



Naval Information Warfare Center Atlantic

**AFCEA Quantico-Potomac
Luncheon**

22 August 2019

Mr. Peter C. Reddy, SSTM
NIWC Atlantic
Executive Director (A)





The mission of the Department of Defense is to provide a lethal Joint force to defend the security of our country and sustain American influence abroad.



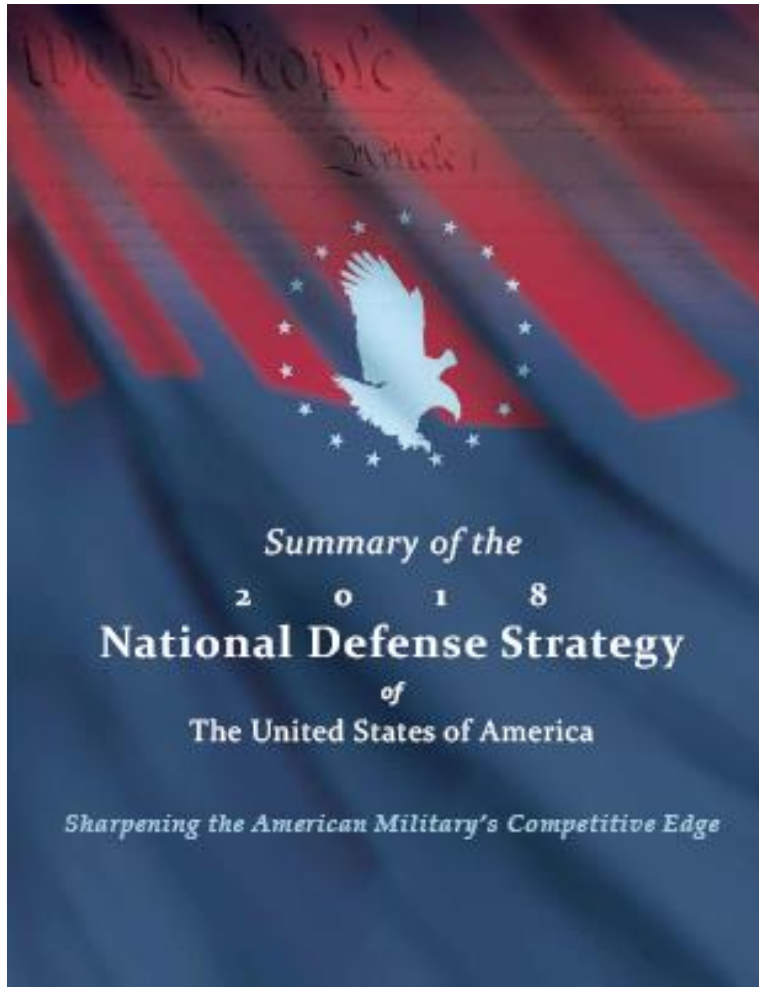
The mission of the Navy is to maintain, train and equip combat-ready Naval forces capable of winning wars, deterring aggression and maintaining freedom of the seas.



The mission of Naval Information Warfare Center Atlantic is to serve our Nation by delivering information warfare solutions that protect national security.

Our Vision: **WIN THE INFORMATION WAR**

National Defense Strategy



The National Defense Strategy acknowledges an increasingly complex global security environment, characterized by overt challenges to the free and open international order and the re-emergence of long-term, strategic competition between nations. These changes require a clear-eyed appraisal of the threats we face, acknowledgement of the changing character of warfare, and a transformation of how the Department conducts business.

National Defense Strategy

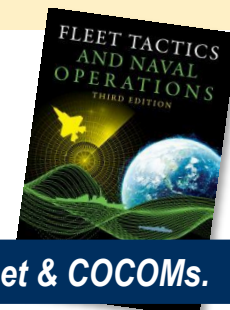
Build a More Lethal Force

- Prioritize preparedness for war
- Modernize key capabilities
 - Nuclear forces
 - Space & cyberspace as warfighting domains
 - C4ISR
 - Missile defense
- Evolve innovative concepts
- Develop a lethal, agile, and resilient force posture & employment
 - Dynamic Force Employment
 - Global Operating Model

NIWC Atlantic provides key personnel (KSAs), labs, processes for this work.



- Joint lethality in contested environments
- Forward maneuver & posture resilience
- Advanced autonomous systems
- Resilient & agile logistics



NIWC Atlantic forward deployed posture for 5th/6th Fleet & COCOMs.

- Cultivate workforce talent
 - Professional Military Education
 - Talent management
 - Civilian workforce expertise

NIWC Atlantic Guiding Principle to focus on the Mission & Warfighter; continue to develop deeper understanding within workforce of warfighter requirements and concepts.

NIWC Atlantic leads NAVWAR enterprise in CDM development & use.

National Defense Strategy

▼ Strengthen Alliances and Attract New Partners

- Uphold foundation of mutual respect, responsibility, priorities, and accountability
- Expand Regional consultative mechanisms and collaborative planning
- Deepen interoperability
- Indo-Pacific, NATO, Mid-East, Western Hemisphere, Africa

NIWC Atlantic employees support Joint, FMS & sec. coop. projects

▼ Reform the Department for Greater Performance and Affordability

- Deliver performance at the speed of relevancy
- Organize for innovation
- Drive budget discipline and affordability to achieve solvency
- Streamline rapid, iterative approaches from dev't to fielding
- Harness and protect the National Security Innovation Base

NIWC Atlantic roles in C2C24, DevOps, FETs, ANTxs.

Continually review CAO/IPT construct to empower performance.

