

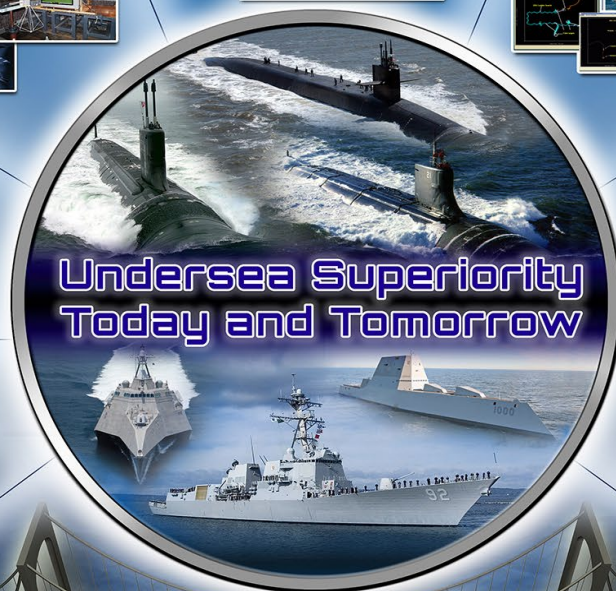
Naval Undersea Warfare Center

Division Newport

Captain Chad F. Hennings, USN
Commanding Officer
NUWC Division Newport



Marie Bussiere, SSTM
Technical Director
NUWC Division Newport



USW ELECTROMAGNETIC SYSTEMS

USW PLATFORMS & PAYLOAD INTEGRATION

USW MISSION ENGINEERING AND ANALYSIS

USW COMBAT SYSTEMS

RANGES, ENGINEERING, & ANALYSIS

SENSORS AND SONAR SYSTEMS

USW WEAPONS, VEHICLES, AND DEFENSIVE SYSTEMS

Science & Technology
Development
Acquisition Support
Fleet Support



UNDERSEA SUPERIORITY: TODAY AND TOMORROW

▸ Mission:

We advance the state of the art in undersea warfare, ensuring maritime dominance through our research, development, and Fleet support.

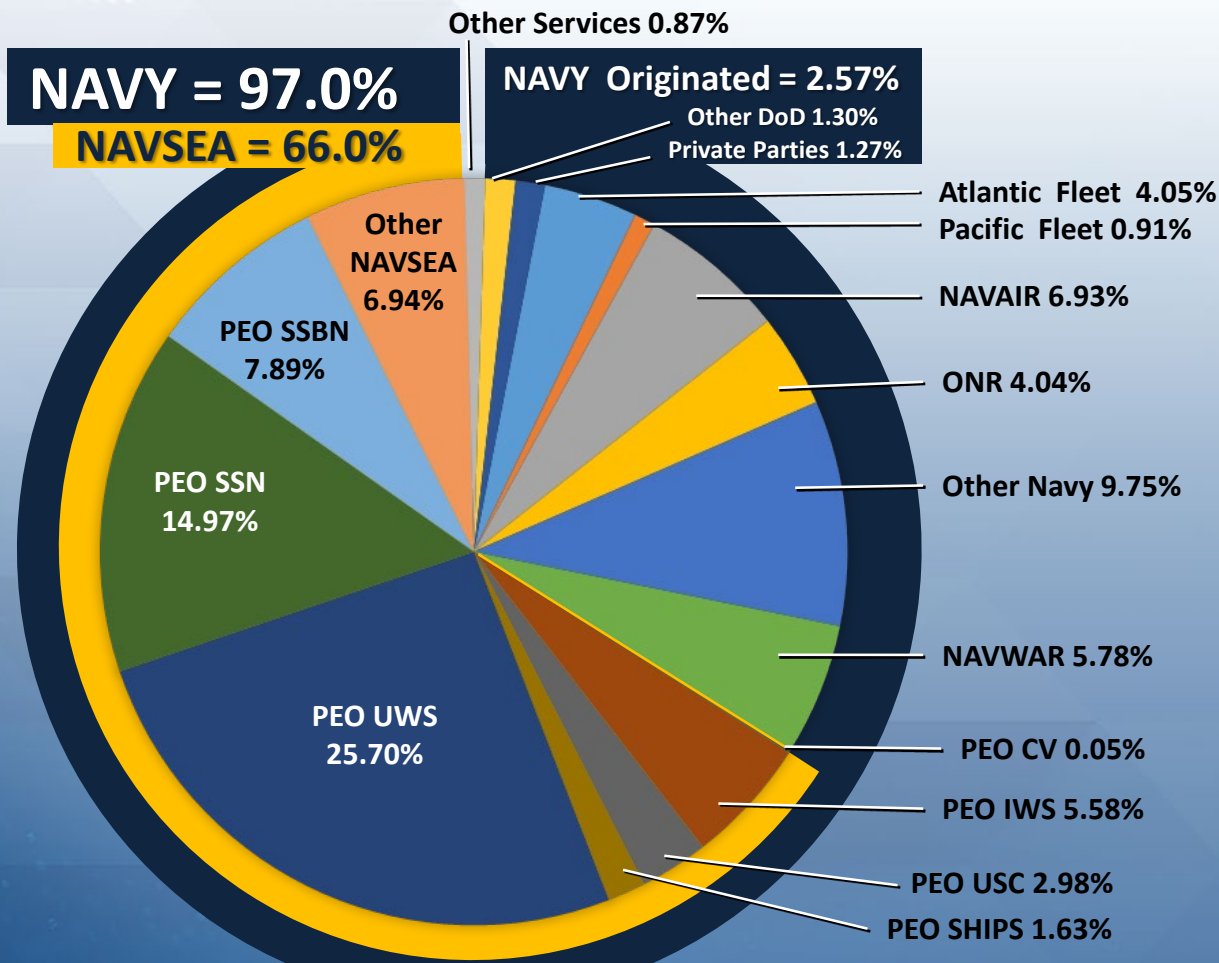
▸ Strategic Goals:

- Fleet Readiness
- Next-Generation USW Systems
- Workforce Excellence
- Excellence in Technical and Business Processes
- Leading-Edge USW Infrastructure



NAVAL UNDERSEA WARFARE CENTER
DIVISION NEWPORT

NUWC Division Newport: Customers – All Funding



Our FY23 Customers
\$1,598M

Navy Working Capital Fund Activity

- Not a congressional line item
- Customers choose the Warfare Centers
- NUWC is accountable for efficient delivery of products and services

Customer Base

- Fleet
- Program and resource sponsors
- Scientific sponsors
- Intelligence community
- Defense industry
- Non-defense industry
- Foreign Navies

Full Spectrum Provider: Science & Technology to In-Service Engineers



NUWC Division, Newport



COMMANDING OFFICER

CAPT Chad F. Hennings
USN 00



TECHNICAL DIRECTOR

Marie Bussiere, SSTM
TD

CHIEF STAFF OFFICER *Executive Officer*

LCDR Daniel Miller CSO

OFFICER IN CHARGE *Detach AUTECH*

LCDR Jeremy S. Reed 05

COMPTROLLER

Adam Macksoud 01

OFFICE OF COUNSEL

Richard Dale 00L

CONTRACTS

Stephen Lamb 02

CORPORATE OPERATIONS

Vicki Comeau 10

SMALL BUSINESS DIR

Sarah Heard 00K

COMMAND REVIEW & INVESTIGATIONS

Daniel Benson 00N

DEPUTY TECHNICAL DIRECTOR

John Babb, SSTM TDB

