

Naval Information  
Warfare Center



ATLANTIC

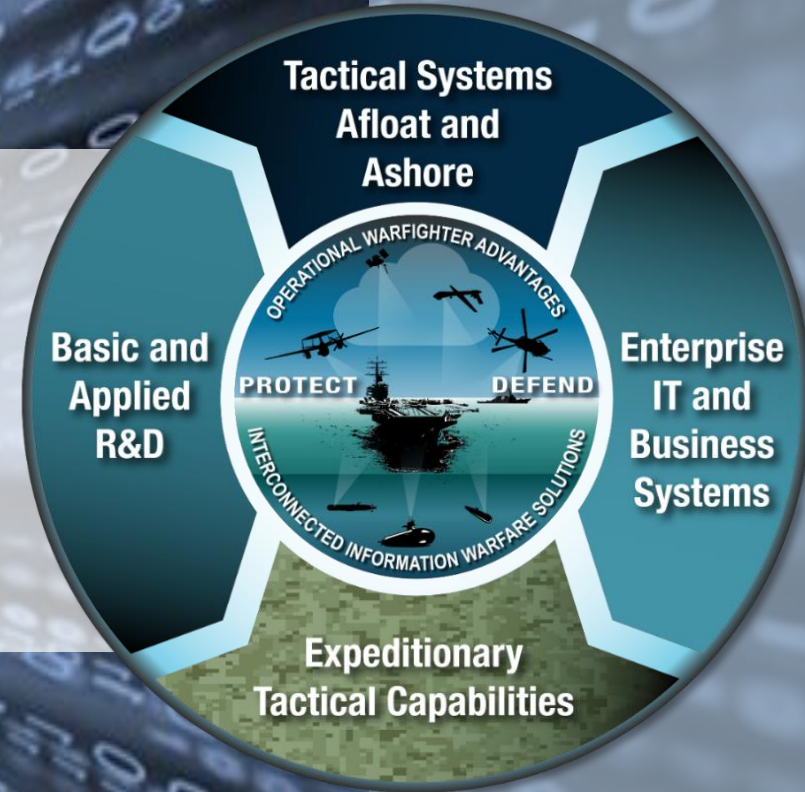
Naval Information Warfare Center Atlantic

# Speed to Capability

69th Strategic Business Industry Outreach  
Initiative (SBIOI) Symposium  
24 October 2024