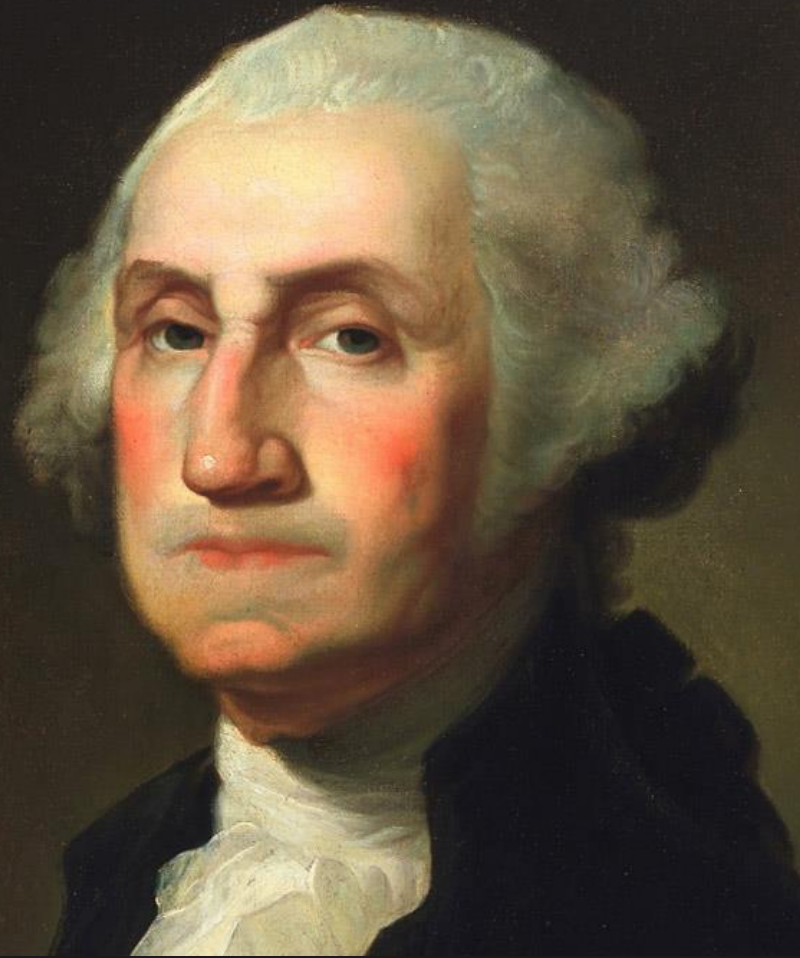
Drive affordability into project work & POH.

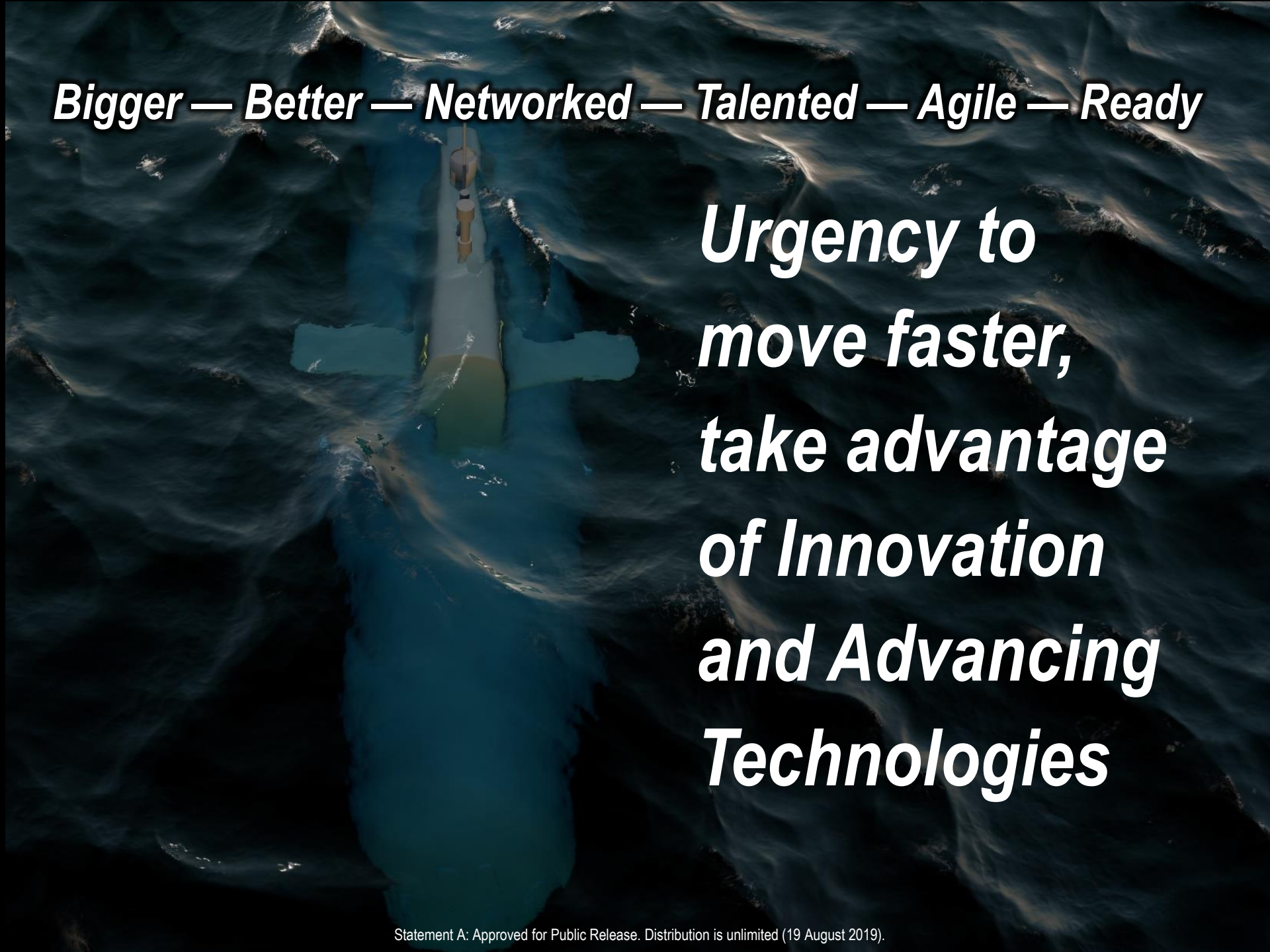
NIWC Atlantic lead roles in C2C24, DevOps, FETs, ANTxs.