CHIEF TECHNOLOGY OFFICER

Dr. Jason Gomez, SSTM 00T

CHIEF ENGINEER

Dr. Joseph Gabriel 00E

QUALITY MANAGEMENT

Anthony Stradone 00Q

DEPUTY BUSINESS DIRECTOR

Dawn Vaillancourt 0BD

CUSTOMER ADVOCATE

Jay Melillo 0CA

STRATEGIC PLANNING

Mark Dalton 00X

Technical Departments

SENSORS AND SONAR SYSTEMS

Patricia Eno, SSTM 15

USW COMBAT SYSTEMS

Mike Violette (acting) 25

USW ELECTRO- MAGNETIC SYSTEMS

Darlene Sullivan, SSTM 34

USW PLATFORMS AND PAYLOAD INTEGRATION

Rebecca Chhim, SSTM (acting) 45

USW MISSION ENGINEERING AND ANALYSIS

Denise Brown, SSTM 60

RANGES, ENGINEERING AND ANALYSIS

Eric Spigel, SSTM 70

USW WEAPONS, VEHICLES AND DEFENSIVE SYS

Hector Lopez, SSTM 85

Senior Technical Reps Aligned to Departments

RDT&E DIGITAL TRANSFORMATION EXECUTIVE

Marie Bussiere, SSTM TDB

USW PROTOTYPING

Christopher DelMastro, SSTM 00T

OPERATIONAL & INFORMATION SCIENCE

Dr. Thomas A. Wettergren, ST 00T

UNDERSEA TACTICAL STEALTH SYSTEMS

Dr. Robert M. Koch, ST 00T

USW TACTICAL OCEANOGRAPHIC SCIENCES

Dr. Andrew Greene, ST 00T

ACOUSTIC SIGNAL PROCESSING

David Pistacchio, ST 00T

UNDERSEA SENSORS TECHNOLOGY

Dr. Thomas Stottleyer, SSTM 5T

SUBSEA/SEABED WARFARE

Vacant, SSTM 15T

