



# Naval Information Warfare Center Atlantic

NIWC Atlantic NOLA Detachment  
**Industry Outreach Event**  
UNO Research and Technology Park  
14 November 2019

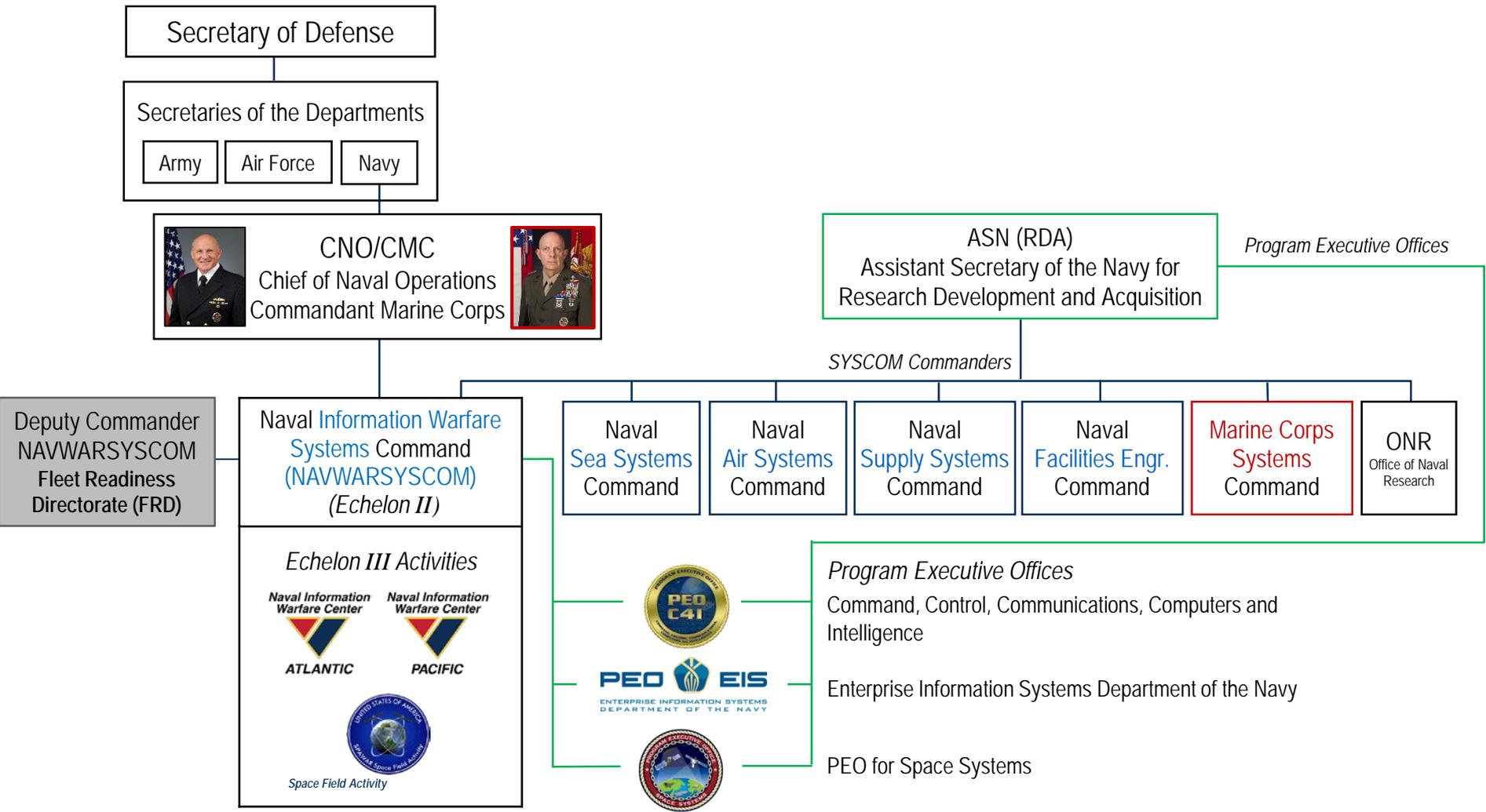
Mr. Peter C. Reddy, SES  
Executive Director

# NIWC Atlantic

**Mission:** Serving our Nation by delivering information warfare solutions that protect national security. Includes: communication systems (radios), networking systems (routers/switches), cyber operations (red team/forensics/ network defense), intelligence, surveillance, reconnaissance (sensors/decision support applications), business systems (benefits/personnel) and information security.