NIWC Atlantic leading IWRP outreach to non-traditional industry; leads Technical Exchanges (TGA focus).

George Washington, best captured the value a Navy provides to the American people when he said

“It follows then as certain as that night succeeds the day, that without a decisive naval force we can do nothing definitive, and with it, everything honorable and glorious.”



A high-angle, aerial photograph of a submarine on the surface of the ocean. The submarine is white with a yellow conning tower and is moving through dark, choppy water, leaving a white wake. The text is overlaid on the top left of the image.

Bigger — Better — Networked — Talented — Agile — Ready

***Urgency to
move faster,
take advantage
of Innovation
and Advancing
Technologies***



Commandant's Planning Guidance

38th Commandant of the Marine Corps



38th Commandant's Planning Guidance (CPG)

Five priority focus areas:

- Force design
- Warfighting
- Education and training
- Core values
- Command and leadership

"The Marine Corps will be trained and equipped as a naval expeditionary force-in-readiness and prepared to operate inside actively contested maritime spaces in support of fleet operations. In crisis prevention and crisis response, the Fleet Marine Force – acting as an extension of the Fleet – will be first on the scene, first to help, first to contain a brewing crisis, and first to fight if required to do so."

38th CPG - Warfighting

▼ Naval Operating Concepts

- “Our most challenging adversaries have initiated a new paradigm of warfare, based on the development and fielding of long-range precision weapons, as well as information-related capabilities.”
 - Littoral Operations in a Contested Environment (LOCE)/Expeditionary Advanced Base Operations (EABO)
 - NIWC Atlantic / Pacific working closely with MCWL on Advanced Naval Technology Exercises to advance technology and CONOPS

▼ Composite Warfare

- “Marine Corps must be prepared to operate within Navy Composite Warfare Concept for decentralized command and control.”
- NIWC Atlantic / Pacific uniquely positioned to leverage Navy & Marine Corps C5ISR experience to contribute to development, enhancement, sustainment of Naval tactical Grid

▼ NIWC Atlantic poised to support Future Force Development

- Diversified amphibious fleet (smaller, more specialized ships as complement to current large multipurpose ships)
- Integrated operational architecture to enable information environment operations.
 - Preserving C2 in contested information network environment is paramount.
- Prioritized R&D:
 - artificial intelligence, robotics, quantum computing, nanotechnology.
 - Unmanned and autonomous systems applications for hydrographic survey, reconnaissance, mine warfare, logistics support, deception and warfighting.
 - Swarming and mini-aerial attack systems.
 - C2 in degraded environment: maintain information advantage across all seven warfighting functions.
 - Artificial Intelligence, Data Science, Emerging Technology

Naval Leadership and Priorities



**Chief of Naval
Operations**
**Admiral J. M.
Richardson**

Core attributes:

- Integrity
- Accountability
- Initiative
- Toughness

Lines of effort:

Strengthen Naval power at and from the sea

Achieve high velocity outcomes.

Strengthen our Navy team for the future

Expand and strengthen our network of partners



**Commandant of
Marine Corps**
General D. H. Berger

Focus areas:

- Force Design
- Warfighting
- Education and Training
- Core Values
- Command and Leadership

Vision is for Marine Corps to be manned, trained and equipped as the world's premier naval expeditionary force-in-readiness

Forward postured with fleets to deter conflict and respond to crisis

Globally recognized as an elite Corps of Marines of exceptional talent and virtue.



**Commandant of the
Coast Guard**
Admiral K. L. Schultz

Ready:

We will be prepared to serve and protect the American people and our national interests.

Relevant:

We will be a professional and agile armed force, law enforcer, regulator, and maritime first responder on which our partners confidently rely to address the Nation's increasingly complex maritime challenges.

Responsive:

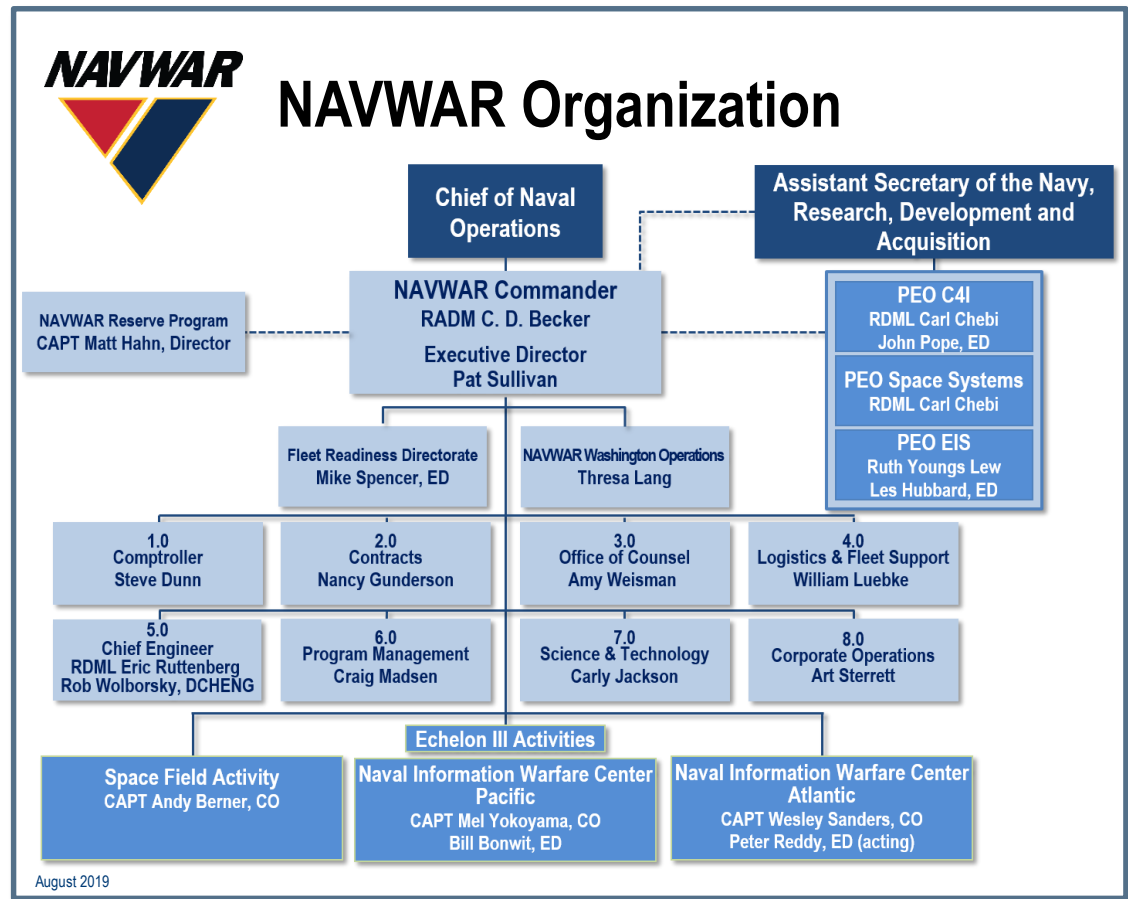
We will employ our bias for action to excel in mission execution as we protect and defend the homeland.

SPAWAR Changes name to Naval Information Warfare Systems Command (NAVWARSYSCOM)

June 3, 2019

Aligns Identity with Mission “This new name more accurately describes the full totality of the mission, supporting naval warfare -- from seabed to space.” – *ADM Richardson*

“In this era of great power competition, **information is a fundamental element of warfare**, an essential concept of the Navy’s strategy, and a **warfare area that transcends the traditional domains of air, sea, land and space**. This name change **underscores the importance of information warfare** in providing our fleet with an unfair advantage in today’s complex and increasingly competitive security environment.” – *RADM Becker*



NIWC Atlantic



Strategically
located to
support the
deployed Navy

Key Technical Capabilities

- Surface Ship and Submarine C4I test and integration facilities
- NAVWAR National Security Operations Center/Cyber Forensics, Vulnerability Assessment Team
- Cyber Forensics Criminal Investigations Laboratory
- Cyber Computer Network Defense Laboratory
- DoD Component Enterprise Data Center
- Commercial and DoD Satellite Comms production and installation
- Vehicle C4I systems integration, testing and production
- Electromagnetic Interference and Electromagnetic Compatibility testing
- Global Distance Support Help Desk
- Air Traffic Control systems development and installation
- Marine Corps Installations Command Electronic Security Systems

Serving our Nation by delivering information warfare solutions that protect national security.

Includes: comms systems (radios), networking systems (routers/switches), cyber operations (red team/forensics/ network defense), intelligence, surveillance, reconnaissance (sensors/decision support applications), data science & analytics, business systems (benefits/personnel) and information security.

FY 2018

- Primarily a Navy Working Capital Fund (NWCF) Organization
- \$2.93B Total Obligation Authority (FY18)
- \$1.6B Total Obligations
 - 41% Small Business
 - 400+ Small Businesses
 - 91% Competition
- New Orders
 - 67% Naval
 - 23% Joint
 - 10% Non DoD
- Workforce (FTEs)
 - 73% Naval
 - 24% Joint
 - 3% Non-DoD
- 5 Departments
- 120 IPTs
- 436 Projects

EOM June 2019

- Top Sponsors
 - NAVWAR & PEOs
 - MARCORSYSCOM
 - NAVSEA & PEOs
 - Defense Health
 - NAVAIR & PEOs
- 4,753 Gov't, 117 Mil.
- 248 New Professionals
- 85 Student Interns
- 13 SSTMs
- Advanced Degrees
 - 58 PhDs
 - 1,258 Masters
 - 2,062 Bachelors
- Top Occupational Series
 - IT Specialist (20%)
 - Electronics Engineer (13%)
 - Computer Scientist (12%)
 - Electronics Tech (9%)
 - Mgmt & Prog Analyst (8%)

Organized Around Teams

Integrated Product Team (IPT) competencies cooperatively functioning together to produce goods and services

Departments (cost, schedule and performance)

Fleet C4I and Readiness

Charlie Adams

Expeditionary Warfare

Kevin Charlow

Enterprise Systems

Patrick Fitzgerald

Shore C2ISR and Integration

Bruce Carter

Science and Technology Department

Dr. Suzanne Huerth

5 Depts — 120 IPTs — 436 Projs

Top Occupational Series

IT Specialist (20%)
Electronics Engineer (13%)
Computer Scientist (12%)
Electronics Tech (9%)
Mgmt & Prog Analyst (8%)

IPT

IPT

IPT

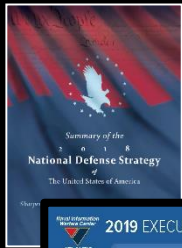
IPT

IPT

1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
Finance Virginia Pitts and Tony Jones	Contracts Steve Harnig	Office of Counsel Barbara Shestko	Logistics & Life Cycle Engineering Brad Hoisington	Engineering Erick Fry	Program & Project Mgmt Pete Van	Science & Technology (includes Work) Dr. Suzanne Huerth	Corporate Operations Dave Monahan

Competencies (people, processes and tools)

Statement A: Approved for Public Release. Distribution is unlimited (19 August 2019).