CYBERSECURITY USW COMBAT SYS INTEGRATION

Vacant, SSTM 25T

USW COMMAND AND CONTROL

Vacant, SSTM 25X

USW ELECTROMAGNETIC MANEUVER SYSTEMS

Robert Mayo, SSTM 34C

UNDERSEA COMMUNICATIONS

Vacant, SSTM 34T

USW UNMANNED SYSTEMS & AUTONOMOUS BEHAVIOR

Rich Bashour, SSTM 45

NON-TRADITIONAL SENSING & NON-ACOUSTIC UNDERSEA WARFARE

Brad Doyle, SSTM 85T

NEXT GEN WEAPONS AND DEFENSIVE SYSTEMS

Vacant, SSTM 85T

Naval Undersea Warfare Center Division Newport

Vision: Undersea Superiority Today and Tomorrow



Surface Ship USW Offensive and Defensive Systems

Off-board and Distributed USW Systems



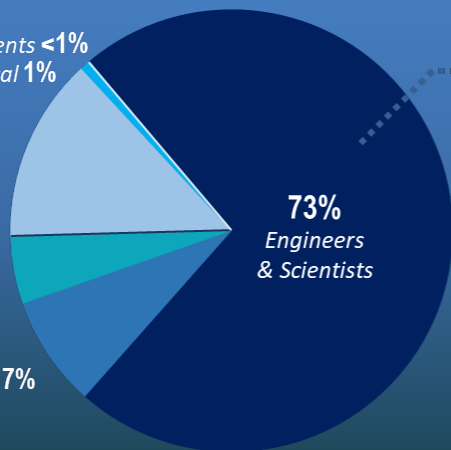
Our People

Students <1%
Admin Support / Clerical 1%

Professional Admin 13%

Wage Grade <1%
Information Technology 6%

Technician 7%



36%

Engineers & Scientists have advanced degrees

5%

PhDs

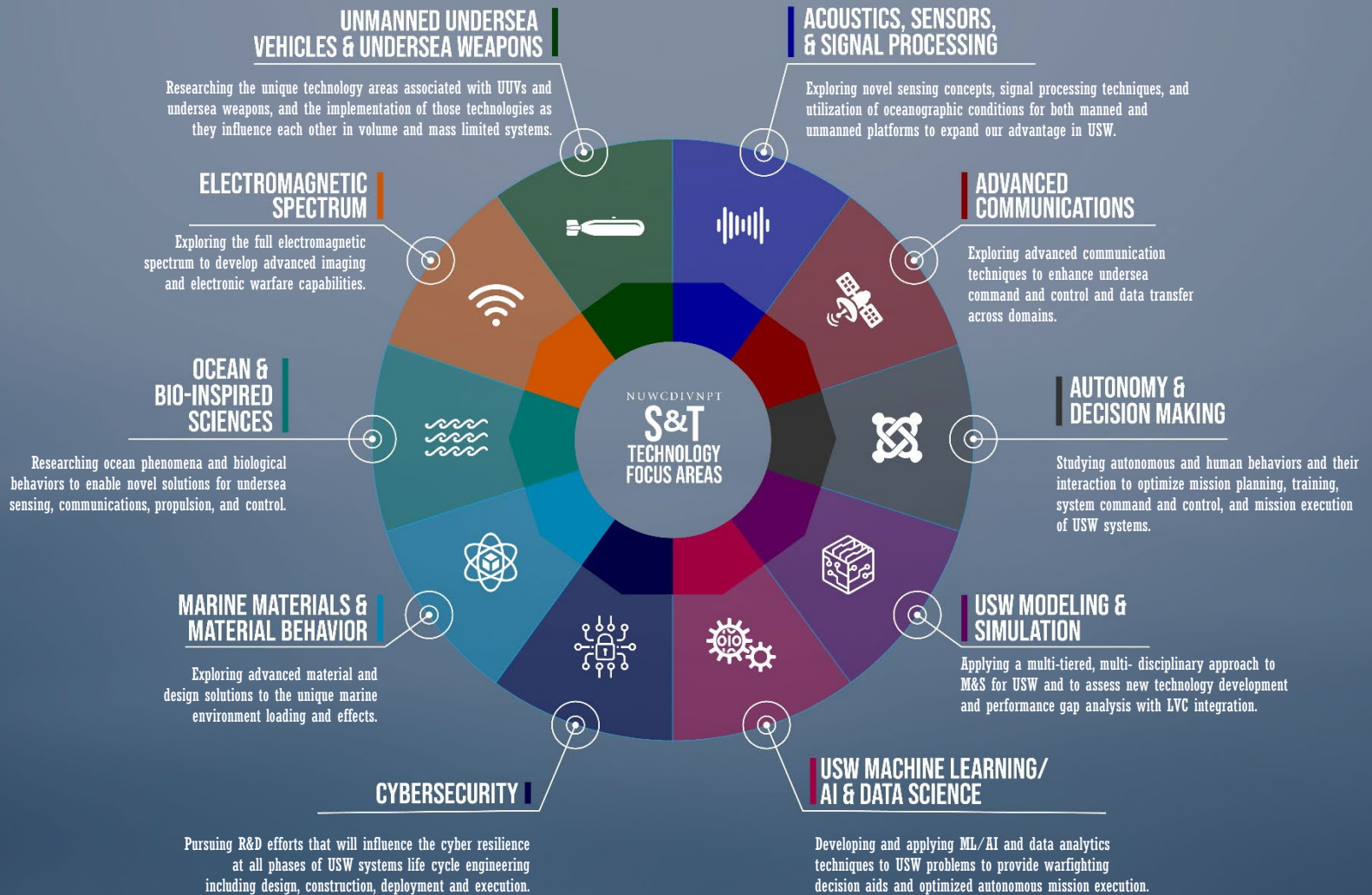
31%

Masters

An Award Winning Workforce
72 Wins in the External Award Program in FY23

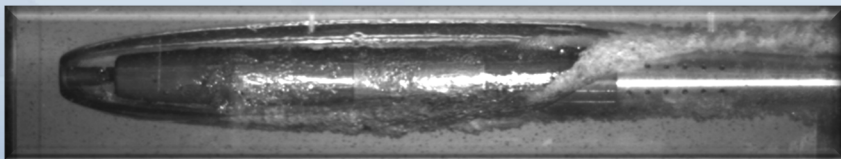
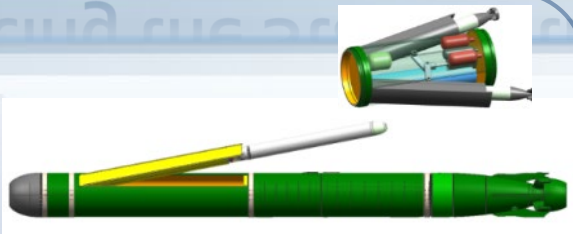


NUWC Division Newport: S&T Focus Areas

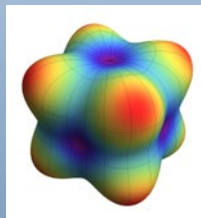
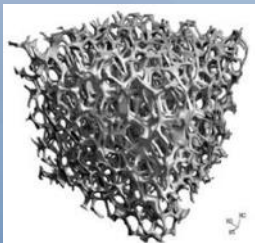
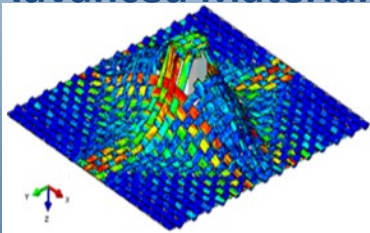


