staff, etc. The goal is to be able to share positive results of these swaps with the entire One-Team Warfare Center. We are encouraging broad participation.

I hope everyone has a happy holiday season and takes much deserved time off to recharge for the upcoming year as we continue on our strategic journey of ensuring warfighting dominance in the littoral battlespace.

Giddy up!

Welcome Aboard



U.S. Navy photo by Eddie Green

TDM	Todd Holland	TDM
CODE 00	David Kendrick	00L
CODE 01	Alyssa Luster Jeremy Vonknoblauch	0121 0111
CODE 02	Kristen Little	022
CODE 10	Donn Brown Tina Bryant Eric Carlson Frederick Costales Darlena Ibanez Mary Kim Kimberly Potter John Radke Lorri Tucker	1073 102 1052 1064 105 10E 1013 1043 1073
CODE A	Clinton Erwin Matthew Reynolds	A16 A13
CODE E	Carisa Baker Nicholas Jaramillo Christopher Langston Joshua Lowe Wendy Najacque Bryan Naranjo Churchill Okello Josephine Schamle Mark Sowders	E14 E26 E13 E12 E25 E24 E41 E41 E25
CODE X	Chase Bishman Angela Cook Henry Osborne	X12 X10 X21

CIVILIAN LENGTH of SERVICE



50 RONALD CAMBIER

40 JACK WOOTEN

30 BOBBY BURT JR
JALAL HYDER
MONA THORNBURGH

20 DONALD WITTKOPF
MICHAEL ABEE
STEVEN BALDOMERO
ROY ELLIS
TRAVIS FULLER

15 JAMES DICKERSON
DAWN HILTY
BRIAN YOUNG
KIMBERLY LAWLER

10 CYNTHIA RATLIFF
MATTHEW MULLIN
JERMAINE KENNEDY
TED HERNANDEZ JR
RAY FORRESTER JR
KATHERINE ARNALL
KENNY DALE
MARK SHERWOOD

05 ERIC WOODARD
JOSHUA RODDENBERRY
JONATHAN FARANDA
SETH EDEWAARD
CARISA BAKER
CURTIS BRUCE JR
JEREMY JOHNSON
THOMAS SARGENT

STATE of the Division



By Ed Stewart (SES)
Technical Director, NSWC PCD

This is the ninth year I have been humbled and honored with the privilege of delivering the NSWC Panama City State of the Division report. For those of you unfamiliar with this address, this is my annual report to the Division that reflects on the past year and takes a glimpse into tomorrow, culminating in an assessment of the health of our organization and our readiness to meet the challenges of the future.

We continue to evaluate our organizations' performance with the Balanced Scorecard construct, which is an industry standard that enables us to assess how well our Division is performing using evaluation factors that include: warfighter readiness, customer support and satisfaction, financial, people, and processes. Previously when we evaluated the organization's performance against the Balanced Score Card, it was through the lens of the previous Strategic Plan. Now, with the shift to our current Strategic Plan we will evaluate these areas through a new lens. With a new strategic plan, comes new benchmarks for assessing our overall health.

A well-functioning organization should be strong in all five factors, and the CO and I are proud to declare our Balanced Scorecard approach indicates that we are YELLOW GREEN overall—not a bad start for new Strategic Campaign Plan. Let's spend a few minutes discussing each of the elements beginning with Warfighter Readiness.

✓ WARFIGHTER READINESS

Warfighter Readiness is all about ensuring today's and tomorrow's sailors and marines have the tools and capabilities they need to bring to the fight to WIN. This year we have made many significant contributions to Warfighter Readiness in our mission areas of Mine Warfare, Expeditionary Warfare, Naval Special Warfare, and Subsea Warfare. We have made these contributions across the acquisition life cycle, supporting the exploration of new concepts with ONR, developing new systems in acquisition, and providing much needed support for the systems in use by the fleet. In a couple of weeks, you can read about all of our noteworthy accomplishments in the 2019 PCD Annual Report.

Our commitment and dedication to supporting our Warfighter today, tomorrow, and in the future, remains strong. However, I assess Warfighter Readiness OVERALL to be YELLOW/GREEN because the Littoral Battlespace is changing and there are opportunities yet for us to seize. Each day the Navy is moving closer and closer toward the Navy of the future, implementing Unmanned Systems in each of the mission areas we support. We have the foundational technical expertise to support the Warfighter with the increased demand for Unmanned Systems, and we are looking forward to growing in this area. As we like to say, "We were developing Unmanned Systems before Unmanned Systems were cool" and in the coming years we will truly have an opportunity to shine.

“ We were developing
Unmanned Systems before
Unmanned Systems were
cool ”

– Ed Stewart (SES)

Technical Director, NSWC PCD

✓ CUSTOMER

Let's move on to the CUSTOMER dimension of our Balanced Scorecard where we are a bright GREEN. I continue to receive very positive feedback from all our customers, from OPNAV, the PEOs we serve, ONR, and the Fleet. We continued to be technically assertive this year and we exercised our Engineering Agent and Technical Authority voice; telling the customer what they needed to hear, which was not always what they wanted to hear. We stayed true to our role as the Navy's honest broker and trusted agent.