# NAVWAR in the Department of the Navy Structure



# Strategically Located

▼ NIWC Atlantic ▼ NIWC Pacific



## Other CONUS/OCONUS

265 Gov't, 2 Mil  
Supports our warfighters with IT and information warfare capabilities wherever they are



**Hampton Rds, VA**  
934 Gov't, 85 Mil  
Ship and Submarine installations, upgrades and IT support



**New Orleans, LA**  
224 Gov't, 8 Mil  
Develop and support software programs that help our warfighters with pay and benefits



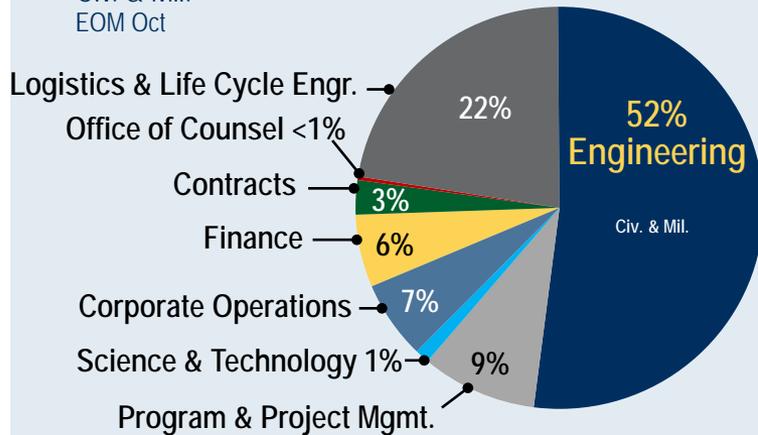
**National Capital Region** 171 Gov't, 1 Mil  
Gather and understand information that keeps our warfighters and nation safe



# Workforce/Operational Profile

## NIWC Atlantic

Workforce by Competency  
Civ. & Mil.  
EOM Oct



\$3.35 billion Total Obligation Authority (FY19)

5 Departments — 120 Integrated Product Teams — 436 Projects

### Technical Leadership

- 13 Senior Science and Technical Managers (SSTMs)
- 248 New Professionals
- 85 Student Interns
- 57 PhD; 1,289 Masters; 2,135 Bachelors

### Top Occupational Series

(61% of our workforce)

- IT Specialist
- Electronics Engineer
- Computer Scientist
- Electronics Tech
- Mgmt & Prog Analyst

Primarily a Navy Working Capital Fund (NWCF) Organization, relying on sales revenue rather than direct Congressional appropriations to finance operations

NWCF improves cost awareness, promotes cost management & increases flexibility

- ✓ Generates adequate revenue to cover cost of operations
- ✓ Operates on a break-even basis

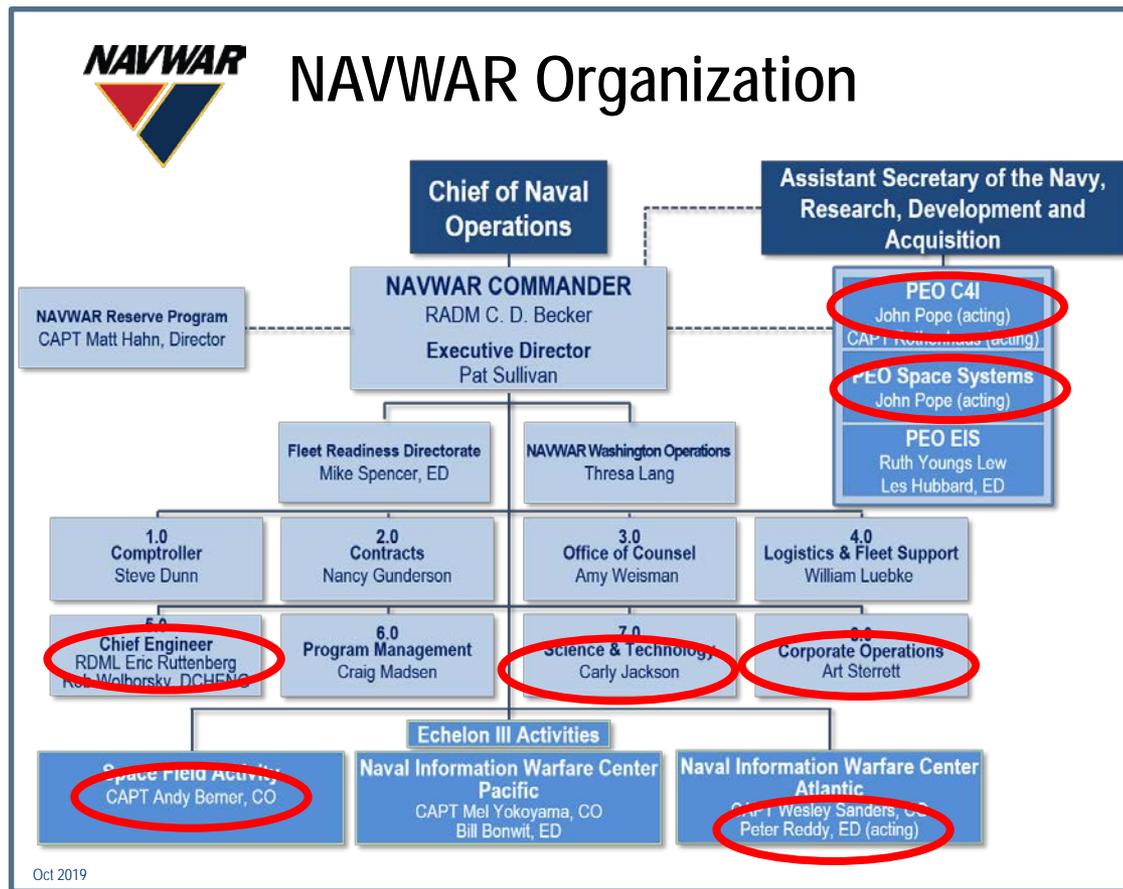
Optimizing our people, processes and tools to rapidly deliver IW solutions

