

Naval Surface Warfare Center Indian Head Division (NSWC IHD) 2024 Industry Day

WELCOME!!!

26 April 2024





Agenda

8:15 – 9:00 a.m.	Registration Sign-In
9:00 - 9:10 a.m.	Welcome Ms. Jennifer Barnidge, NSWC IHD Deputy Director for Small Business
9:10 – 9:30 a.m.	Opening Remarks (Command Overview & ECMP) Mr. Steve Anthony, NSWC IHD Deputy Technical Director
9:30 – 9:55 a.m.	Keynote Speaker w/Q&A Ms. Arveice Washington, SES, Director, DON Office of Small Business Programs (OSBP)
9:55 – 10:15 a.m.	DON Mentor Protégé Program w/Q&A Ms. Mercedes Thurston, Program Manager, DON OSBP Mentor Protégé Program
10:15 – 10:45 a.m.	NSWC IHD Contracts, Other Transaction Agreement(s), & Corporate Operations Briefs: <ul style="list-style-type: none">▪ Contracts (Ms. Rachel Luther, Code 02 Deputy Department Head)▪ NEST OTA (Dr. Chris Wilhelm, Office of Technology Applications Representative)▪ Corporate Operations (Ms. Angela Creasey, Code 10 Department Head)
10:45 – 11:00 a.m.	Break
11:00 – 11:50 a.m.	NSWC IHD Technical Department Briefs: <ul style="list-style-type: none">▪ Explosive Ordnance Disposal (D Dept; Mr. Jason Perry, Department Head)▪ Energetics Manufacturing (M Dept; Mr. Aaron Gentili, Deputy Department Head, Acting)▪ Research & Technology, Test & Evaluation (R Dept; Mr. Aaron Jenkins, Department Head, Acting)▪ Systems Engineering (E Dept; Jessica Schombs, Technical Acquisition Specialist)
11:50 – 12:00 p.m.	Closing Remarks
12:00 – 2:00 p.m.	Networking/Department Tables



NSWC Indian Head Division Industry Day

Presented to:

NSWC IHD Industry Day

Presented by:

J. Steve Anthony

NSWC IHD Deputy Technical Director

- 26 April 2024 -

CAPT Stephen C. Duba, USN
Commanding Officer

Mr. Ashley G. Johnson, SES
Technical Director

Distribution statement A (24-086): Approved for public release; distribution is unlimited

Mission

Research, develop, test, evaluate (RDT&E), manufacture and provide in-service support of energetics and energetic systems. Provide Soldiers, Marines, Sailors and Airmen with information and technology to detect, locate, access, identify, render safe, recover, exploit and dispose of explosive threats.



Range and Speed

- Propellants
- Explosives
- Fuels
- Reactive materials
- Rocket motors
- Conventional ammunition



Lethality

- Novel explosives
- Reactive materials
- Warheads
- Casing
- Modeling and simulation (M&S)
- Conventional ammunition



Signatures Management

- Propellants
- Fuels
- Rocket motor design
- M&S
- Safe and arm (S&A) devices

Safety

- EOD
- S&A / Fuzing
- Aircrew escape
- Packaging, Handling, Storage and Transportation of Energetics
- Insensitive munitions
- Chem bio defeat



The Navy's Arsenal

Purpose-built: Established in 1890, NSWC IHD has been manufacturing energetics at war mobilization scales for more than 125 years.

Navy's Public Arsenal: SECNAV designated NSWC IHD as a Center for Industrial and Technical Excellence (CITE) for Energetics and Ordnance Systems Depot maintenance and Arsenal activities in 2014; the only such public naval arsenal.

Government-owned: NSWC IHD focuses on military products with critical national security importance, significant safety/environmental risks, and low profit potential for the private sector; public-private-partnerships (P3) are in place to bolster the industrial base.

Necessary for Innovation: RDT&E, engineering and manufacturing combined at one site allows Navy to efficiently advance combat capability across ALL warfighting domains.

NSWC IHD is the Navy's surge energetics manufacturing site with the capabilities and expertise needed for wartime mobilization.