In thanks to our strong relationships with our sponsors we have several Long Term TDY assignments at OPNAV, PEOs, Surface Mine Warfare Development Command, and the Marine Corps Warfighting Laboratory. In the coming year we will establish even more assignment agreements and I encourage each of you to consider these valuable developmental opportunities.

✓ FINANCIAL

Let's move on to the FINANCIAL dimension. In the aftermath of Hurricane Michael, our leadership team faced the challenge of securing funding to return our facilities to operational status, and securing funding to mitigate the financial impact of our Command being closed for 3 weeks. In thanks to our strong relationships across the other Warfare Center Divisions through the ONE TEAM concept, the Warfare Centers are sharing the cost to repair facilities from Hurricane Michael with us. As a result, we will not see an increase in our rates, and future rates will remain an affordable option to our Sponsors. While we have a strong mitigation plan in place for funding repairs, I was tempted to grade the Financial area YELLOW/GREEN because MILCON dollars to build better facilities remain uncertain, and supplemental dollars that would obviate the need for our sister Warfare Centers to bare the burden of our recovery have not been forthcoming.

But there is too much Great News in the Financial arena to be anything other than GREEN. Even though our Command closed for 3 continuous weeks, we saw an uptick in our Business Base in FY19 to \$557M from \$515M the previous year. Our Contracts Department awarded \$276M, up from \$244M in FY18; and we fully executed nearly \$10M of hard-hitting NISE projects, including an exciting Director's Cup competition.

Through effective collaboration between our Business and Technical Departments we met all our FY19 financial targets, including NOR, overhead and carryover.

We also executed \$25M in FY19 toward Hurricane Michael Recovery. It is a remarkable testament to our financial strength that we were able to spend strong on Hurricane Michael recovery efforts without cutting other resources vital to ensuring our technical health, such as workforce development.

Through effective collaboration between our Business and Technical Departments we met all our FY19 financial targets.

– Ed Stewart (SES)

Technical Director, NSWC PCD

PEOPLE

Let's move on to the PEOPLE dimension of the Balanced Scorecard. I am proud to say we are unequivocally a solid GREEN in the PEOPLE dimension. Over the past year I witnessed remarkable leadership and resilience from every facet of our organization. I am very proud of how this organization has taken care of our people by providing as much support as possible in the aftermath of Hurricane Michael. Our team rose to the challenge and we are emerging victorious.

To help you understand the effort required, I would like to share some specific examples. Our Comptroller processed travel claims to cover evacuation costs for more than 700 NSWC PCD employees, reimbursing over \$1.3M; our facilities team accomplished over 500 office moves of personnel due to facilities damage; our leadership team provided as much schedule flexibility as possible to all our personnel managing home recoveries, even providing Stress and Resiliency Training.

Beyond Hurricane Michael support, Inclusion and Engagement efforts continued in FY19 with EEO training held by our Deputy EEO and another successful year of Lean In Circles, which expanded to include New Professionals & Hurricane Michael Recovery. In FY19 our Workforce Development Team worked to establish the PCD Leadership Academy, which will provide leadership and developmental training to all employees, beginning with New Professionals in FY20.

In FY19 our Human Resources hired at a pace similar to FY18 which is impressive after being closed for 3 weeks, hiring 167 of the best and brightest professionals from all around the country, including Scientists and Engineers, Technicians, and Business Professionals. All the other Warfare Center Divisions are taking notice as we moved the needle on diversity for the second year in a row, with 43% diversity hires in new professionals. Furthermore, Our Technical Capability Health Assessment shows we need to continue hiring in FY20 to keep up with demand. Specifically, we will grow our Science and Technology knowledge base, and we have a strong need for software engineers, systems engineers, logisticians, Information Assurance and Information Technology professionals... all of which ties to lifecycle support of our mission areas.

Finally, we have many personnel who are coming to the closing chapter of 30+ year careers at NSWC PCD. A lifetime of service to our service men and women is noteworthy, and we wish those personnel truly the best after a job well done. It also means that our early and mid career personnel need to develop themselves and rise to the occasion to branch up and out and be ready to take up the mantle of leadership.

PROCESSES

Processes are the final area of consideration in the Balanced Score Card construct. In the sunset of our previous strategic plan, our technical processes and CONOPs for monitoring execution are solid, and other Divisions are starting to emulate our practices. As the sun rises on today and tomorrow's landscape, we need to re-assess our processes against that unmistakable sense of urgency. In nearly every leadership venue whether it be in person or in email, whether it be from CNO, the Fleet, NAVSEA, or Warfare Center Headquarters, our Navy Leadership is challenging us to be more efficient in our operations and urging us to go 5X & 10X faster.

We need to meet that challenge head on across all business and technical departments. That said, I do see progress: Our Contracts Department had banner worthy achievements in FY19 awarding a GO FAST OTA ahead of schedule, awarding 6 Seaport Contracts ahead of schedule, and awarding a MASC Follow-on contract in a record 215 days. Our Navy leadership equates Audit Readiness with Warfighting Readiness, so Property Management remains a priority for the Navy; and in FY19 we conducted inventories of over 6,000 OM&S Warehouse items, over 4,000 General Equipment items and 1,000 NAVSUP items to increase our overall inventory accuracy from 70% (Audit 2018) to 92% (Audit 2019). The end result was an audit in NOV 2019 that resulted in the highest rating of all Warfare Center Divisions to date. And in just a few minutes we are going to recognize many individuals and teams across the technical and business departments for their stellar achievements in improving our processes and working with a sense of urgency to advance technologies and deliver products that will improve our warfighting edge.