DoD and the Navy has a clear strategy for what is needed now and for the future.



NIWC Atlantic

2019 Execution Plan

Clear strategy to execute the National and Navy strategy.

We can't execute without support of the defense industry.

PRODUCT

Develop and deliver capabilities that expand our information warfare advantage.

PEOPLE

Recruit, develop and retain a credentialed workforce to meet technical requirements for today and tomorrow.

PROCESS








Advance efficiency and enhance effectiveness of processes to accelerate capability delivery and improve employee experience.

Industry: Match and deliver the Navy's demand for new technologies and equipment.

Ensure the growth and health of technical knowledge and skills.

Improve planning and communication. Keep lines of communication open, deliver on time.

Technology Growth Areas (TGAs)

-  **On-Demand Manufacturing:** Produce products and/or components, when or as they are required at the point of use, using additive and/or traditional manufacturing methods. (Steve Lariviere)
-  **Model-Based Systems Engineering (MBSE):** Technologies used to support the development, management and application of virtual constructs of varying fidelity across the spectrum of systems engineering. (David Smoak)
-  **DevSecOps:** Refers to replacing siloed Development, Security and Operations to create multidisciplinary teams that collaborate with shared and efficient practices and tools. (Kathryn Murphy)
-  **Enterprise Resource Tools:** Aims to improve enterprise's productivity and efficiency by providing business logic support functionality. (Kathryn Murphy)
-  **Assured Communications:** Addresses the demand for resilient, and sometimes covert, wired and wireless communications in degraded and/or denied environments. (Ann Rideout)
-  **Cloud Computing:** IT modernization and digital transformation for resilient infrastructure, platform and software services. (Ann Rideout)
-  **Mobility:** Provide Wireless Technology and enterprise access for the warfighter to engage with a mobile environment and applications, anytime, anyplace (Ann Rideout)
-  **Data Science and Analytics:** Provide warfighters with disruptive analytics-driven, data-informed, and technology-empowered capabilities to drive decision advantages and optimal mission outcomes. (Rob Keisler)
-  **Internet of Things (IoT) and Embedded Systems:** Provide awareness to the warfighter at the edge by connecting devices embedded with state-of-the-art sensors, software, and electronics. (Rob Keisler)
-  **Cyber Warfare:** Ensures availability, integrity, authentication, confidentiality and nonrepudiation of data sources. (Erick Fry)
-  **Autonomy:** Enabling systems to adapt their actions to changes in their mission and operating environment without the intervention of a human operator. (Dr. Suzanne Huerth)

The TGAs represent technology areas, disciplines and associated culture changes we are targeting to become future command core competencies.

Information Warfare Research Project (IWRP)

Advancing Naval IW through rapid prototyping on a global scale

Focusing on underlying technologies that advance Naval IW capabilities through a consortium that can support research, development and prototyping



IWRP:

- Enables rapid research for IW
- Prototype projects in the area of IW
- Increases access to innovative commercial solutions for defense requirements
- Fosters innovation with non-traditional industry partners
- Allows Prototype consideration through Industry initiated Ideas

OTA:

- Greatly increase speed to award
- Reduce barriers to competition
- Increase access to innovative commercial solutions
- Leverage advanced commercial technologies

10 U.S.C. § 2371b authorizes DoD to carry out transactions for prototype projects other than a procurement contract, or cooperative agreement

Authorizes "Other Transaction for Prototype Projects"

Prototype projects directly relevant to enhancing the mission effectiveness of military personnel and the supporting platforms, systems, components, or materials proposed to be acquired or developed by the DoD, or for the improvement of platforms, systems, components, or materials in use by the armed forces

Prototype

A prototype project is used to evaluate the technical or manufacturing feasibility or military utility of a particular technology, process, concept, end item, effect or other discrete feature

Can be

- Proof of concept
- Pilot
- Novel application of commercial technology for defense purposes
- Creation, design, development, demonstration of technical, evaluation or operational utility
- *Or a combination of the above*

May include

- Systems
- Subsystems
- Components
- Materials
- Methodology
- Technology
- Processes
- Agile development activity

The quantity should generally be limited to that needed to prove technical or manufacturing feasibility or evaluate military utility