# SPAWAR Changes name to Naval Information Warfare Systems Command (NAVWARSCOM)

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*

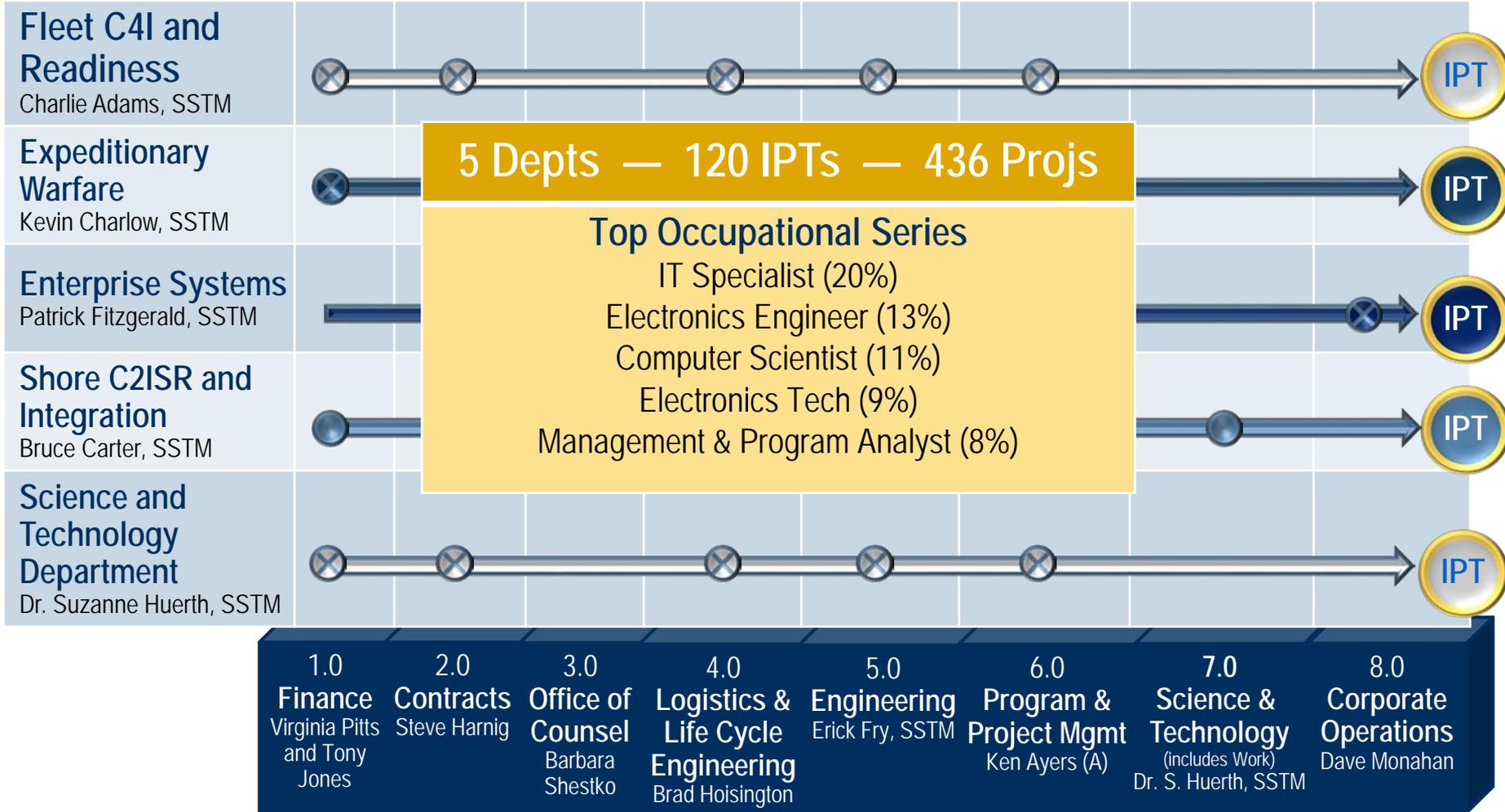
"In this era of great power competition, information is a fundamental element of warfare, an essential concept of the Navy's strategy, and a warfare area that transcends the traditional domains of air, sea, land and space. This name change underscores the importance of information warfare in providing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