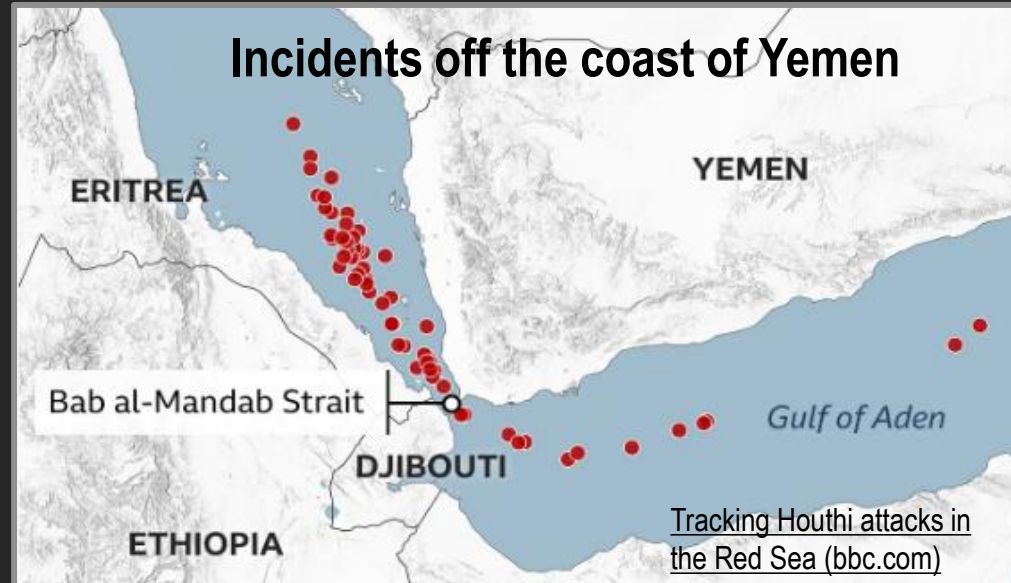
Mr. Greg Hays, SSTM  
NIWC Atlantic

DSE Rapid Prototyping & Experimentation



# Our Current Environment Demands Urgency

- ▼ Changing character of war
- ▼ Cheaper more accessible technology
- ▼ PRC, multi-domain/multi-axis threat
- ▼ Growing nuclear arsenal
- ▼ Active battlefields from Ukraine to the Middle East
- ▼ Terrorism remains a persistent condition



China on path of being ready to invade Taiwan by 2027





# NIWC Atlantic poised to support our Nation's warfighters

## Executing National and Naval Strategies



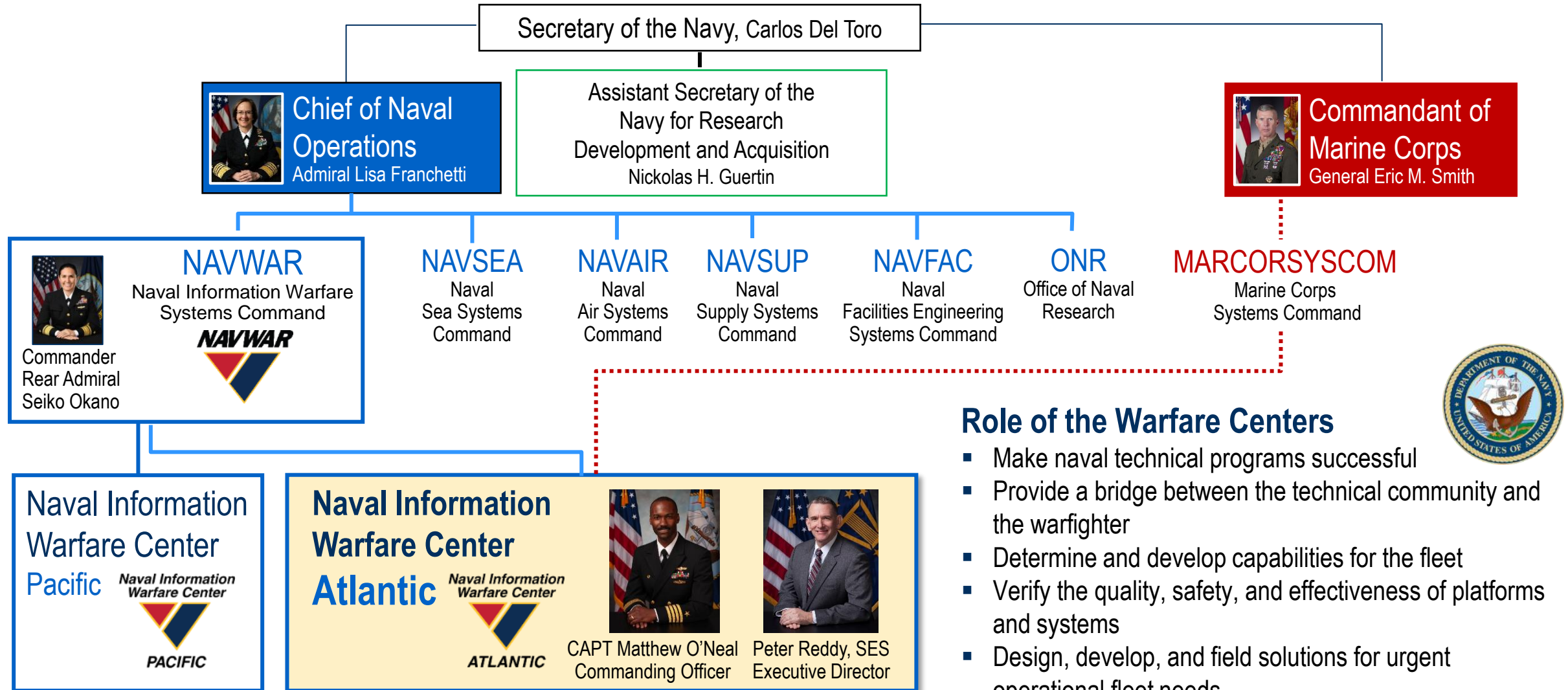
**NIWC Atlantic Mission:** Conduct research, development, prototyping, engineering, test and evaluation, installation, and sustainment of **integrated information warfare capabilities and services across all warfighting domains** with an emphasis on Expeditionary Tactical Capabilities & Enterprise IT and Business Systems in order to drive innovation and warfighter information advantage.