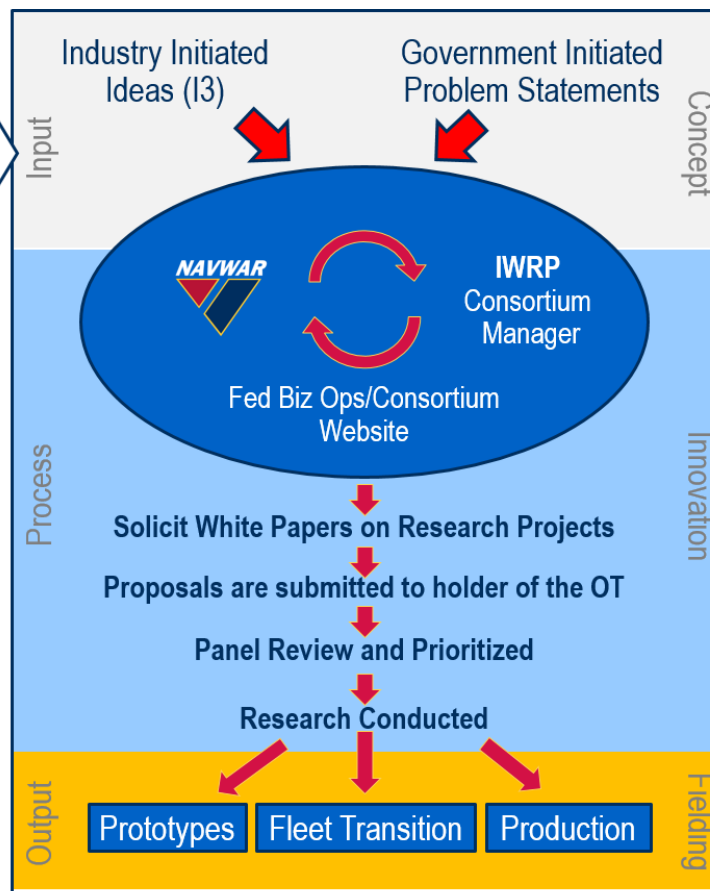


IWRP Execution Process

▼ IWRP uses a consortium based approach.

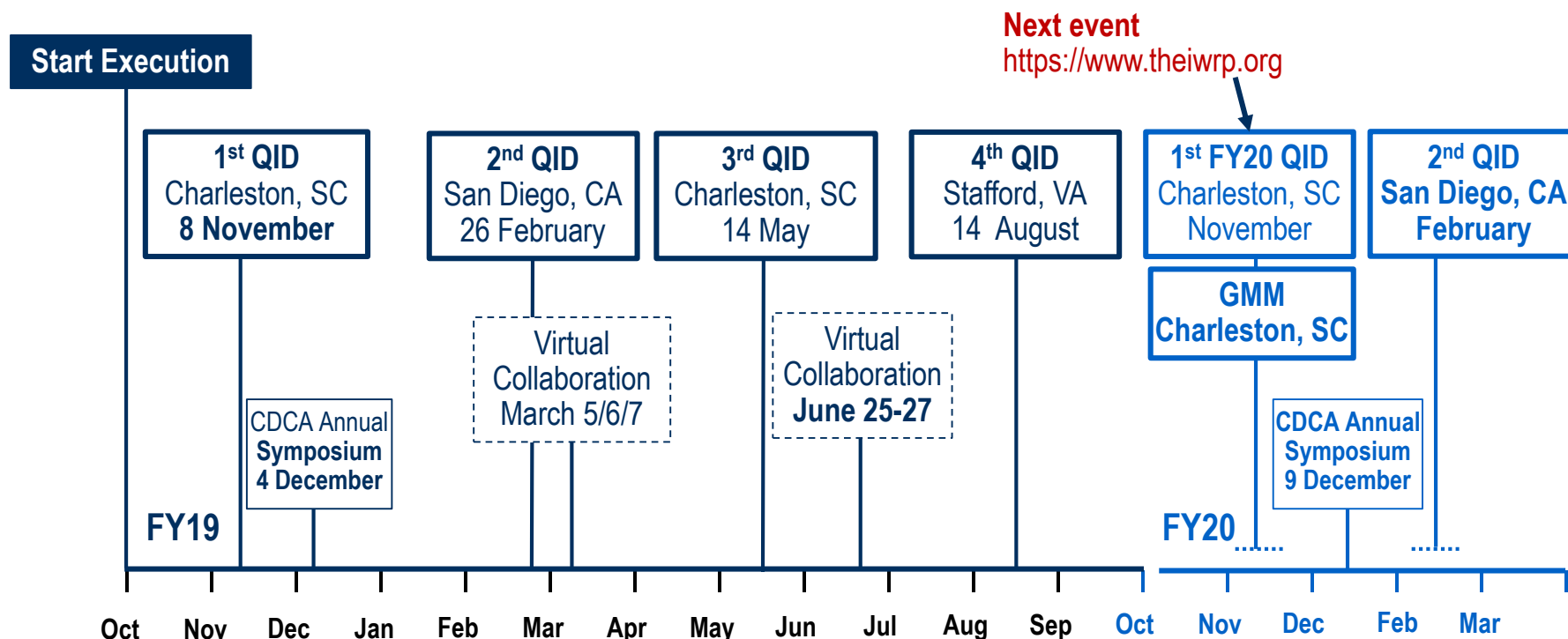
▼ Scope/IWRP Technology Areas

- Cyber Warfare
- Data Science/Analytics Technologies
- Assured Communications
- Cloud Computing
- Enterprise Resource Tools
- Collaboration and Social Networking
- Autonomy
- Internet of Things (IoT) Embedded Systems
- Mobility
- Model-Based Systems Engineering (MBSE)
- On-Demand Manufacturing
- Technologies that would enable and improve:
 - Assured Command and Control (AC2)
 - Battlespace Awareness (BA)
 - Integrated Fires (IF)



Rapid fielding
or decision
to move to
traditional
acquisition

Schedule



Points of Contact

To become a member of the IWRP consortium go to
<https://www.theiwrp.org>

NIWC Atlantic

- **Don Sallee** – Program Manager
• donald.sallee@navy.mil
- **Lisa Rosenbaum** – Agreement Officer
• lisa.rosenbaum@navy.mil