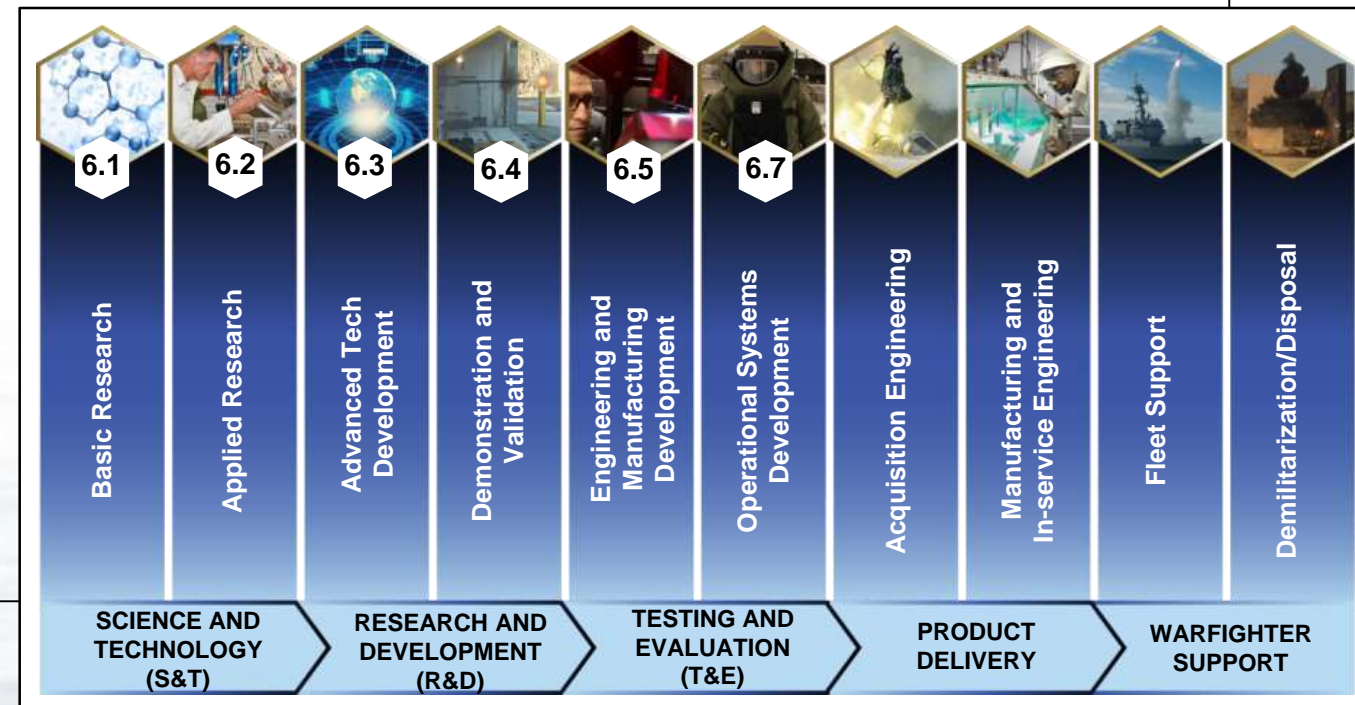
NSWC Indian Head

Mission: Research, develop, test, evaluate (RDT&E), manufacture and provide in-service support of energetics and energetic systems. Provide Soldiers, Marines, Sailors and Airmen with information and technology to detect, locate, access, identify, render safe, recover, exploit and dispose of explosive threats.

Vision: Outpace our Adversaries

Key Highlights:

- Navy's Center of Excellence for Energetics
- SECNAV designated **Arsenal** for energetics and ordnance systems
- Only DON activity delivering full-spectrum energetics solutions from basic research through disposal



State of Energetics

Background: The energetics industrial base has degraded due to volatile demands, market consolidation, and fragile supply chains

- **Capability:** most Navy munitions use outdated energetics
- **Capacity:** energetic material systems are production bottlenecks

Challenges:

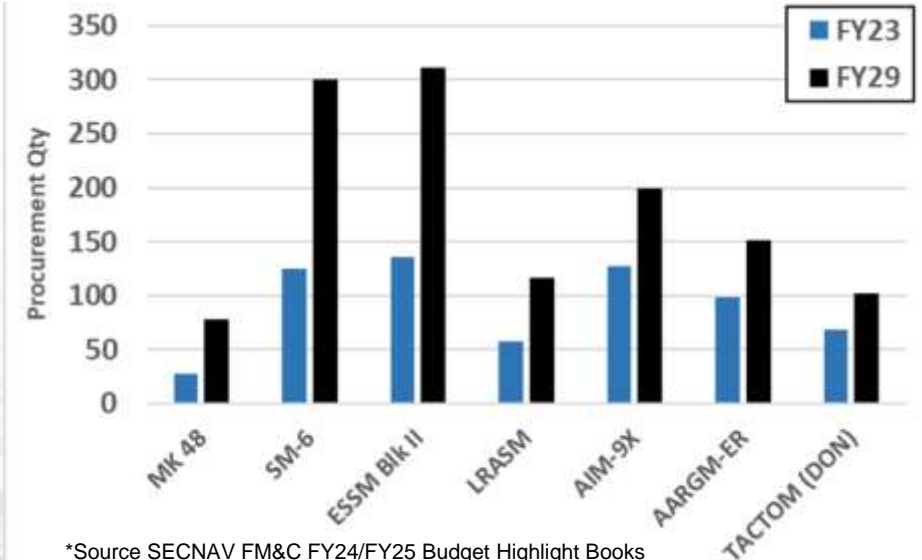
- Energetics advancement is needed to keep pace and enable new warfighting concepts
- Munitions procurement will double over the next 5 years
- Industrial Base:
 - Commercial: higher readiness, but operating near max capacity
 - Organic: significant latent capacity available, but lower readiness

Need More Energetics and Better Energetics.

Houthi Attacks = Navy Capability/Capacity Challenge



Increased Procurement = Industrial Base Challenge



*Source SECNAV FM&C FY24/FY25 Budget Highlight Books

The Navy's Organic Industrial Base (OIB)

"The DoD must leverage the USG-owned OIB which complements the commercial DIB by providing a ready and controlled source of technical competence to support the force structure and requirements" – **National Defense Industrial Strategy**

