
Sensors and SONAR Systems Department

NUWC Division Newport, Code 15

NCMA RI Chapter Industry Day

16 October 2024

Julie Henry, Sensors and SONAR Systems
Deputy Department Head (acting)

Sensors and SONAR Systems Department

We Advance Timely, Innovative, Integrated, Next Generation Solutions to Maintain FLEET UNDERSEA SUPERIORITY

PEOPLE



ISEA
In-service
Engineering

PRODUCTS AND CAPABILITIES



*We Provide
Sound Solutions
for the
Warfighter*

S&T
Science and
Technology

PEO-SUBS

PEO-AIR

OSD

ACADAMIA

DARPA

NAVY WARFARE CENTERS

NAVSEA PEO USC

NAVSEA PEO UWS

NAVSEA PEO SHIPS

THE FLEET

NAVSEA PEO IWS

ONR

ONI

SPONSORS, STAKEHOLDERS, AND PARTNERS

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Sensors & SONAR Systems Department



Sensors & SONAR Systems Department

15 Department Head

15B Deputy Department Head

15T Director of Undersea Sensing Technologies

1501 Director, Business Operations

159 Director, Programs & Contracts

Department Contract Manager (DCM)

15B Customer Advocacy

- Surface Ship USW
- Towed Systems, Sensors and Acoustics
- Maritime Surveillance

1502 Director, Information Technology

15E Director, Engineering

Chief Systems Analyst

151 Science and Technology Division

152 Advanced Concepts Division

153 Sensors and Arrays Division

154 Submarine Systems Division

155 Surface Ship and Aviation Systems Division

1511 Automation Algorithm Development

1521 Developmental Systems Engineering

1531 Underwater Sound Reference

1541 Submarine and Surveillance Systems Engineering

1551 Surface and Aviation Systems Engineering

1512 Devices, Sensors and Materials R&D

1522 Prototype Development

1532 Towed and Deployed Arrays Engineering

1542 Systems Analysis and Passive Systems Engineering

1552 Active Systems Engineering

1513 Signal Processing Algorithm Development

1523 Technology Integration

1533 Hull Arrays and Distributed Sensors Engineering

1543 Submarine and Surveillance Systems Integration

1553 Surface and Aviation Systems Integration

1554 Surface and Aviation Test, Evaluation and Analysis

1555 Surface and Aviation Training, Logistics and Fleet Support

1534 Handling Systems Engineering

1544 Submarine and Surveillance Test, Evaluation and Analysis

1545 Submarine and Surveillance Training, Logistics and Fleet Support

1535 Fleet Sensors and Cables Engineering

Over 600 Highly-Qualified Engineers, Scientists, Technicians, and Staff Professionals

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Service Cost Centers

Towed Array Handler Equipment Facility (TAHEF)

- Center of Excellence for overhaul of Towed Array Handler Equipment
- Registered to ISO 9001-2000 and aligned with the Towed Systems ISEA Organization
- Land-based test facilities for 276 and 542 systems



Naval Array Technical Support Center (NATSC)

- Established as a result of a NAVSEA initiative to integrate all Towed Array and Tow Cable Repair Level Activity into a consolidated facility
- Responsible for the repair and refurbishment of Surveillance Towed Arrays (SURTASS) A180R and TL-29A; Surface Ship Towed Array TB-37; and Submarine Towed Arrays TB-16, TB-29A and TB-34
- Responsible for the manufacturing of TB-16, AN/SQR-19, TB-34 and SURTASS Tow Cables



Underwater Sound Reference DIVNPT (USRD)

- Rapid array and sensor Calibration/Certification Response Center to accommodate urgent fleet requirements
- Navy's principal Activity for N.I.S.T. traceable calibration of Tactical Towed Arrays including developmental Towed Arrays and Submarine and Surface Ship coatings and hull sensors
- Towed Array calibrations include platforms: TB-16 (E,F,G), TB-29, 29A, TB-34, TB-37 and new Fiber Optic Arrays; and Receive Sensitivity Calibration



Strategically Located Offsite and Intermediate Maintenance Activities (IMA) Personnel



Our Resources and Expertise Support National and Foreign Military Efforts

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C15 Strategy Map

NUWCDIVNPT
OPERATING
PRINCIPLES

Teamwork

Fleet/Customer Focus

Technical & Business
Excellence

Align with NUWCDIVNPT Strategic Guidance

NUWCDIVNPT
STRATEGIC
FOCUS AREAS

Our People

Technical & Business
Readiness

Next Generation
Undersea Warfare

CODE 15 VISION: *Sound Solutions for the Warfighter*

CODE 15 MISSION: Conduct full spectrum research & development, prototyping, engineering, integration, training, test & evaluation, logistics, and acquisition support for sensors and SONAR systems in undersea warfare (submarine, surveillance, surface ship, aviation and associated areas of irregular warfare) for undersea superiority today and tomorrow.