NUWC Division Newport: Advancing the State of the Art in USW

Weapons & Vehicles

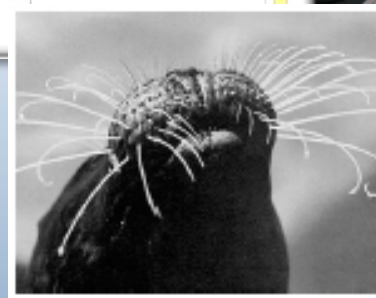
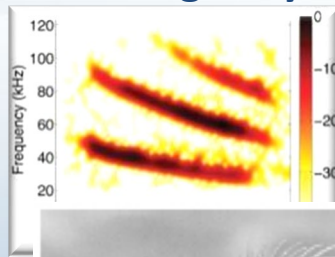


Advanced Materials



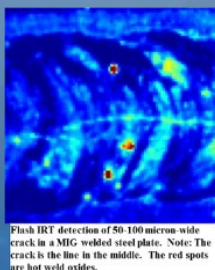
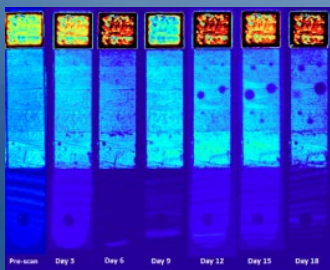
Biologically Inspired

Sensors



Marine Mammal Behavior

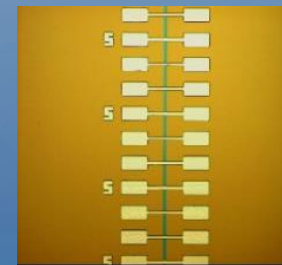
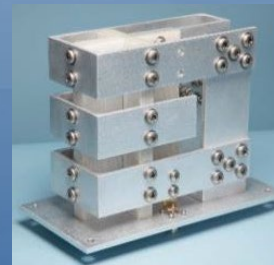
Non-Destructive Evaluation



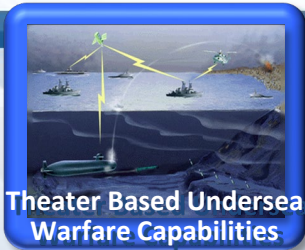
Lasers & Optics



Antennas



NUWC Division Newport: Contributing to the Navy After Next



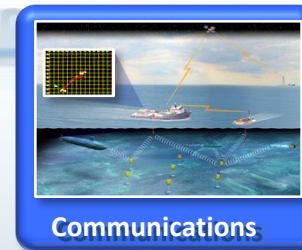
- Wargames
- Innovation Events



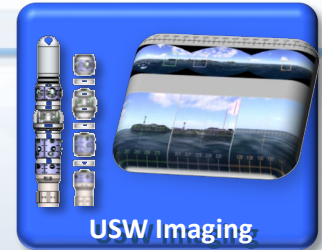
- Distributed and autonomous sensing



- Transformational weapons integration that expand mission



- Stealthy communications that support interoperability



- Multifunction masts combining communications, EW, and Imaging



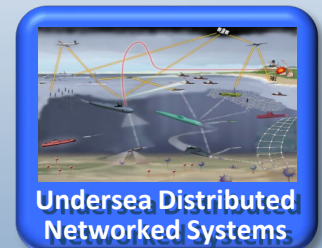
- Data driven decision making using advanced reasoning, modeling, and visualization
- Adaptable, CYBERSAFE systems

✓ **Enhance Strategic Deterrence**

✓ **Integrate Combat Power with the Joint Force**

✓ **Enable All-Domain Maneuver Warfare**

Commander's Intent 4.0 - United States Submarine Force
and Supporting Organizations - June 2022



- Multi-phenomenology sensor field
- Coatings for biofouling & anti-corrosion



- Indiscriminate target tracking
- Remote support capabilities
- Non-traditional sensing
- Marine mammal behavior



- Long endurance power systems
- Multi-vehicle collaboration
- Biomimetic vehicles



- Modular masts
- Multi-spectral imaging, Panoramic imaging
- Advanced human machine interface



- Impactful analysis for evolving Naval Strategies



- Shorter kill chains
- Adaptive systems and technologies that outpace the threat
- Virtual environment for Modeling & Simulation and training

NUWC Division Newport: Cybersecurity End-to-End Evaluation



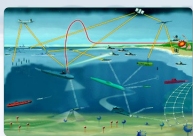
SEA05N: Undersea Warfare Systems Engineering Technical Warrants