NIWC Pacific

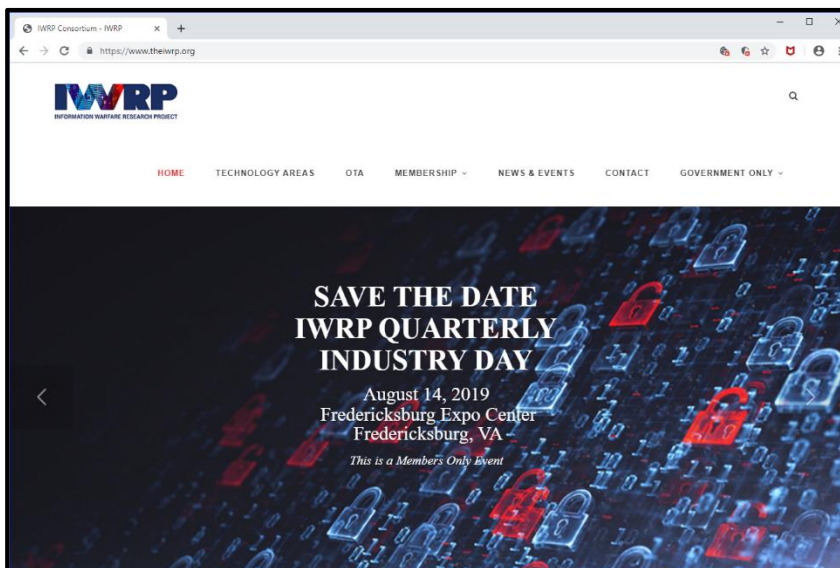
- **Vince Squitieri** – IWRP IPT Lead
• vincent.squitieri@navy.mil
- **Sharon Pritchard** – Agreement Officer
• sharon.pritchard@navy.mil

Where to Get Additional Information

Internal NAVWAR Enterprise Wiki Page
(govt. access only)
https://wiki.spawar.navy.mil/confluence/x/7-N_Dw



Public Facing IWRP Website
<https://theiwrp.org>



Dashboard / ... / Command Initiatives Library

Information Warfare Research Project (IWRP)

What do you think about this content?
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IWRP
INFORMATION WARFARE RESEARCH PROJECT

Advancing Naval Information Warfare Through Rapid Prototyping on a Global Scale

The IWRP is a consortium of non-traditional industry and academic partners formed to prototype innovative technologies for SPAWAR's customers.

A Virtual Industry Day will be held on 25 - 27 June. The cut-off date for new problem statements is 05 Jun 2019 .

Contact Information/POCs:

<p>IWRP Program Manager (NIWC Atlantic):</p> <p>Don Sallee donald.sallee@navy.mil 843-218-4345</p> <p>IWRP Agreements Officer (NIWC Atlantic):</p> <p>Lisa Rosenbaum lisa.rosenbaum@navy.mil 843-218-5982</p>	<p>IWRP IPT Lead (NIWC Pacific):</p> <p>Vince Squitieri vincent.squitieri@navy.mil 619-553-3800</p> <p>IWRP Agreements Officer (NIWC Pacific):</p> <p>Sharon Pritchard sharon.pritchard@navy.mil 619-553-3200</p>
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Upcoming Events:

Description	Location	Date
Proposal Evaluation Process Guidance / Q&A Email: IWRP-ict@navy.mil for invitation & teleconference dial-in	Teleconference	Tuesdays 1200-1300
Cut Off Date for Problem Statements for June Virtual QID		05 Jun 2019
Virtual Quarterly Industry Day	Webcast	25 - 27 June 2019
Cut Off Date for Problem Statements FY19Q4		17 Jul 2019
Quarterly Industry Day (QID) FY19Q4	Stafford, VA	14 Aug 2019

IWRP Dashboard:

- IWRP Dashboard 05 June 2019.pptx

Forms and Job Aids:

- Problem Statement Intake Form_Section1_Rev21_20190411
- Problem Statement Intake Form_Section2_Rev20_20190502019.docx
- Prototype Project Quad Chart Example & Template **Updated!**
- SOW Template 20190513 - REV A.docx
- Government Furnish Property_N65236-18-9-0001.pdf
- IWRP Rules of Engagement for Collaboration_20190219.pptx
- IWRP Ordering Guide_DRAFT_rev28_20190528.pptx
- IWRP RACI Chart_DRAFT_Feb 2019
- Non Severability Statement Job Aide 4-10-2019.docx
- AOR Nomination Letter 5-5-2019 REV A.doc
- FISCAL LAW POLICY FOR APPROPRIATIONS.docx