Despite our strengths and these good news stories, however, I maintain that we are YELLOW in the Process Dimension because our processes continue to be inhibited by our IT tools and networks. We are ill prepared to operate in a Digital Engineering environment with our current tools and network latency problems. It is the single biggest factor in workforce attrition by our young professionals, and it is a huge impediment to going fast. The ONE TEAM Warfare Center TDs have declared war on this problem and will make this a major ONE TEAM initiative for FY 20. This is a problem that must be solved if we are to achieve our Strategic Campaign Goals to Rapidly Deliver Solutions, Be the Undisputed Technical Experts, and Be a Model Organization.

STATE OF THE DIVISION

In summary, the CO and I are proud to report the State of the Division is a mixture of YELLOW, but mostly GREEN in the five dimensions of the Balanced Scorecard; but with a committed workforce, aligned to our Strategic Campaign Plan we will get to GREEN in all areas. Our workforce is our strength, and I continue to draw strength from all of you. Together, we will put Hurricane Michael behind us and move forward to future that is brighter than our past.

Thank you for what you do every day for each other and for our Nation's Warfighters.



ANNUAL AWARDS

U.S. Navy photos by Eddie Green



INDUCTION INTO THE HALL OF FAME



Dr. William Mike Wynn

OUTSTANDING TEAM ACHIEVEMENTS



MEDAL Team

Diana Abee, Attah Ali, James Atkins, Stefanie Barron, Tommy Bingham, Carmen Burch, Ming Cheung, Bill Chong, Adam Coffman, Jason Cohn, Scott Crow, James Dickerson, Nina Davis, Michael Drumheller, Hannah Gentili, Belinda Gunter, Nick Hobbs, Erica Ifode, Pedro Lopez, Michael Mathieu, Chris Meunier, Tom Miller, Kyla Mitchell, Cathy O'Rourke, Michelle Parker, Michael Rosenberg, Roberto Santana, Mark Sergi, Phillip Sowders, John Stitt, Andy Stubblefield, Cody Subject, Nick Szulczewski, Joshua Waters and Linda Wazlavek



Hurricane Michael Evacuation Travel Team

Connie Anderson, Kenyatta Bennett, Adrione Canada, Susan Clancy, Devin Cobb, Gregg Fulks, Laurie Fulks, Stacy Gibson, Elaine Hill, Keri Kazebeer, Geri Kohler, Chris Meissner, Kate Pennington, Paige Sauls, Samantha Snellen, Kay Thomas, Jeremy VonKnoblauch and Michael Wright

OUTSTANDING FLEET SUPPORT



The MHU ISEA Team

Brock Bailey, Jim Brackett, David Dillinger, Mike Elrod, Robert Gudgel, Steve Kantor, Daryl Kunkel, Richard McNaron, Luke Ridley and Frances Rose



Jay Herin

OUTSTANDING ORGANIZATIONAL SUPPORT



Henry Brock Poe



Kristen Campbell

COLLABORATION EXCELLENCE



The DAVD Team

Dennis Gallagher, William Hughes, Richard Manley,
Brian Wentworth and Allie Williams



*Cyber Defense Unmanned
Maritime Systems Team*

Jesse Ardonne, Dr. Matthew Bays, Patrick Currie, Joshua Davis,
Keith Farney, Pamela Stampnick and Dr. Joshua Weaver

EXCEPTIONAL TECHNICAL SUPPORT



Andrew Harrington



Lorene Adams

Steve Kantor on behalf of Lorene Adams

OUTSTANDING PROGRAM SUCCESS



The SSDTE Demonstration Team

David Davila, Justin Grimes, Adam Logan, Marc Miller,
Jason Niemczura, Chris Palmer, Gabriel Perez-Figueroa,
Jesse Routh, Brett Thach, Willis Walker and Kelly Williams

TECHNICAL EXCELLENCE



The Notice 5000 Team

Clay Brookins, John Chandler, Lori Divine, Bobby Dixon, Chad Dunham,
James Flanagan, Dave Fonzi, John Gwin, Frank Hamilton, Katie Handal,
Bobby June, Lauren Love, Dane Maglich, Kathy Mintz, Nicole Newsome,
Lee Noble, Joel Peak, Kim Presnell and Kevin Townsend

NEW PROFESSIONAL EXCELLENCE AWARD



Olivia Farr



Harryel Philippeaux

EXEMPLARY LEADERSHIP



Nick Mitchell



Brandt Weilbacher

OUTSTANDING INNOVATION



Holly Gardner

DR. DAVID P. SKINNER AWARD



Robert Benjamin

WARFARE CENTER AWARDS

MERITORIOUS CIVILIAN SERVICE AWARD



Lanshava Booker (left)