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<b>LOE 1: Deliver Naval Information Advantage and Warfighter Readiness</b>			<b>WARFIGHTING</b>	<b>Vision: Win the information War.</b>
1. Meet stakeholder needs delivering products & services	2. Drive work toward warfighter priorities	3. Drive future and emerging capabilities		
			Be the technical leader in warfighter information advantage.	
<b>LOE 2: Optimize Our Operations</b>			<b>FOUNDATIONS</b>	
1. Ensure competitive edge via managed costs	2. Quality acquisition at the speed of need	3. Process co-ownership and end-user focus		
			Effective internal ops that drive value through increasing speed and agility.	
<b>LOE 3: Adapting Workforce and Culture</b>			<b>WARFIGHTERS</b>	
1. Engaged workforce	2. Skilled and adaptable workforce	3. Warfighter focused		
			Engaged, skilled workforce with a warfighter focused ready culture.	

# We are a Navy Warfare Center

Principal research, development, test & evaluation assessment activities



## Role of the Warfare Centers

- Make naval technical programs successful
- Provide a bridge between the technical community and the warfighter
- Determine and develop capabilities for the fleet
- Verify the quality, safety, and effectiveness of platforms and systems
- Design, develop, and field solutions for urgent operational fleet needs



# Who We Are

## Addressing the Warfighter's top technology challenges

We are where America's naval forces are. In the theater of operations... forward-based, forward-deployed and globally positioned with America's warfighters.



### U.S.

- ★ Charleston, SC (CO)
- ★ Naval District Washington
  - Quantico (USMC focus)
- ★ Hampton Roads, VA (XO)
- ★ New Orleans, LA (OIC)
  - Tampa, FL (SOCOM focus)
  - Fayetteville, NC
  - Pax River, MD
  - Kings Bay, GA
  - Mayport, FL
  - Groton, CT

### Overseas

- Stuttgart, Germany
- Naples, Italy (OIC)
- Manama, Bahrain (OIC)
- Rota, Spain
- Okinawa, Japan

### 4,993 Total Workforce

4,865 Civilian  
128 Military  
~9,000 Contractors

### Total Facilities

113 bldgs., 2.4M SF



### Navy Working Capital Fund (NWCF) Business

- No Congressional appropriations
- Provides the agility to wane or surge as required for ongoing and emergent needs