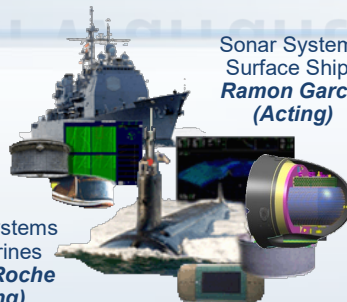
USW Defensive Systems
Steven Oberhelman
(Acting)



Exterior Communications
and Antenna Systems
Submarines
Matthew McKeever (Acting)



Distributed Undersea
Sensor Systems
John Oliveira



Sonar Systems
Surface Ships
Ramon Garcia
(Acting)

Sonar Systems
Submarines
Gerald Roche
(Acting)



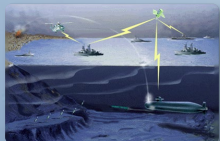
Waterfront CHENG –
Keyport Torpedo Depot
Paul Taatjes



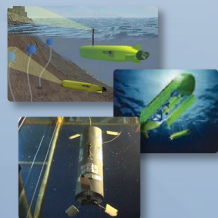
Imaging, EM,
EO, and EW Systems
Submarines
Daniel Corbett
(Acting)



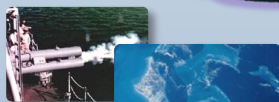
Combat and Weapons
Control Systems
Submarines
Thomas O'Malley
(Acting)



USW Combat and
C2 Systems Integration
Keith DeRuiter
(Acting)



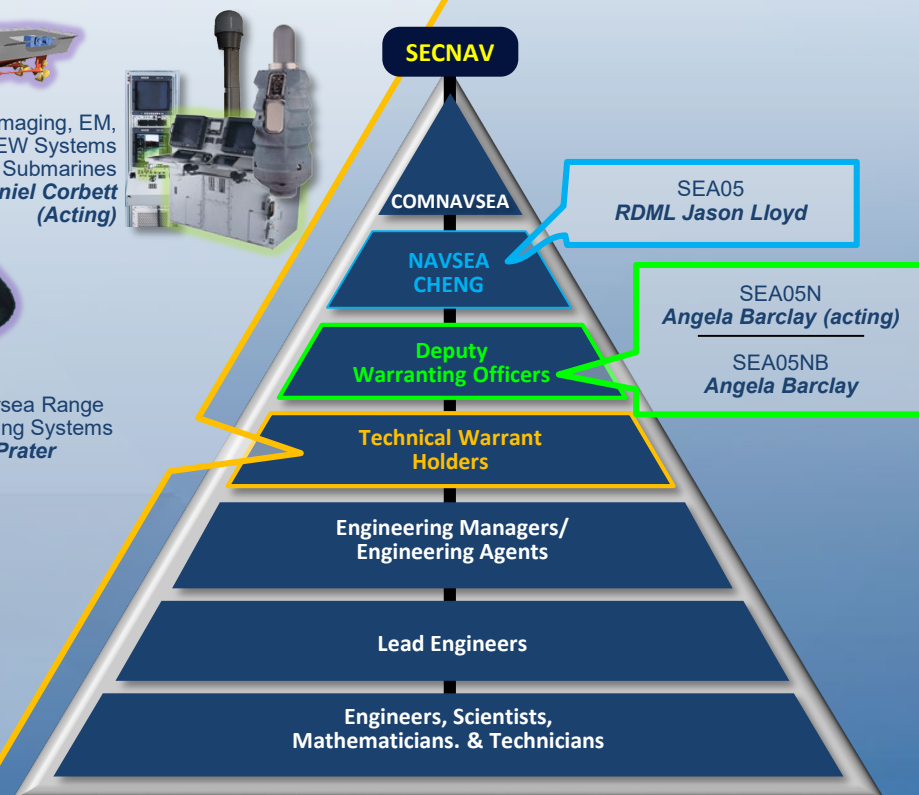
Unmanned
Underwater Vehicles
Michael Grant



Undersea Range
Tracking Systems
Neal Prater



Torpedoes
Scott Marcellino (Acting)



Foremost Technical Authority for USW



NUWC Division Newport: Collaboration Fuels Global USW Innovation

DoD Partners



Educational Partnerships

31 Educational Partnership Agreements (EPA)



Global Presence/Field Team

202 Reps Worldwide

- **188** at Detachments/On-Site Offices and In-Service Engineering Agents
- **12** Field Team Reps