Pamela Fuhrman (right)

COLLABORATION AWARD



The Unmanned Influence Sweep System Test and Evaluation Team

Mallory Bond, Joseph Boza, Ricardo Echeverria, Alex Fournier, Michael Langford, Michael Snider, Willis Walker and Randy Williams



The MH-60S Unmanned Undersea Vehicle Launch and Recovery Team

Timothy Currie, Derek Decker, Jason Goad, Tinsley Ihaksi, Daniel Jordy, Zach Luther, Roland Palmer, Torger Reppen and Fredric Stryner



Sea Fighter Test Team

Jason Goad, Jessica Haig, Andrew Harrington, Fredric Stryner and Nicole Waters



The Undersea Encapsulation Technical Capability Demonstration Team

Jason Boxerman, John Brady, Lee Cofer, Joseph Jacquemin, David Jennings, Amy Laguna, Erik Molina, Bryan Reynoso, Joshua Roddenberry and William Porter

ALAN J. DEAN AWARD FOR TALENT MANAGEMENT



Panama City Division Hiring Team

Lanshava Booker, Dawn Hilty, Ivan Lugo, Kristen Campbell, Kimberly Lawler, Keith Senn and Pamela Fuhrman



Kinsey Taylor

Rex Lawrence on behalf of Kinsey Taylor

KNOWLEDGE SHARING AWARD



The Peoples' Integrated Essential Resource Team

Vatana An, David Galindo, Holly Gardner, Alesia Hance, Katherine Mapp, Allison Roberts, Michael Rowe, Edwin Stewart, Kimberly Ten Broeck, DeQuan Waheed, Haley Walker, and Keely Westbrook.



Research Commons

Don McCall on behalf of Anthony Waterman



PATENTS



AUTONOMOUS AGENT SCHEDULING



Dr. Matthew Bays

TUNABLE PATCH ANTENNA



David Breed



UPCOMING AWARDS

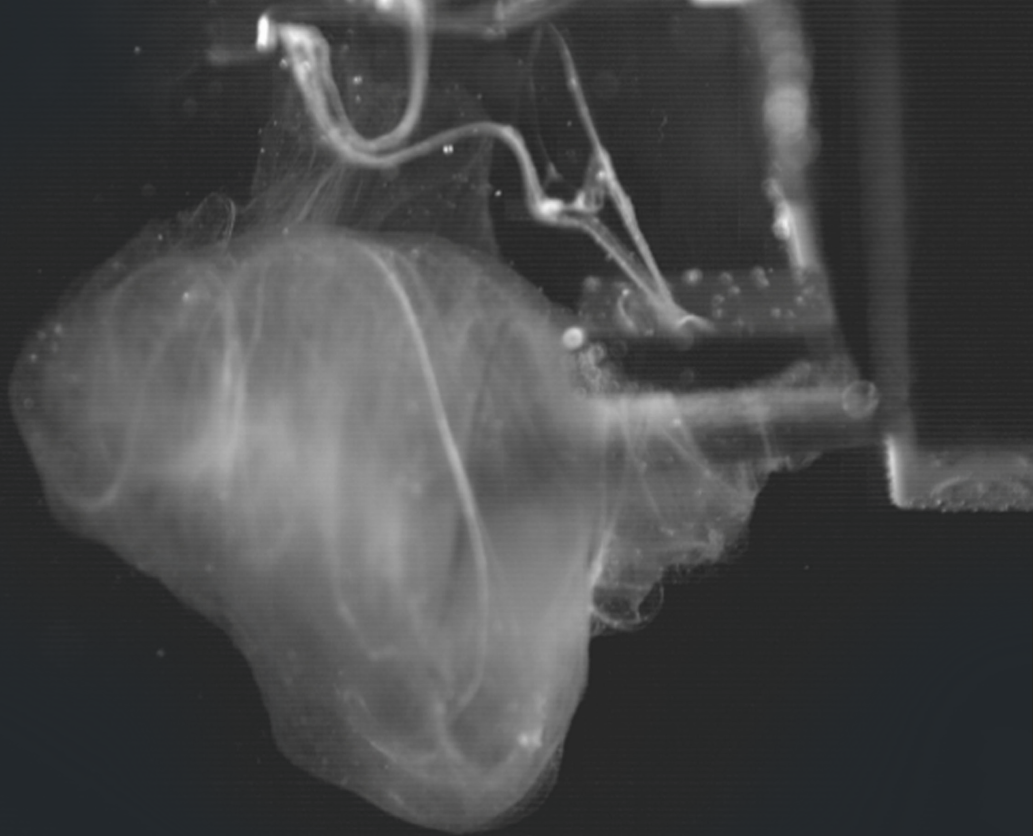
- 01/08 NAVSEA Logistician of the Year /
ADM Stan Arthur Awards for
Logistics Excellence
- 01/08 Institute of Electrical and
Electronics Engineers (IEEE)
Technical Field Awards
- 01/10 Dr. Delores M Etter Top Scientists
and Engineers for the Year Awards
- 01/10 Samuel J. Heyman Service to
America Medals
- 01/14 DoD Distinguished Civilian
Service Award

- 01/24 Russell Egnor Navy Media Awards
- 01/24 DoD Supply Chain Excellence
Awards
- 01/24 Igniting Innovation Awards
- 01/27 USD (Comptroller) Financial
Management Awards
- 02/06 National Defense Industrial
Association (NDIA) Tester of
the Year Awards
- Continuous DoN Agility Awards (Formerly
SECNAV Innovation Awards)

Please contact Kristen Campbell at kristen.campbell@navy.mil for nomination requirements and forms. Dates provided are due dates for package(s) to be received by HR.