**\$9.3B**

U.S. Economic Impact

**\$4.53B**

Total Obligation Authority

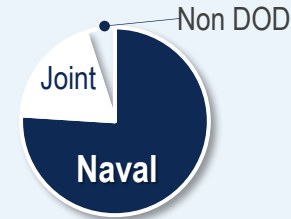
**50% (265)**

Small Businesses,  
89% Competition

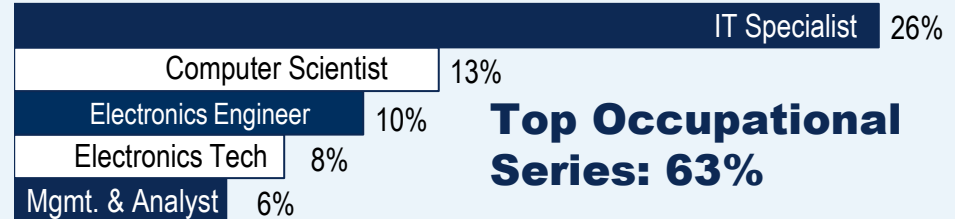
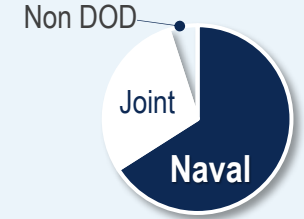


**Major Sponsors: 69%**  
NAVWAR & PEOs  
MARCORSYSCOM  
Defense Health Agency  
NAVSEA & PEOs  
DARPA

### Workforce FTEs



### New Orders



**Top Occupational Series: 63%**



22 SSTMs\*  
1% PhDs  
27% Masters  
45% Bachelors  
197 New Professionals  
93 Interns
























41% Prior Military  
15% Disabled Veterans



# Senior Civilian Leadership

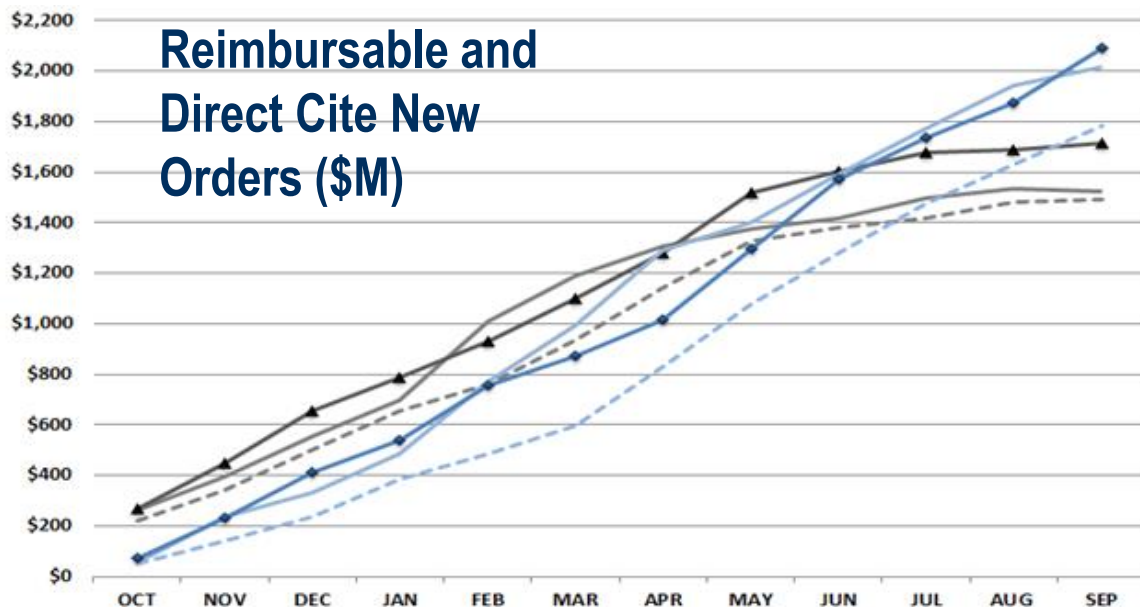
## Advancing the Scientific/Technical Areas for our Naval IW Warfare Mission