CODE 15
GOALS

1.0 Maintaining Acoustic
Superiority For The Fleet Of
Today And Tomorrow

2.0 Create The Acoustic
Superiority Workforce Of
The Future

3.0 Develop The Acoustic
Superiority Facilities/
Infrastructure

4.0 Acoustic Superiority
Wartime Readiness

CODE 15
NEAR-TERM
TECHNICAL
FOCUS

- Distributed Sensing and SONAR Systems
- Cloud Computing/Infrastructure Management
- Non-Traditional Sensing Technologies
- Foreign Military Sales

- Warfighter Performance
- System Commonality
- System Life-Cycle
- Science and Technology

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Leadership Thoughts and Outlook

- **Concerns- Thoughts from the Helm**

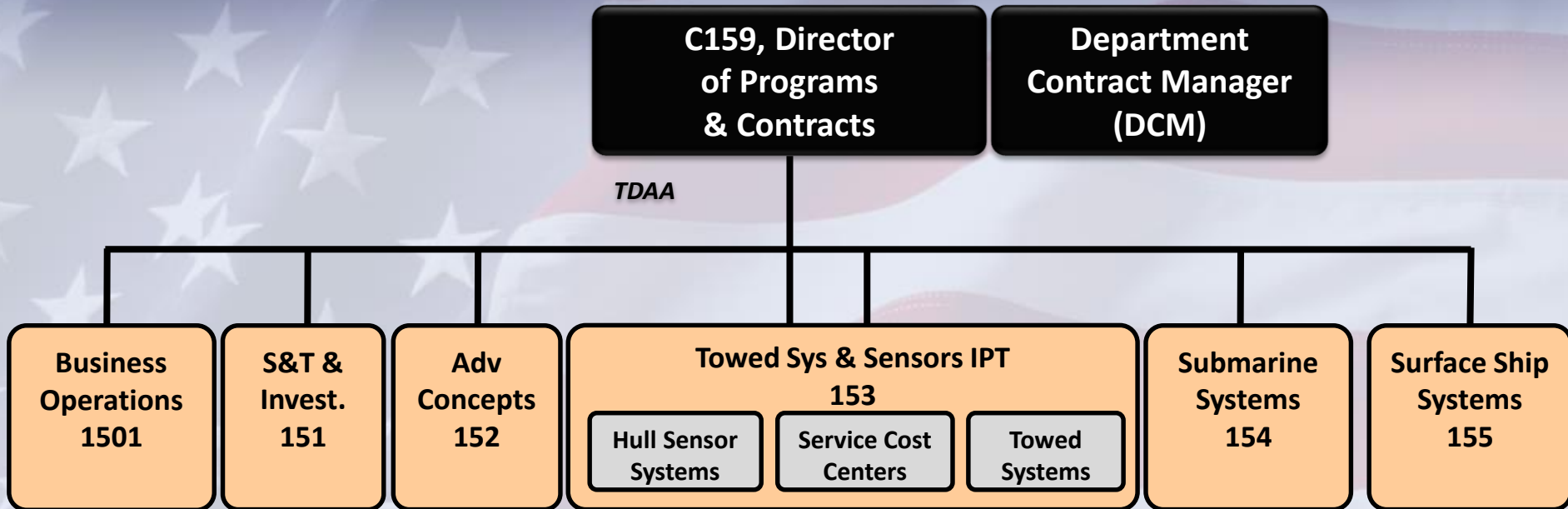
- Demand for our products and services has never been higher
- We are experiencing large numbers of retirements and we are hiring mostly new engineers to replace
- Senior engineers and scientists are at a premium