Three Core Roles

1. Advance energetics S&T and manufacturing state of the art



2. Maintain national industrial capabilities as the foundational backstop to CIB



3. Sustain Government expertise



Catalyst to

Invest in innovation

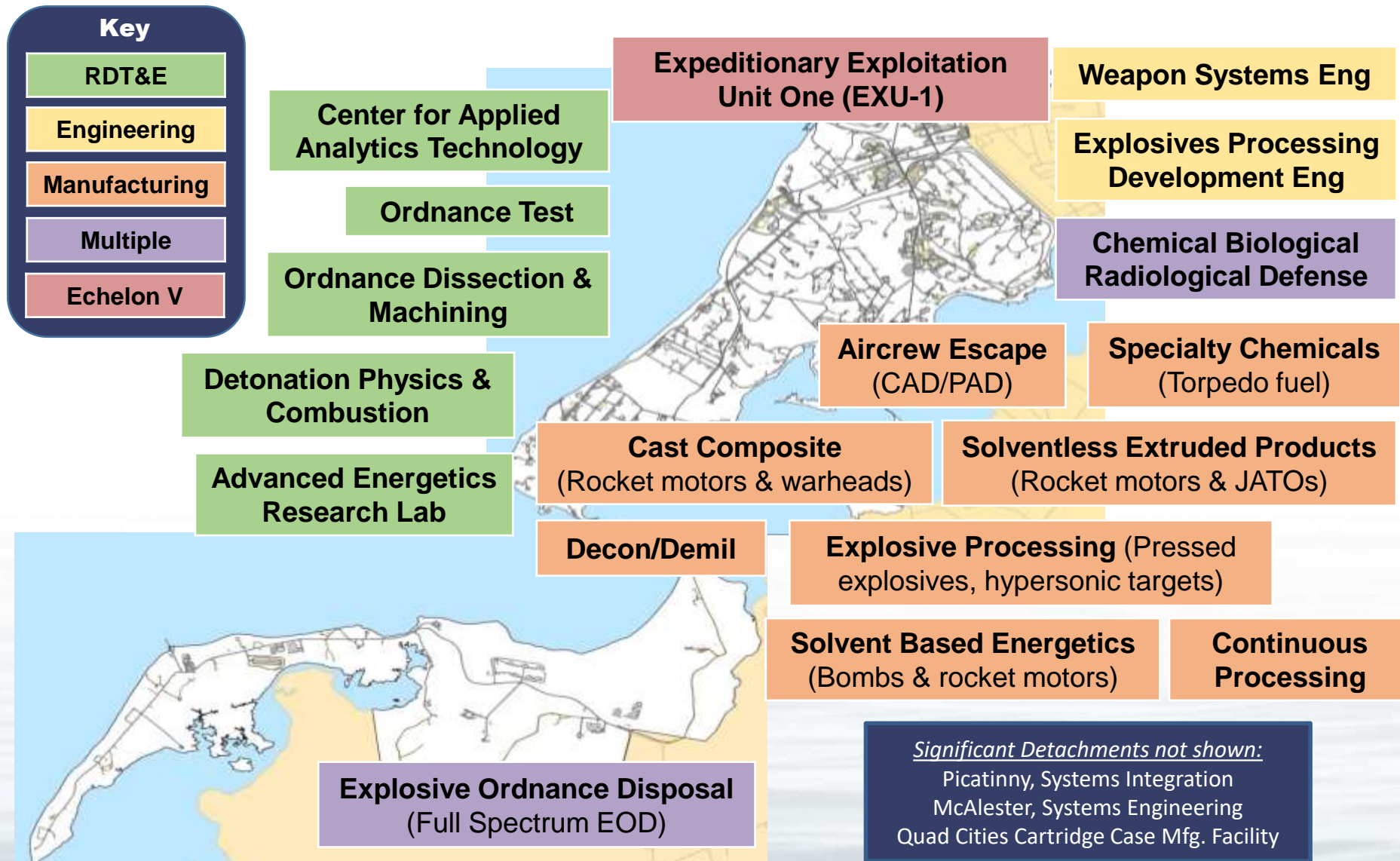
Onboard new industrial partners

Surge for war & protraction

Maintain latent capacity during peacetime

Drives energetics innovation. Meets surge manufacturing requirements. Sustains Navy's energetics expertise.

Industrial Complexes





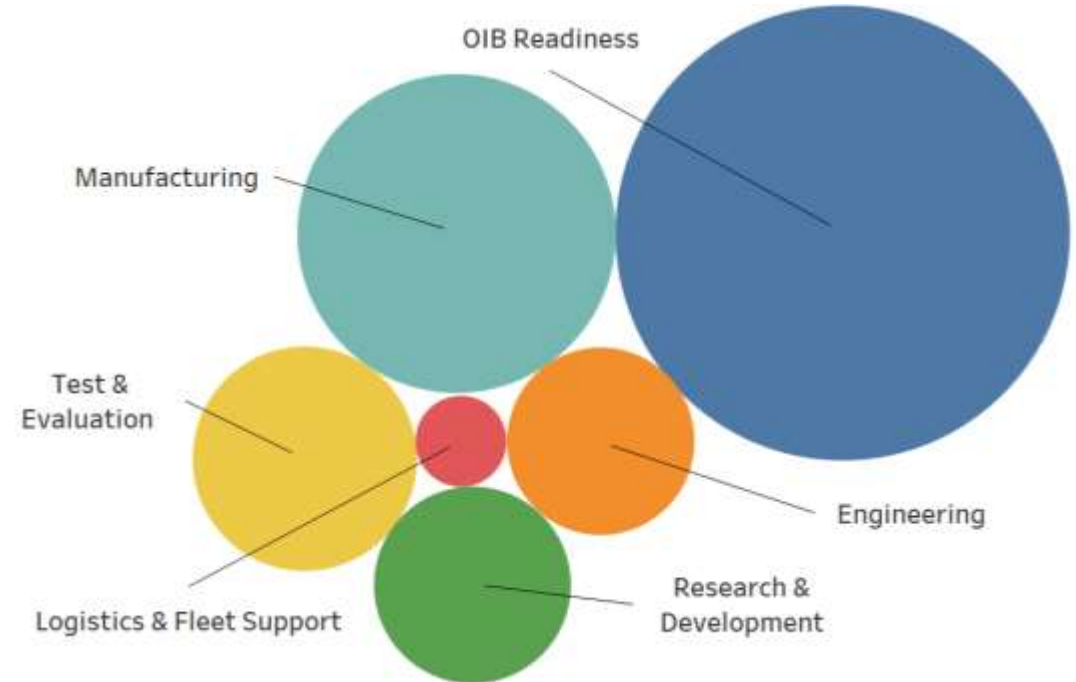
What is ECMP?