 <p><b>Executive Director (SES)</b> Mr. P. Reddy, SES, SSTM</p>	 <p><b>Executive for Network Centric Development and Integration/TD</b> Mr. A. Mansfield, SL</p>	 <p><b>Deputy Executive Director</b> Mr. K. Charlow, SSTM</p>	 <p><b>Fleet C4I and Readiness Department</b> Mr. G. Lancaster, SSTM</p>	 <p><b>Shore C2ISR and Integration Department</b> Mr. B. Carter, SSTM</p>	 <p><b>Expeditionary Warfare Department</b> Ms. A. Landreth, SSTM</p>
 <p><b>Enterprise Systems Department</b> Mr. K. Allen, SSTM</p>	 <p><b>7.0 Science and Technology Department</b> Dr. S. Huerth, SSTM, CTO</p>	 <p><b>4.0 Logistics &amp; Life Cycle Engineering</b> Ms. J. Shauger, SSTM</p>	 <p><b>5.0 Engineering</b> Mr. E. Fry, SSTM, CHENG</p>	 <p><b>5.2 Systems of Systems Engineering</b> Mr. D. Smoak, SSTM</p>	 <p><b>5.4 Software Engineering</b> Ms. K. Murphy, SSTM</p>
 <p><b>5.5 Communications &amp; Networks Engineering</b> Ms. A. Rideout, SSTM</p>	 <p><b>5.6 Data Science &amp; Analytics</b> Mr. R. Keisler, SSTM</p>	 <p><b>DSE Electro-magnetic Spectrum Operations (EMSO)</b> Mr. R. Taylor, SSTM</p>	 <p><i>Vacant</i> <b>5.9 Cybersecurity &amp; Mission Assurance Engineering (SSTM)</b></p>	 <p><i>Vacant</i> <b>DSE Software Modernization and Innovation (SSTM)</b></p>	 <p><i>Vacant</i> <b>DSE Quantum Information Warfare (SSTM)</b></p>
 <p><b>DSE for Assured Communications</b> Mr. C. Hunt, SSTM</p>	 <p><b>DSE C4ISR Mission Engineering and Analytics</b> Ms. A. Miller, SSTM</p>	 <p><b>DSE for Decision Intelligence</b> Mr. A. Tyson, SSTM</p>	 <p><b>DSE Rapid Prototyping &amp; Experimentation</b> Mr. G. Hays, SSTM</p>	 <p><b>DSE Autonomous C4ISR</b> Dr. L. Overbey, SSTM</p>	 <p><b>DSE Cyber Capability Development</b> Mr. M. Bartgis, SSTM</p>
 <p><b>PEO DES Technical Director</b> Mr. J. Fennelli, SSTM</p>	 <p><b>PEO MLB Technical Director</b> Mr. B. Wheler, SSTM</p>				

Senior Scientific Technical Manager (SSTM)  
Distinguished Scientist/Engineer DSE

# FY23 New Orders vs. FY24 Demand Signal

## Reimbursable and Direct Cite New Orders (\$M)



--- FY22 Reimbursable  
--- FY22 Direct Cite  
— FY23 Reimbursable  
— FY23 Direct Cite  
▲ FY24 Reimbursable  
◆ FY24 Direct Cite

### OTHER DoD:

- **DHA:** Cyber Security, Security Eng, Infrastructure Eng, Readiness Eng., Risk Mgmt.
- **Army:** Force Protection Solutions, Software Defined Radio, Enterprise Comm Infrastructure
- **Air Force:** Air Traffic Control, Modern Vehicle Fielding, Integrated National Intel Systems
- **DARPA:** JANUS, RACER, Messina/Carcosa
- **SOCOM:** Integrated National INTEL Systems, Special Ops Communications
- **DIA:** Joint Force Mission Systems