*Non-government agency award submissions now require approved public release documentation.

The Maritime Vessel Stopping Occlusion Technologies, or MVSOT, team at the NSWC PCD investigates natural hagfish slime as an inspiration for a non-lethal capability. Courtesy photo



PROMISING NEW TOOL PROTECTS SHIPS, SAILORS

By Katherine Mapp, NSWC PCD Public Affairs

PANAMA CITY, Fla. – Naval Surface Warfare Center Panama City Division (NSWC PCD) is developing another way to protect naval assets and Sailors at the pointy end of the spear.

Maritime Vessel Stopping Occlusion Technologies, or MVSOT, is a promising non-lethal tool for the warfighter to significantly slow or stop an on-coming target vessel. The MVSOT team specifically focuses on technologies that limit or remove the ability of a propulsion system to provide thrust to a boat, but in a reversible manner.

“These technologies are persistent but reversible, allowing the warfighter increased standoff time and distance to de-escalate a potentially threatening situation,” said Dr. Michelle Kincer, NSWC PCD materials engineer. “MVSOT solutions may provide the warfighter a new capability for their toolkit which will allow them more time to ascertain the intent of an oncoming vessel.”

The MVSOT program is working with vendors to test commercially available drogue lines for a near term solution. These drogue lines utilize lengths of rope with sea

anchors to restrict forward momentum of a target boat using drag forces. Testing to date has shown these products to be repeatable and reliable, although limited to only certain vessel types.

The program is developing next generation occlusion materials for a more all-in-one solution. These next generation materials include synthetic hagfish slime and spider silk proteins, which lend advanced swelling, adhesive, and strength properties not available in current commercial products. These materials are derived from natural products and will be more environmentally compatible.

“One of the common methods of occlusion is to utilize material to wrap around the propeller blades, allowing the propeller to continue to rotate but disrupting the blades from pushing any water and, thus, propelling the boat forward,” said Kincer.

NSWC PCD has recently collaborated with the University of Michigan, Utah State University, and Chapman University to characterize occlusion properties and produce synthetic hagfish slime intermediate filament

proteins, and recreate the natural slime-like behavior.

Kincer said hagfish secrete a slime substance as a defense mechanism against predator fish, and the substance swells 10,000 times its original volume when it comes into contact with sea water. The resulting slime can be compared to a fiber-reinforced gel made of intermediate filaments, mucus, and seawater. This slime has shown to be persistent and effective at occluding propellers and intake systems.

“Looking at another material, spider silk rivals the strength of Kevlar and, on a weight comparison basis, steel,” said Kincer. “Our teammates at Utah State University have identified alternative uses of synthetic spider silk proteins which have many properties that non-lethal vessel stopping may benefit from, including robust sponges and underwater adhesives.”

As these next generation solutions develop, the MVSOT team looks to integrate the different materials in a total solution package and test in scaled test tanks as well as in-water at-sea testing. ■

NSWC PCD OVERCOMES HURRICANE CHALLENGES

By Ashley Conner,
NSWC PCD Public Affairs

PANAMA CITY, Fla. – Naval Surface Warfare Center Panama City Division (NSWC PCD) Procurement branch successfully executed over 130 purchase card buys, 500 Military Standard Requisitioning and Issue Procedures orders, 177 contracts, and 158 outgoing funding document buys in September 2019 to end the fiscal year.

“We always see a spike in orders near the end of the fiscal year and it is a challenge to get them all in accurately before the cutoff date,” said DeAnna Pedersen, Procurement branch head. “Every year it takes a lot of effort to get the work done but this year was especially unique because our working conditions were less than ideal.”

In October 2018, a Category 5 hurricane ravaged the Gulf Coast and damaged 82 of NSWC PCD’s 88 buildings.

“Remediation repairs were made to our hurricane damaged buildings but unfortunately the repairs did not hold up and we had to relocate twice after our building flooded this past August,” said Pedersen. “August is when we start to see orders increasing and moving offices made it even more challenging but the team still got the job done.”

The Procurement branch supports the warfighter by procuring the resources, materials, and supplies needed for local day-to-day operations, the fleet and NSWC PCD projects.

“It is a challenge every year to get all of the orders in before the cutoff date,” said Jonathan Chapman, Procurement lead. “In addition to having to move offices, we were also challenged by a mandatory shutdown and continuous system outages of the Navy Enterprise Resource Planning system.”

In order to accomplish all of the required work, the Procurement staff worked alternate hours and weekends while tech screening and purchase creation would run three schedules -- early morning, daytime, and late evening.

“Our Procurement team at NSWC PCD is beyond incredible and they all work very hard to provide excellent customer service,” said Chapman. “They are highly dedicated and continuously looking for ways to improve the process.”