Industry Partners CRADA SBIR/STTR



Demo/Validation, Production

- 65 Active Cooperative Research & Development Agreements (CRADA)
- 152 Small Business Innovation Research (SBIR)/Small Business Technology Transfer (STTR) TPOCs
- 42% Contracts to Small Businesses

International Cooperation

- 7 S&T Project Arrangements
- 93 FMS Cases in 23 Countries
- 2 Armament Cooperation Programs
- 4 Information Exchange Agreements
- The Technical Cooperation Programs
- 4 Cooperative Research and Development Agreements
- 7 Work for Private Parties
- 5 Memorandum of Understandings

International Components





NUWC Division Newport: Global Presence

Detachments (Det), On-Site Offices (OSO), In-Service Engineering Agents (ISEA) and Field Team

194
reps worldwide

JAPAN (1)
COMSEVENTHFLT

SINGAPORE (1)

WASHINGTON (17)

*Det Bangor, OSO Keyport,
Port Angeles*

CALIFORNIA (1)

HAWAII (8)

*COMSUBPAC, COMPACFLT,
NSTCP (Det Newport)*

NEW HAMPSHIRE (3)

PNSY

CONNECTICUT (25)

*OSO Groton, OSO Niantic,
NUWC NLON, SLC, UWDC, EB
Groton, PMS 397*

NEW YORK (1)

OSO Dresden

MARYLAND (1)

NAS Patuxent River

PENTAGON, D.C. (12)

WNY

VIRGINIA (47)

*Det Manassas, OSO Norfolk, OSO Williamsburg,
OSO Virginia Beach, NGNN Shipyard, NWS
Yorktown, OPNAV*

GEORGIA (11)

OSO Kings Bay

FLORIDA (48)

*AUTEC-Det West Palm Beach, OSO
Mayport, OSO Okahumpka*

UK (1)

Dstl (ESEP) – Portsmouth UK

GERMANY (4)

ITALY (2)

COMSUBGRU8

SPAIN (1)

182 *Det, OSO and ISEA*

12 *Field Team reps*

Our Forward Presence Enables Rapid Response to Fleet Needs

NAVSEA Warfare Centers

Warfare Centers Board of Directors

Division Technical Directors



CAPT Thomas J. Dickinson
Commander, NUWC



Dr. Martin Irvine Jr., SES
Executive Director Warfare Centers



Michael Slater (Acting)
NUWC Keyport



Dr. Angela Lewis, SES
NSWC Crane



Larry Tarasek, SES
NSWC Carderock



Nigel Thijs, SES
NSWC Philadelphia



Marie Bussiere, SSTM
NUWC Newport



Ashley G. Johnson, SES
NSWC Indian Head



Jeffrey Koe, SES
NSWC Port Hueneme



Dianne M. Costlow-Owens,
SES, NSWC Corona

Keyport, WA



Bill Carlson (Acting)
CAPT Jon Moretty
2,437 employees FY19

Crane, IN



Dr. Angela Lewis, SES
CAPT Thomas (Duncan) McKay
3,721 employees FY19

Carderock, MD



Larry Tarasek, SES
CAPT Matthew Tardy
2,431 employees FY19

Philadelphia, PA



Nigel Thijs, SES
CAPT Joseph Darcy
2,748 employees FY19

Newport, RI



Rebecca Chhim, SSTM (Acting)
CAPT Chad F. Hennings
3,508 employees FY19

Indian Head, MD



Ashley G. Johnson, SES
CAPT Scott H. Kraft
2,286 employees FY19

Port Hueneme, CA



Jeffrey Koe, SES
CAPT Tony Holmes
2,561 employees FY19

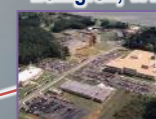
Corona, CA



Dianne M. Costlow-Owens, SES
CAPT Khary Hembree-Boy
1,917 employees FY19



Dahlgren, VA



Dale W. Sisson, Jr. SES
CAPT Stephen Plew
4,786 employees FY19

Panama City, FL



Dr. Peter Adair, SES
CAPT David N. Back
1,563 employees FY19



Dale W. Sisson, Jr. SES
NSWC Dahlgren



Dr. Peter Adair, SES
NSWC Panama City