### OTHER FED:

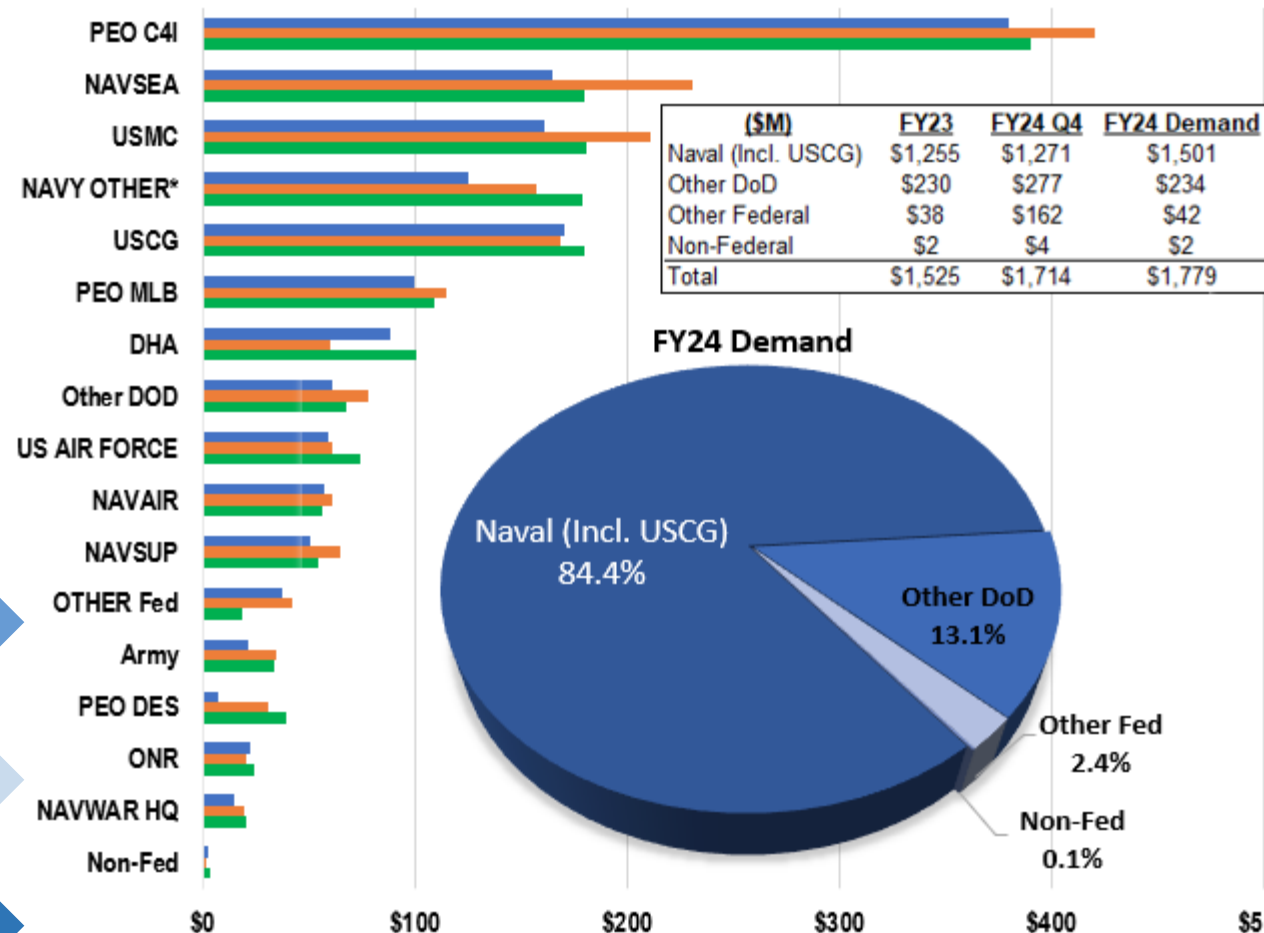
Secret Service: Presidential Joint Systems  
National Science Foundation: Polar Programs