- **Outlook Challenges or Changes regarding Product Line, Acquisition, etc**

- Growing demand for our Depot products (technician support)
- Growing demand for Sonar Systems analysis
- Heavy workload in our ISEA areas- particularly wet end and ARCI
- Heavy workload in Sonar T&E- particularly surface ship and submarine

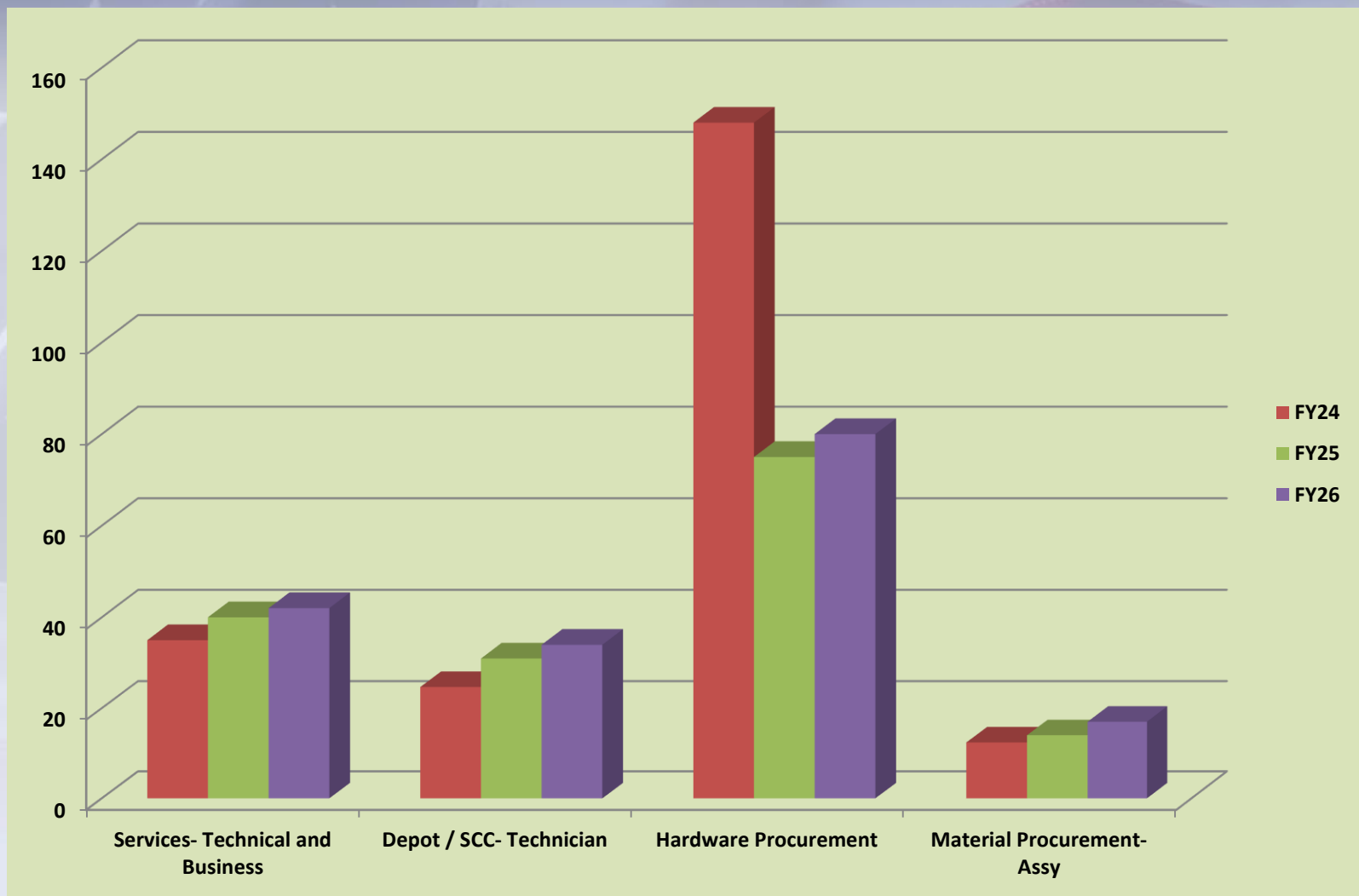
Contracting Status

Contract Management Structure



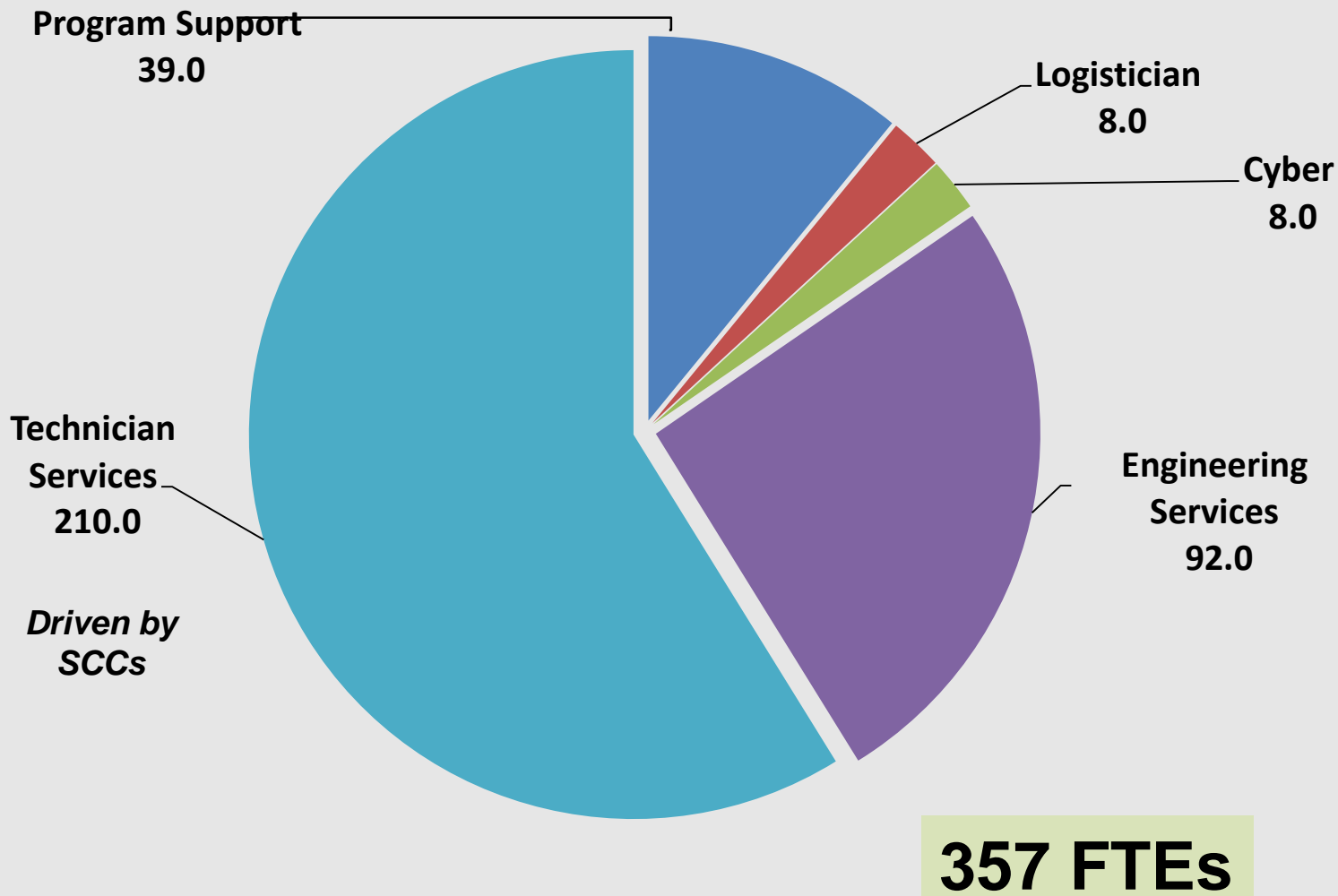
- To manage our procurement workload within Code 15, we have established the Contracts Management IPT
- The Contracts Management IPT consists of supervisors, project leaders, and acquisition professionals from across the entire Sensors and SONAR Systems project portfolio to promote teamwork, knowledge sharing, and cross-department communications

Projected Contracting (\$M)



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Services Outsourced By Skill (FY 24)