- The Navy is using an all-hands-on-deck strategy to bolster its munitions capability and capacity. This includes investment in both the private and organic sectors of the munitions industrial base (MIB).
- As a foundational layer to the munitions industrial base, the Navy's Arsenal advances state-of-the-art technologies, bridges the gap between private sector capacity and national munitions requirements, and stewards core expertise and capabilities as the Navy's expert and trusted advisor in this field.
- The Energetics Comprehensive Modernization Plan (ECMP) will fully restore the Navy's Arsenal infrastructure over the coming years. The vision is an Arsenal that is safe, agile, resilient and ready to provide the capabilities and capacity required for wartime preparation, surge and replenishment.
- The ECMP includes more than 500 infrastructure modernization projects, balanced across the core competencies of research and development, test and evaluation, engineering, manufacturing, and logistics and fleet support.

ECMP Infrastructure Plan

- \$2.7 billion, 15-year, modernization plan for the Navy's Energetics OIB
- Complements Naval Air Warfare Center Weapons Division (NAWC WD) earthquake recovery plans and recent investments to expand ABL
- Over 500 projects at NSWC IHD, 15 projects at NAWC WD
- Big ideas:
 1. Unlock near-term latent capacity by improving **safety & readiness**
 2. Expand capacity through **renovation of existing facilities**
 3. Further expand capability/capacity through **modernization**

ECMP Summary (FY23 – FY37)



Near: Improved Safety + Readiness
Mid: Expansion through Renovation
Far: State-of-the-Art Modernization

ECMP has already started
FY23: \$120 million obligated
FY24: More than \$200 million obligation plan

Example: FY23/24 ECMP Progress in Pictures



New Roofs



Mixer Alarm & Sprinkler Upgrade



Fire Suppression Upgrades



Unplanned Storm Damage Electrical Repair



Potable and River Water Replacement



IT improvements and new Safety Offices



Executing ECMP with Speed

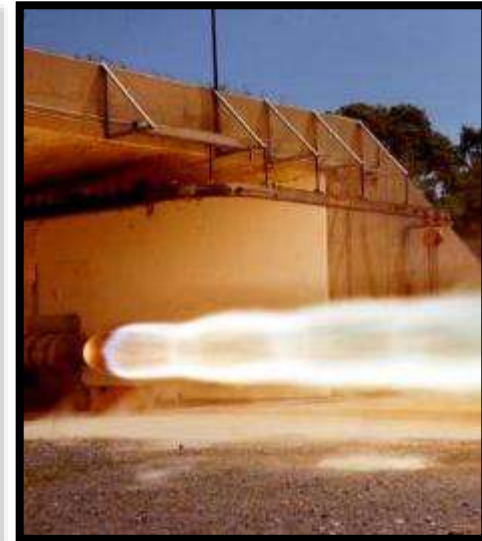
1. **Comptroller engagements with FMB to sustain FY24 expensing targets**
2. **Increased Staff** to actively manage projects, engineer projects, and ensure safety
3. **Novel Authorities** (e.g., Sect 233) to allow us to go fast
4. **SECNAV Certification and NOSSA engagement** for accelerated citing
5. **Strategic contract vehicles** to handle large growth in contracting demands
6. **NEST OTA** for prototyping and design efforts
7. **Industry days** to capture ECMP performers (e.g., small HVAC companies)

With progressive techniques, NSWC IHD is poised to succeed again in FY24

Summary

The Navy's OIB is a foundational layer to the munitions industrial base

- Provides flexible, full-spectrum capabilities (molecule to mission)
- Navy OIB modernization has already started
- Partnerships with industry are established and growing
- Essential to advance energetics S&T while meeting energetics production goals during peacetime or surge





DEPARTMENT OF THE NAVY

OFFICE OF SMALL BUSINESS PROGRAMS

Ms. Arveice Washington

Director, Small Business programs
Office of the Secretary of the Navy



Office of the Secretary of the Navy

Small Business Programs



DON OSBP

Mentor Protégé Program (MPP)