### NON-FED:

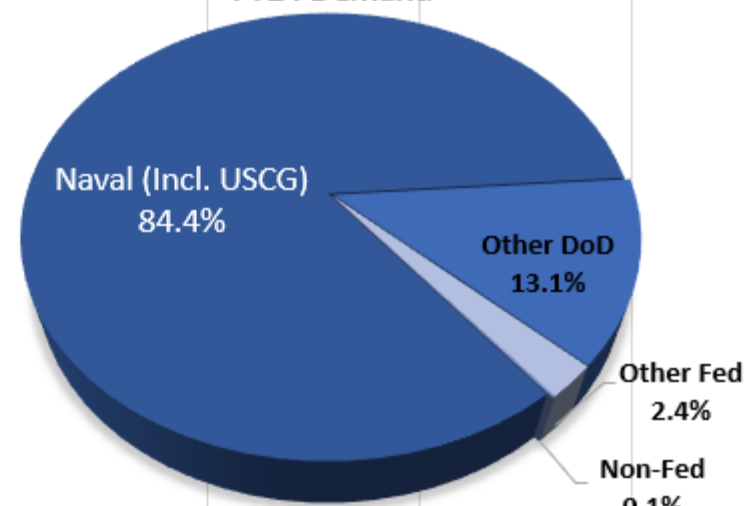
Various Universities: Cyber Security Services Provider  
Communications Companies: Unified Comms Certification

## Reimbursable Funding by Customer (\$M)

■ FY23 Orders ■ FY24 Demand ■ FY24 Q4



### FY24 Demand



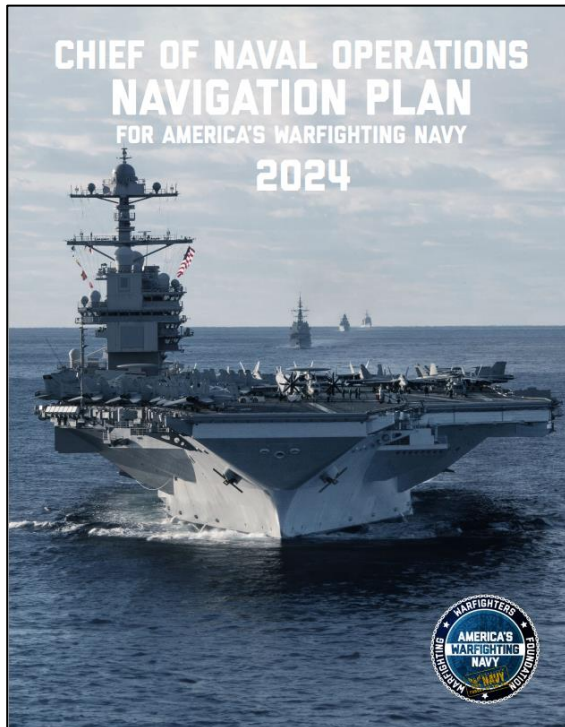
# Success is not achievable without readiness

## Resources

CNO Navigation Plan 2024  
([navy.mil](https://www.navy.mil))



**Admiral Lisa Franchetti**  
NAVPLAN focuses on readiness, capability, and capacity ... so the Navy can meet our missions in all phases of competition.



## Two Strategic Ends

- Readiness for conflict with the PRC by 2027
  - Enhancing long-term advantage

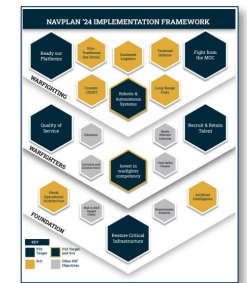
## Two Central Ways

- Implement Project 33
  - Expand the Navy's contribution to the Joint Warfighting ecosystem.