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Major Code 15 Contractors

GVI		Towed Array Handler Equipment Facility (TAHEF) Maintenance, Repair & Overhaul
Leidos		Naval Array Technical Support Center (NATSC)
Hydroacoustics Inc.		HLF-1 Services & Refurb
Leidos		Towed Array Intermediate Maintenance Activity (IMA)
SyQwest / Ultra / Massa / USS		Sensors, Hydrophones & Transducers
MRC		Wet End Engineering, Test & Evaluation
MIKEL		Dry End System Eng., Test & Evaluation
INDUS		Business Operations Support
SEACORP		Trainers, Training & Human Factor Eng.
L-3 Chesapeake Sciences Corp		Towed Array Integrated Product Team Telemetry (TAIPT)
Canadian Rolls Royce		OK-410

Code 15 Projected Contracts

	Summary of Contract Scope	Contracting Method: (SeaPort, IDIQ, etc.)	Expected RFP release	Follow On?
TR-302/TR-355 Transducer Production	Establish a 5-year FFP IDIQ contract for TR-302/TR-355 transducer production.	FFP IDIQ	TBD	N66604-18-D-D800: Massa Products Corporation
NATSC Follow On	Naval Array Technical Support Center Follow On	Cost-Reimbursement	FY24 Q3	N6660421DA000: Leidos
15 - HFSA Fiber Optic Receive Cables	Establish a five year IDIQ contract for HFSA Fiber Optic Cables	FFP IDIQ	FY25 Q1	N6660419DB900: TE CONNECTIVITY SEACON
15 - DT-511/DT-592 Hydrophones Production Contract	Establish IDIQ for DT-511/DT-592 Hydrophones	FFP IDIQ	FY25 Q2	N6660419DE900: UNDERSEA SENSOR SYSTEMS, INC.
15 - DT-574 Series Hydrophones Production Contract	Establish a 5 year IDIQ for DT-574 series hydrophones production	FFP IDIQ	FY25 Q2	N6660419DF900: MASSA PRODUCTS CORPORATION
15 - DT-100 Staves Production	Build-to-Print requirement for production DT-100 Staves.	FFP IDIQ	FY25 Q1	N6660418DF800: SyQuest
15 - TR-317 Transducers, TR-353 Transducers & TR-353 Installation Kits Production	Establish 5 year IDIQ contract for the production of TR-317 transducers, TR-353 transducers, and installation kits for TR-353 transducers.	FFP IDIQ	TBD	N6660421DC100: Ultra Electronics

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Code 15 Projected Contracts

	Summary of Contract Scope	Contracting Method: (SeaPort, IDIQ, etc.)	Expected RFP release	Follow On?
15 - Telemetry Follow On Contract	This contract action is to allow the Naval Array Technical Support Center and associated programs to continue to purchase telemetry parts to repair and modify towed arrays for continued Fleet use on submarine, surface and surveillance ships.	FFP IDIQ	FY25 Q1	N6660421DL000: L3 Technologies, Inc.
15 - Dry End Sonar System Engineering	Follow on Contract for N0017819D8122/N6660421F3002	Cost-Reimbursement SeaPort	FY25 Q1	N0017819D8122/N6660421F3002: Mikel Inc.
IMA Follow On	Towed Array Intermediate Maintenance Activity (IMA) contract follow on	Cost-Reimbursement	FY25 Q1	N0017819D8006/N6660420F3010: Leidos
15-Wet End Service Contract	Wet End service contract follow on to N6660422F3009	Cost-Reimbursement SeaPort	TBD	N6660422F3009: MRC

Opportunities

- ASW Performance Analysis
- Distributed Sensors
- Cyber Security
- Hull Mounted Arrays
- Human Systems Integration
- Next Gen Arrays - Highly Skilled Technicians
- In Service Engineering
- Advanced Sensor Development
- Signal Processing
- Simulation/Stimulation
- Towed System Reliability
- Transducer / Hydrophone Technology
- Test & Evaluation

Keys to Contracting Success:

- Competition
- Advanced Planning
- Sources Sought
- Trusted Partner

QUESTIONS?

C15 TDAA

donald.p.young7.civ@us.navy.mil

(401) 832-7947



*Working with Industry, Academia and Navy Labs to Deliver Solutions to the Warfighter
Where and When They are Needed*

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