# Organized Around Teams

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

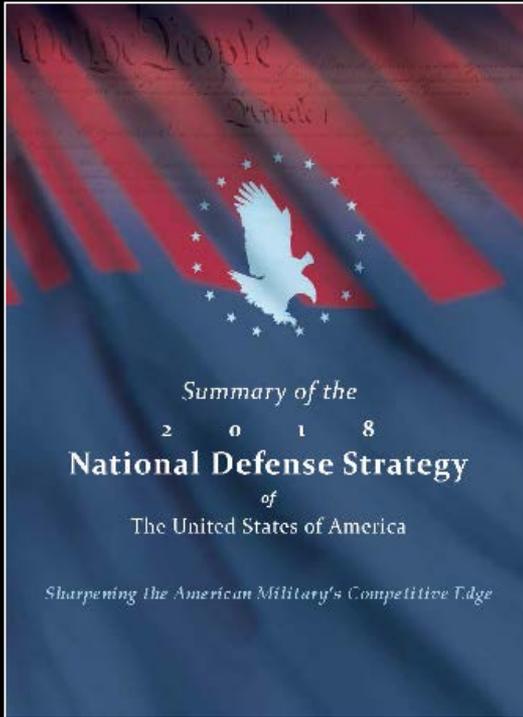
Departments (cost, schedule and performance)



## Competencies (people, processes and tools)

Statement A: Approved for Public Release. Distribution is unlimited (12 November 2019).

# National Defense Strategy



- Long term strategic competition with China and Russia
- Combat-credible forward presence in Asia and Europe
- Sustainable missions in Middle East and Central Asia
- Dynamic force posture and employment
- Lethal resilient and Agile Joint Force



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

# First message to the fleet from 32nd Chief of Naval Operations Adm. Michael Gilday

I am humbled and honored to be your Chief of Naval Operations. Together, we are part of the greatest navy in the world. Everyone on our team – officers and enlisted Sailors, active and reserve, uniformed and civilian – plays an important part in making sure we not only remain the greatest navy in the world, but that we get even better.

For the first time in a very long time, we face serious challenges at sea around the world. For decades, we took for granted that no other blue-water navy would dare take us on. That's no longer true. The U.S. Navy has been and will continue to be a global force for security and stability. But there are other **nations who would use their maritime forces to threaten the freedom of the seas** to intimidate their neighbors or to coerce others in violation of international law. Those maritime forces are growing in numbers and in strength. Still others know they cannot take us on at sea but will try to attack our Navy in areas like cyber.

**Rapidly modernizing our Navy and keeping pace with technology will remain a priority for US.** But I still believe what my first chief told me, that people are our most important weapons system. A well trained force is our competitive advantage. I look forward to hearing from leaders at every level at how we can continue to make improvements for Sailors and their families.

And I have a great sense of urgency to get after solutions to the challenges we face.

In the coming weeks, my FIRST priority will be visiting with many of you. I will work with our leaders in the fleets, with our Marine Corps teammates and with our other joint service and international partners as we develop our way ahead to meet these challenges.

**We will question our assumptions. We will think differently about the competition we are now in. We will be the Navy the nation needs now, and we will build the Navy the nation needs to fight and win in the future.**

What remain constant are our core values of honor, courage and commitment. We will remain true to our core attributes of integrity, accountability, initiative and toughness. We will remain the premier Navy in the world, and I know we will be even better tomorrow than we are today.