The Procurement team is gathering input from their customers and reaching out to other Warfare Center Procurement teams to leverage their best practices. All of their work helped them overcome their next challenge.

“Our most recent hurdle was the NAVSEA Warfare Center Property Audit in early November,” said Pedersen. “I believe we have made great progress since our last audit. My team poured their heart and soul into their jobs to support this Command. They anticipated challenges and overcame every obstacle in their way.”



U.S. Navy photos by Eddie Green

Despite being displaced from their work center due to a Category 5 hurricane, the NSWC PCD Procurement branch successfully executed:

130	Purchase card buys
158	Outgoing funding document buys
177	Contracts
500	Military Standard Requisitioning and Issue Procedures orders



DeAnna Pedersen, Procurement branch head, Jonathan Chapman, Procurement lead, and the rest of the Procurement staff worked alternate hours and weekends while tech screening and purchase creation would run three schedules: early morning, daytime, and late evening to complete all of their work before the end of the fiscal year.





AUTONOMOUS VEHICLES

SAVE TIME AND MONEY DURING DRY-DOCK INSPECTIONS

By Katherine Mapp, NSWC PCD Public Affairs

Courtesy Photos

PORTSMOUTH, N.H. - Autonomous vehicles recently used for a collaborative competition are putting real world application to the test by leveraging machine learning to support Naval maintenance activities.

During the 2019 Director's Cup, Naval Surface Warfare Center Panama City Division (NSWC PCD) scientists and engineers were challenged to create and field a fully autonomous, artificially intelligent, ground-based vehicle to neutralize a dangerous battlespace.

The Autonomous Dry Dock Survey (ADDS) Team, comprised of NSWC PCD scientists and engineers across three technical departments, partnered with personnel from Portsmouth Naval Shipyard (PNSY) to customize the Clearpath Robotics™ Jackal Unmanned Ground Vehicle platform to tackle a real world application – specifically autonomous inspections of naval shipyard dry docks.

In addition to collaboration with the PNSY Innovative Projects Team, the ADDS vehicles provide the Navy with significant cost savings, while ensuring the ability to monitor safe environments within the nation's shipyard facilities.

Dr. Patrick Walters, NSWC PCD Mechanical Engineer, said the lessons learned from the Director's Cup competition were a natural

starting point for development of the ADDS robot.

"Before the start of the project, the Director's Cup teams at NSWC PCD had already tackled many of the challenges in developing an autonomous unmanned ground vehicle, such as obstacle avoidance, path-planning, and navigation."

Blake Ivy, NSWC PCD systems engineer, said using the Jackal as a base vehicle in the competition, allowed the group to carry-on the knowledge gained and provide a robust system faster than developing a solution from scratch.

According to Ivy, the co-development of the autonomous system with PNSY will save the government time, money and valuable resources.

"Current requirements for surveying dry docks require a manual scan with a small hand-held sensor. The platform we are co-developing will utilize a larger sensor, and allow autonomous inspection of areas," said Ivy. "This means scanning will finish in less time and personnel can monitor remotely. This vehicle will provide an expected cost savings of up to 450 man-hours per dry dock, per year. Multiply that times all of the Shipyard dry docks and you can see a significant annual savings to the Navy."



Ivy said this project might not have happened without the Director's Cup competition.

"Demands for autonomous systems have increased in recent years," said Ivy. "The Director's Cup competition allowed members of the NSWC PCD workforce to develop the skills necessary to compete, and thus expanded the number of available engineers to build these systems."

The ADDS project is sponsored by the Naval Sea Systems Command (NAVSEA) Maintenance and Industrial Operations Directorate Innovation Branch (SEA04X3) and led by the Tactical Innovation Implementation Lab of Naval Undersea Warfare Center Keyport, further reinforcing the One NAVSEA philosophy. ■

By Ashley Conner, NSWC PCD Public Affairs

PANAMA CITY, Fla. — As the lead engineering activity for Mine Countermeasure (MCM) Mission Packages (MP), the Naval Surface Warfare Center Panama City Division (NSWC PCD) provided equipment, personnel, and expertise to demonstrate the modular capability of the MCM MP aboard the United States Naval Ship Hershel “Woody” Williams (T-ESB 4) earlier this month.

The demo included embarkation of the Mine Countermeasures Unmanned Surface Vehicle (MCM USV) with Unmanned Influence Sweep System, the Knifefish Mock-up Unit (KMU), mass models for the Airborne Laser Mine Detection and Airborne Mine Neutralization Systems, the Mission Package Portable Control System and other supporting equipment and containers.

“In partnership with the Program Executive Office (PEO) Unmanned and Small Combatants, Littoral Combat Ship (LCS) Mission Modules Program Office (PMS 420) and PEO Ships, Strategic and Theater Sealift Program Office (PMS 385), we were able to successfully launch and recover both the MCM USV and the KMU while anchored in the Chesapeake Bay,” said Dr. Erin Cotton, NSWC PCD deputy project manager for the MCM MP Test and Evaluation group. “Results from this evolution will be used to plan for the third phase of demonstrations while at-sea in 2020.”