April 26, 2024

Briefer: Ms. Mercedes Thurston
DON OSBP Mentor Protégé
Program Manager

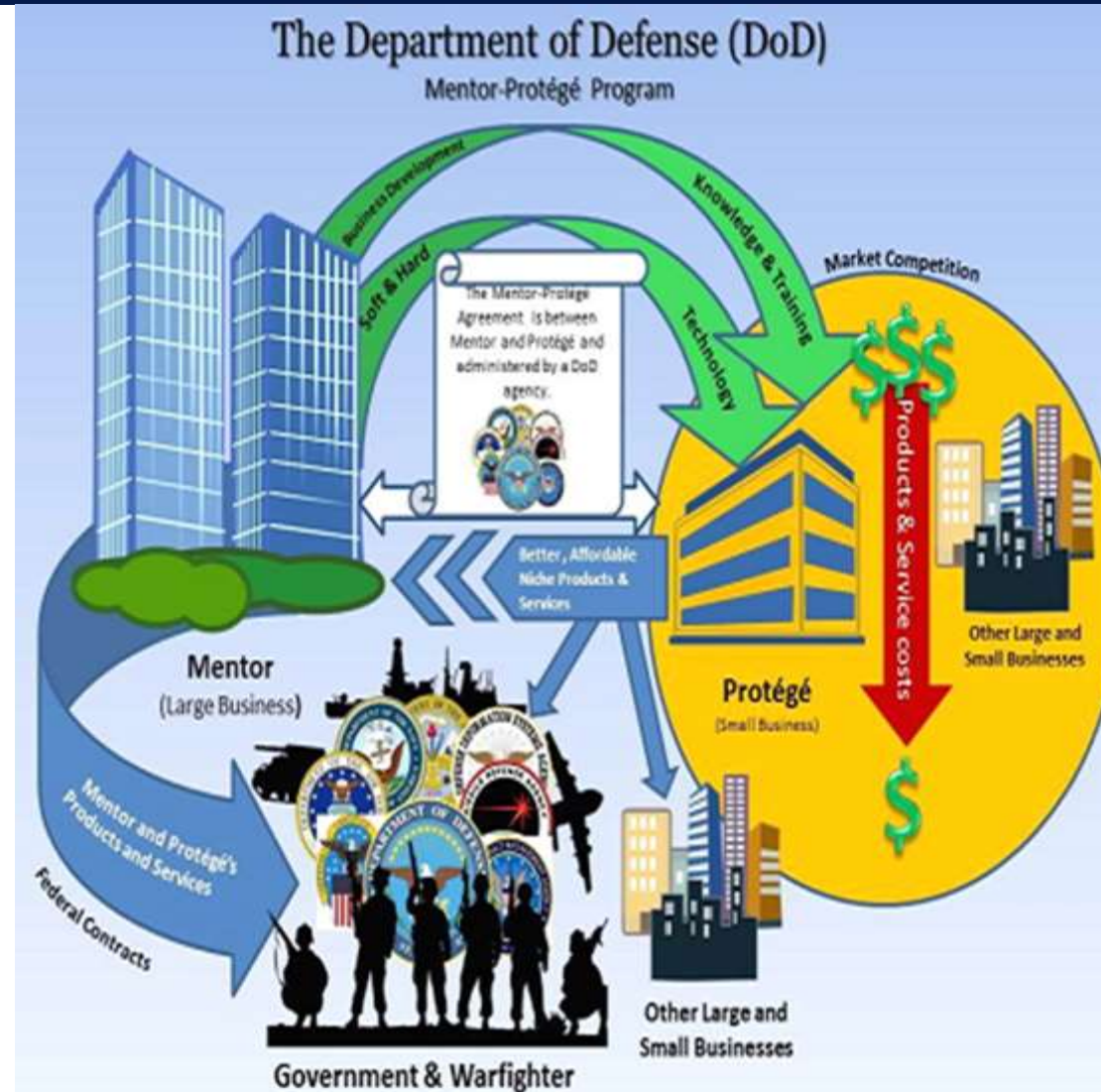
“Small Business –
The First Option”

What is the Mentor Protégé Program (MPP)?

Office of the Secretary of the Navy Small Business Programs

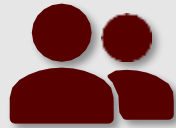


- The Department of Defense (DoD) Mentor-Protégé Pilot Program was established under Section 831 of Public Law 101-510, the National Defense Authorization Act for Fiscal Year 1991.
- Created to provide incentives for DoD Prime Contractors to assist small business in enhancing their capabilities and increasing participation in government and commercial contracts.