Quarterly Industry Day 14 May 2019 Registration Link

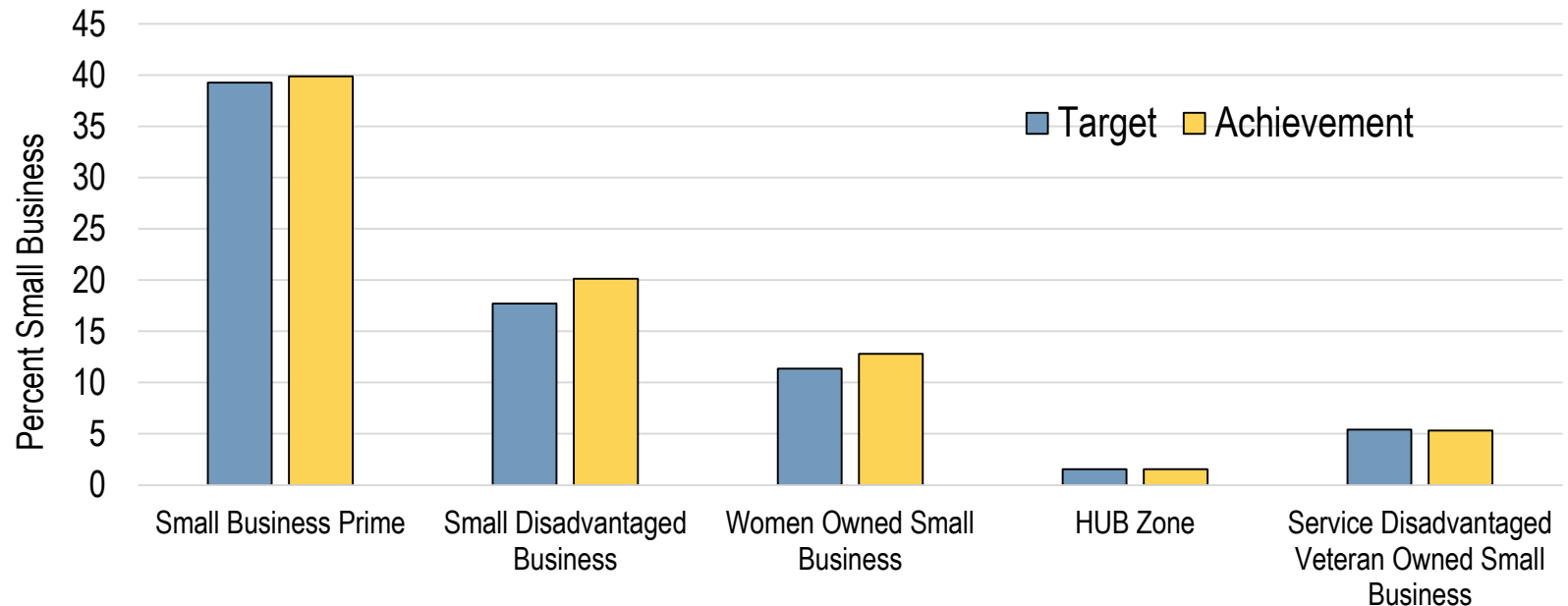
BIDS Information:

- BIDS Quick Card
- BIDS Prototype Review and Evaluation Brief
- Link to BIDS

Recent Briefs:

- IWRP SBIOI.pptx
- IWRP_QID_14May2019_Final.pptx
- IWRP OTA Department Briefing Jan 2019 - Final.pptx
- IWRP External Brief 13 May 2019.pptx

FY19 Small Business Targets and Achievements



31 July 2019	SB	SDB	WOSB	HUB Zone	SDVOSB
Dollars obligated	\$514,539,298.	\$259,582,300	\$165,419,521	\$20,120,582	\$69,694,297
Target	39.27%	17.7%	11.37%	1.55%	5.42%
Achievement	39.89%	20.13%	12.83%	1.56%	5.40%

Engagements with Industry and Academia

▼ Formal Initiatives with Industry

- Contracts Industry Council: CHAS (bimonthly)
- Industry Days CHS/HR (As Required)
- Technology Exchanges CHS/HR (Qtr)
- Small Business Industry Outreach Initiatives (SBIOI): CHAS (Qtr)
- Women in Defense Speed Networking: CHAS (Qtr)
- NOLA SBIOI: NOLA (Annually)
- Tidewater Assoc. of Service Contractors SBIOI: HR (Annually)
- AFCEA WEST: SD (Annually)
- DoN Gold Coast: SD (Annually)
- Sea Air Space: DC (Annually)
- Salute to Small Business (SBA): Columbia, SC (Annually)
- ONR S&T: DC (Annually)
- C5ISR: CHAS (Annually)
- Society of Military Engineers (SAME) SB Conference CHAS (Annually)
- SC Research Authority (SCRA) SB Outreach: CHAS (As Requested)
- Small Business Dev. Center Training: CHS/NOLA (Qtr)
- Monthly Industry Luncheons (As Requested)

▼ Informal Initiatives with Industry

- Weekly one-on-one meetings (as requested) in conjunction with the Small Business Development Center: CHS/NOLA
- Daily emails/calls

Industry Resources



For the innovators
<http://www.defenseinnovationmarketplace.mil/navy.html>



Doing
Business with
NAVWAR
NAVWAR e-
Commerce
Central (E-CC)

<https://e-commerce.sscno.nmci.navy.mil>



NIWC Atlantic Public Page

<http://www.public.navy.mil/navwar/Atlantic/Pages/ForIndustry.aspx>

▼ Formal Initiatives with Academia

- Cooperative Research and Development Agreements (as required)
- Partnership Intermediary Agreements (as required)
- Patent License Agreements (as required)
- Commercial Service Agreements (As required)
- Educational Partnership Agreements

Engagements for innovative solutions and improvements in delivery and performance



Serve our Nation by delivering information warfare solutions that protect national security. WIN THE INFORMATION WAR.



NIWC Atlantic is part of the Naval Research & Development Establishment (NR&DE)

Web: <https://www.public.navy.mil/navwar/Atlantic> Facebook: <https://www.facebook.com/NavalInformationWarfareSystemsCommand>

Twitter: <https://twitter.com/navwarHQ> Instagram: <https://www.instagram.com/spawarhq/> LinkedIn: <https://www.linkedin.com/company/spawar/>

Glassdoor: https://www.glassdoor.com/Overview/Working-at-SPAWAR-Systems-Center-Atlantic-EI_IE638508.11,41.htm

Employment opportunities: <https://www.usajobs.gov/> NIWC Atlantic Small Business: <https://www.public.navy.mil/navwar/Atlantic/Pages/ForIndustry.aspx>

NAVWAR Contract Directorate Office: <https://e-commerce.sscno.nmci.navy.mil>