This demonstration showed the ability for the MCM MP to integrate aboard vessels in addition to LCS-class ships. Additional modules will be incorporated in order to fully determine the feasibility of employing the MCM MP on vessel of opportunity.

“NSWC PCD is committed to rapidly delivering solutions to ensure warfighting dominance,” said Dr. Peter Adair, Director of Mine Warfare. “The hard work of our men and women in support of this demonstration achieves that goal by providing a more versatile mine countermeasures capability to the Navy in a shorter timeframe.” ■

NSWC PCD SUPPORTS MINE COUNTERMEASURE MISSION ABOARD VESSEL OF OPPORTUNITY

NSWC PCD provided equipment, personnel, and expertise to demonstrate the modular capability of the Mine Countermeasure (MCM) Mission Package (MP) aboard the United States Naval Ship Hershel “Woody” Williams (T-ESB 4) earlier this month. NSWC PCD is the lead engineering activity for MCM MP.

U.S. Navy photos by Anthony Powers



NAVSEA SCIENTIST OF THE YEAR: JOSHUA SLAUGHTER

By Katherine Mapp, NSWC PCD Public Affairs

PANAMA CITY, Fla. — A scientist at Naval Surface Warfare Center Panama City Division (NSWC PCD) was recently selected as Naval Sea Systems Command's (NAVSEA) Scientist of the Year for his exceptional service.

Joshua Slaughter, computer scientist at NSWC PCD, currently serves as the lead for Synthetic Aperture Sonar (SAS) software development and integration for the NSWC PCD component of the MK18 unmanned underwater vehicle (UUV) program. His role involves transitioning SAS imaging technology into field-applicable, mine-countermeasure capabilities.

"When I learned of my selection, I was certainly surprised. I know there is a tremendous amount of hard work and world-class expertise across the NAVSEA research, development, test, and evaluation (RDT&E) community, so to be selected for this award is truly an honor."

In addition to his role at NSWC PCD, Slaughter also provides subject-matter expert support for program RDT&E partners at the Naval Information Warfare Center Pacific, and close coordination with colleagues in academia including the Applied Research Laboratory Penn State University.

Slaughter and the NSWC PCD SAS team have worked hard to expand the possibilities

of SAS imaging technology. He believes their hard work coupled with the support of his leadership contributed to winning this award.

Ed Stewart, technical director at NSWC PCD, said he is proud to learn of Slaughter's selection to represent the command on the NAVSEA stage.

"I am grateful and delighted to hear one of our scientists was selected for this prestigious honor," said Stewart. "Slaughter's selection is a testament to the caliber of excellence, technical rigor, and talented people that comprise our command."

Slaughter acknowledged that technical rigor can only get you so far and it is relationships that are critical to success.

"Relationships are everything," said Slaughter. "At a working-level it can be all too easy to overlook the relational aspect of our individual role in the Navy's RDT&E enterprise and to focus entirely on the "nuts-and-bolts" technical details of our efforts. Building meaningful professional relationships with customers, partners, colleagues, and coworkers in support of the warfighter is probably the most important work we do on a day-to-day basis." ■



U.S. Navy photo by Eddie Green

PEOPLE *of* PANAMA CITY *with Aaron Deich* Contracting Officer, Code 023



U.S. Navy photo by Katherine Mapp

My name is Aaron and I am Contracting Officer and Team Lead in the Contracts Department at NSWC PCD. I was born in and raised in Bedford, Indiana and left when I was 25.

I was at NSWC Crane for four years before transferring to NSWC Panama City in 2015.

I am fortunate to have the opportunity to lead a great team of highly knowledgeable and motivated Contracting Officers/Contract Specialists. I enjoy the people I work with because we all come from diverse backgrounds and have different perspectives, but have a common goal to expand the advantage. I know that I can rely on my team and my code to help give an alternate perspective and ultimately find a resolution to any contracting problem.

Contract duties encompass a large range of ever changing tasking, and no two days are ever the same. The primary focus of my job is to work with the technical codes, and

the Engineering Liaison Office, to find the best procurement methodology to acquire the supplies or services for the end user: the warfighter.

I was very fortunate to recently be selected for the Naval Sea Systems Command (NAVSEA) Journey Level Leadership (JLL) Cadre VI this year and just returned from the first week of orientation. JLL is a yearlong part-time program that brings together NAVSEA employees from across the Shipyards and Warfare Centers to help cultivate leadership skills and encourage personal and professional growth.

A fun fact about me is that my wife and I love to travel. We try to go to a new country every year and have visited 16 countries thus far. Next year we are planning to add Germany to that list. Our enjoyment for visiting new places is somewhat contradictory in that I loathe flying.

F.I.A.R.

Financial
Improvement
And
Remediation

**The Navy is in a
new era,**
where the culture must
be changed around
materiel to improve
**lethality,
readiness,
and accountability.**

Per the Secretary of the Navy's guidance for audit remediation, there are several efforts ongoing to remove excess materiel and gain proper control and accounting of the remainder to meet existence and completeness goals required by audit guidelines.



Over the **next 5 months**, there will be multiple audits and site visits at NSWC PCD to **improve accuracy** and **efficiency**.