**Thank you for all you do for our Navy and for each other. I'll see you out in the fleet.**



<https://navylive.dodlive.mil/2019/08/23/cno-gildays-message-to-the-fleet/>



## Commandant's Planning Guidance

*38th Commandant of the Marine Corps*



38<sup>th</sup> Commandant's Planning Guidance (CPG)

## Five priority focus areas:

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

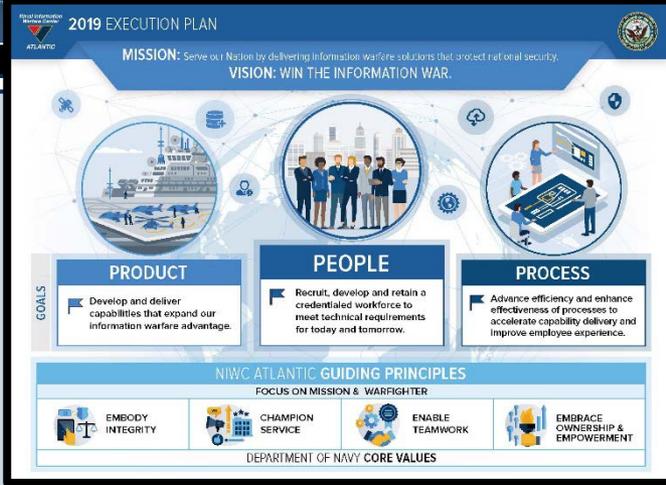
"The Marine Corps will be trained and equipped as a naval expeditionary force-in-readiness and prepared to operate inside actively contested maritime spaces in support of fleet operations. In crisis prevention and crisis response, the Fleet Marine Force – acting as an extension of the Fleet – will be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

# Naval Operating Concepts

- ▼ **Distributed Maritime Operations (DMO)** concept: a central, overarching operational concept, that will weave together the principles of integration, distribution and maneuver to maximize the effectiveness of the fleet Maritime Operations Centers to synchronize all-domain effects.
  - “DMO describes fleet-centric warfighting capabilities necessary to gain and maintain sea-control through the employment of combat power that may be distributed over vast distances, multiple domains, and a wide array of platforms.
- ▼ **Littoral Operations in a Contested Environment (LOCE)** concept addresses the littoral component of all domain access by examining options for integrated Navy-Marine Corps operations to overcome sea denial forces in contested littoral environments.
  - This concept is derived from an assessment and comparison of friendly and adversary capabilities in the near future. It spans a range of naval operations that extends from forward postured formations conducting crisis response in uncertain environments on one end to larger formations established to conduct significant contingencies in openly hostile environments on the other.
- ▼ **Expeditionary Advanced Base Operations (EABO)** concept enables the naval force to persist forward within the arc of adversary long-range precision fires to support our treaty partners with combat credible forces on a much more resilient and difficult to target forward basing infrastructure.
  - EABO are designed to restore force resiliency and enable the persistent naval forward presence that has long been the hallmark of naval forces.



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



## NIWC Atlantic 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 Focus Areas

- 
**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)

*Update in progress*

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



Augmented reality  
prototype/Spectrum Hunter

Spectrum Hunter a RF emission detection, localization technology aimed at increasing warfighter safety.

- ▼ Demonstrated nine exploratory technologies
- ▼ Provided a platform for more than 35 gov't agencies, industry and academia to test technology prototypes emphasizing maneuver, logistics and force protection capabilities.



Drone swarms

## Advanced Naval Technology Exercise (ANTX) East Demonstration

Marine Corps Base Camp Lejeune, North Carolina July 2019



# 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

# Engagements with Industry and Academia

## ▼ Formal Initiatives with Industry

- Contracts Industry Council: CHS (Bi-monthly)
- Industry Days CHS/HR (As Required)
- IWRP Industry Days (Qtr)
- Technology Exchanges CHS/HR (Qtr)
- Small Business Industry Outreach Initiatives (SBIOI): CHS (Qtr)
- Women in Defense Speed Networking: CHS (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 Summit: CHS (Annually)
- Society of Military Engineers (SAME) SB Conference CHS (Annually)
- SC Research Authority (SCRA) SB Outreach: CHS (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>

 @DON\_OSBP  
@DODSBIR



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

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

  
INFORMATION WARFARE RESEARCH PROJECT  
<https://www.theiwrp.org>



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

Naval Information  
Warfare Center



ATLANTIC

# 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](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>