**Project 33: How the Navy will make strategic gains in the fastest time with resources we influence by 2027.**

## Navy Implementation Framework (NIF)



**5+4** Core Navy initiatives/targeted investments to balance capability at the right time, scale and cost.

## 5 Key Capabilities

- Long-Range Fires** — how we shoot
- Counter-C5ISR** — how we maneuver
- Terminal Defense** — how we defend
- Contested Logistics** — how we sustain
- Non-Traditional Sea Denial** — how we scale

## 4 Key Enablers

- Live, Virtual, and Constructive** — how we train
- Navy Operational Architecture** — how we communicate
- Artificial Intelligence** — how we outthink
- Robotic Autonomous Systems** — how we innovate



# Project 33: How the Navy will make strategic gains in the fastest time with resources we influence by 2027.

## IMPLEMENTING PROJECT



## TARGETS

OUR NORTH STAR: READINESS FOR SUSTAINED HIGH-END JOINT AND COMBINED COMBAT BY 2027

## OUR NORTH STAR: Readiness for Sustained High-End Joint and Combined Combat by 2027

### Seven Targets

#### Ready the Fleet

Achieve and sustain 80% combat surge ready ships, aircraft, and submarines.

#### Operationalize robotic autonomous systems

Move proven systems into the hands of the warfighters.

#### Fight by Maritime Operations Centers

Resource our MOCs as the weapons systems they are.

#### Recruit and retain talent

Man deployers to 95% of billets authorized, reach 100% recruiting shipping fill.

#### Deliver quality of service

Improve unaccompanied housing, eliminate required living on homeport ships.

#### Invest in high-end training

Raise warfighter competency with Live, Virtual, Constructive scenarios.

#### Restore critical infrastructure

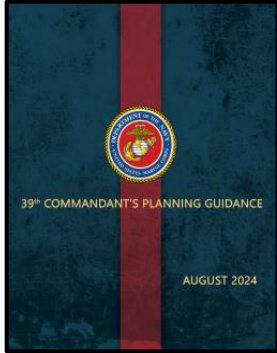
Prioritize infrastructure directly supporting operational readiness in the Pacific



# Commandant of Marine Corps

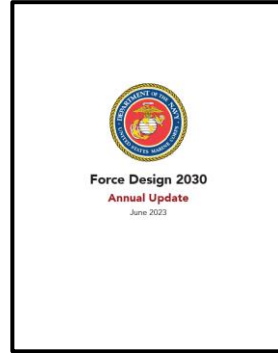


**General Eric Smith**  
Planning Guidance focuses on specific challenges requiring near-term action for the most complex and dangerous threats.



**Planning Guidance** so we can fight and win today and set conditions to win in the future.

- Balancing Modernization with Current Operational requirements
- Naval Integration and Organic Mobility
- Critical Capabilities and Future Investments
  - Contested Logistics and Littoral Mobility
  - Enabling Joint & Coalition C2 & Kill Webs
  - Long-Range Precision Fires



**39th Commandant's Planning** strategic direction for the Marine Corps.

**Force Design 2030** remains the aim point and focuses on specific challenges requiring near-term action.

**Force Design the vehicle to remain lethal on any battlefield** while optimized against the pacing challenge. We are in perhaps the most difficult phase – implementation and we can not slow down.

- Divest to Invest
- \$12B re-allocation
- M&S/Wargaming/Exp
- Stand In Force
- Naval Integration
- IOC 2023/FOC 2030

# Accelerating via Rapid Prototyping and Experimentation

Developing, adopting, integrating, and testing capabilities for manned, unmanned, and autonomous missions in experiments, exercises, and toward operationalization.

## ■ Technical areas

- Data repositories and architectures
- Command and control
- Comms and networks
- Computer vision
- Mission autonomy
- RF/Cyber/EW
- Operational Experimentation
- System of Systems Interoperability



NAVCENT Task  
Force 59 (TF-59)



Disruptive Capabilities Office  
(DCO) / OPNAV N9B



Silent Swarm / Southern Lightning



Hybrid Fleet South



Mission Autonomy Proving Ground



MADIS



System of Systems Naval  
Integration Experiment (SoSNIE)



PMS 420 C3



NAVEUR TF-66



NextGen Unmanned Operations Center



DARPA Autonomy



*Naval Information  
Warfare Center*



*ATLANTIC*

# Questions