KEY DATES:

31 MAR 20 –

Complete wall-to-wall physical inventory of Navy Working Capital Fund - Supply Management, Operating Materials & Supplies (Trident, Ordnance, and Uninstalled Aircraft Engines) and correct entries to the property system of record.

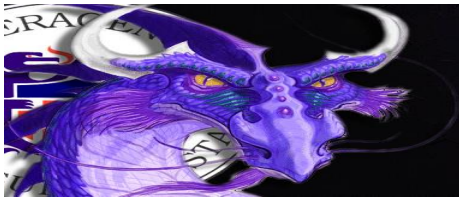
30 JUN 20 –

Complete wall-to-wall physical inventory of Operating Materials & Supplies-Remainder and General Equipment - Remainder and correct entries to the property system of record.

Q3 FY20 –

Independent Public Auditors – Ernst & Young will begin to test Existence & Completeness

The Right Part in the Right Place at the Right Time, Every Time!



NSWC PCD OPERATIONS SECURITY (OPSEC) BULLETIN

December 2019

HOLIDAY SECURITY TIPS

Historically, the holiday season is one of the highest crime periods of the year.
Follow these simple tips to ensure a happy, safe, and secure holiday!

- ☐ Use credit cards or gift cards for online purchases instead of debit cards.
- ☐ No matter what device or internet connection you use when making online purchases, make sure you see the padlock symbol or "https" in the URL bar.
- ☐ If you see a pop-up advertisement online, do not click on the advertisement. Instead, type the link in the URL bar to ensure you are going to the actual website/advertisement and not a malicious one.
- ☐ Beware of making online purchases over public Wi-Fi. It might be free and convenient, but using your mobile device's data plan is much safer.
- ☐ Beware of sales through private companies or individual sellers that sound "too good to be true," because most likely, they are.
- ☐ Only make online purchases through reputable companies.

THINK. PROTECT. OPSEC.



For more information on OPSEC, contact Ernest "Stug" Fentress OPSEC Program Manager (Code 1053) at (850) 636-6356, NSWC PCD - PANAMA CITY, FL 32407



NSWCPCD
DAWIA

**Defense Acquisition Workforce
Improvement Act**

Monthly DAWIA Achievements: individuals who have completed their DAWIA Certification requirements in the last reporting period.

Mike Monroe, DAWIA Program Manager
850-230-7913

Amy Abbott
Jesse Ardonne
Emily Astrom
Michael Baril
Ryon Bates
Susan Bray
Clyde Brown
Luis Cardona-Echevarria
Adam Coffman
Michael Conley
Douglas Copsey
Billy Courson Lii
James Faison

Nicholas Hobbs
Tammy Jankowski
William Jones
Wendy Loncaric
Corey Lounsbury
Thomas McNulty
Marc Miller
Kevin Peltz
Darius Smedley
Shaun Swannick
Samuel Tate
Michael Tavarone
Annabelle Tiller

**Congrats to our NSWC PCD employees for
completing their
DAWIA requirements this month.**

SAFETY

Prepared by: Patrick Beacom, NSW PCSD Safety Specialist



HAPPY HOLIDAYS!

DID YOU KNOW

The word **HOLIDAY** actually comes to us from ancient times when it meant **HOLY DAY**, a time of rest and devotion.

In many cultures and in many lands, the beginning of winter-the winter solstice-is honored as a special holiday. This is the time when earth is the farthest from the sun, resulting in the shortest day of the year. Here are just some of the ways people around the world celebrate the winter solstice.

MESOPOTAMIANS

Some experts say that the **Mesopotamians** were the first to mark the winter solstice over **4,000** years ago. They took part in a 12-day festival to honor the god Marduk.

CHINESE AND TIBETANS

China and **Tibet** also observe the beginning of winter with merry-making and feasting in their winter solstice celebration. It's part of their cultural heritage and has been for centuries.

NATIVE AMERICANS

The **Native Americans** also celebrated the winter solstice and they marked the event with rock paintings. The paintings, by the *Chumsh Indians* who occupied coastal California thousands of years before the Europeans arrived, still exist.

EARLY GERMANS

The early **Germans**, in their winter solstice celebration, built a stone altar to *Hertha*, the goddess of domesticity and the home to mark the beginning of winter. When a fire was lit on the altar, Hertha was able to descend on the smoke and foretell the future of those assembled at the feast in her honor

However you choose to celebrate the winter holidays you're taking part in a tradition that is as old as the sands of time. At this time of year when we count our blessings and enjoy the company of **family and friends**, it's vital to make safety a part of every day. That's especially important in the days leading up to the holidays. You don't want to ruin your celebration with an accident because your mind was elsewhere.

Pay extra attention to the safety rules and guidelines that you follow throughout the year and take extra care when traveling home for the holidays



STAY ALERT



PRACTICE GOOD HOUSEKEEPING



WATCH FOR FIRE HAZARDS



WATCH ROAD CONDITIONS



DON'T DRINK AND DRIVE



BE COURTEOUS

Remember staying safe is the best way to keep your holidays happy.

CELEBRATE THE HOLIDAYS SAFELY



Naval Surface Warfare Center
Panama City Division
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