MPP Overview

Office of the Secretary of the Navy
Small Business Programs



The DoD Mentor-Protégé Program (MPP) assists small businesses (Protégés) to successfully compete for prime contract and subcontract awards by partnering with eligible companies (Mentors) under individual, project-based agreements for three years*.



Mentor-Protégé Agreements (MPA) consist of general business management assistance and engineering and technical (Technology Transfer) assistance.



Technology Transfer can include implementation of quality management systems, certifications, or it can work on specific technology that provides a benefit to a program within the DoD.



MPP Purpose

Office of the Secretary of the Navy
Small Business Programs



- Increase the overall participation of Small Disadvantaged Businesses (SDBs), Women Owned Small Businesses (WOSBs), Historically Underutilized Business Zone Small Businesses (HUBZone) and Service-Disabled Veteran-Owned Small Businesses (SDVOSBs) in Government contracts.



- Enhance the capabilities of eligible small businesses so that they may perform significant work on DoD contracts which results in a increase in the overall defense industrial business base.



- Facilitate the formation or enhancement of long-term business relationships in order to develop a stable industrial business base for the Mentor, Protégé and DoD



MPP Regulatory Update

Office of the Secretary of the Navy
Small Business Programs



- National Defense Authorization Act for Fiscal Year 2023 codification from pilot to permanent and addressed industry concerns related to the MPP.
 - Lower threshold for Mentor Eligibility: from \$100 million to \$25 million in total defense contracts for the prior fiscal year;
 - Increased Duration for MPP Relationships: extends participation from two to three years;
 - Enhanced Data Collection: requires DoD OSBP to “maintain outcome-based performance goals and annually collect data
 - Pilot Program to Incentivize Protégé Participation: Protégé Technical Reimbursement Program which allows the protégé to receive up to 25 percent of the reimbursement that the mentor firm
 - Increased Post-Award Reporting: from 2 years to 5 years



Types of MPP Agreements

Office of the Secretary of the Navy
Small Business Programs



- Reimbursable MPAs
- Credit MPAs
- Hybrid MPAs (Credit MPA + Reimbursable MPA)





Reimbursable:

- Provides monetary reimbursement only for the cost of developmental assistance incurred by the Mentor firm and provided to a Protégé firm in accordance with the approved agreement.
- Allowable Cost include:
 - Assistance provided by HBCU/MI/SBDC/PTAC
 - Direct labor costs (for assistance by Mentor firm employees)
 - Cost for developmental trainings and conferences





Credit:

- Allow mentor to receive credit toward subcontracting goals for costs incurred
- Credit Agreements are administered by DCMA

Hybrid:

- Combination of the reimbursable and credit agreement.
- One year must be credit and one year is reimbursable.
- Developmental assistance costs may only be incurred after receipt of DCMA approval letter.



Who Can Be A Mentor?

Office of the Secretary of the Navy Small Business Programs



The Mentor



- Currently performing under at least one active approved Subcontracting plan
- Has DoD contracts totaling at least \$25M* in previous fiscal year.
- Is other than small entity (can be waived)
- Prime contractor with an active subcontracting plan or is an 8(a) graduate with documentation of its ability to serve as a Mentor.

Eligibility



- Be eligible for award of a Federal contract
- Must Demonstrate:
 - Qualified to provide assistance;
 - In good financial health and character; and,
 - Is not on debarred/suspended



Who Can Be A Protégé?

Office of the Secretary of the Navy Small Business Programs



The Mentor



- Small Business Concern
- Eligible for award of Federal contracts
- Not owned by individual/entity with stock options/securities in Mentor
- Satisfy at least one of the eligibility criteria.
- No more than size of standard corresponding to primary North American Industry Classification System (NAICS) code.

Eligibility



- Small Disadvantaged Business (SDB)
- Women-Owned Small Business (WOSB)
- HUBZone Small Business (HUBZone)
- Service-Disabled Veteran-Owned Small Business (SDVOSB)
- A business employing the severely disabled;
- A business owned and controlled by a Native American tribe
- A business owned and controlled by a Native Hawaiian Organization
- An entity providing goods/services in private sector critical to enhancing DoD supplier base.





- Support the warfighter;
- Brings innovative tech into established Defense Acquisition Programs;
- Develops a more capable small business industrial base and robust supply chain;
- Ensures capacity & capability to support prime and subcontracting requirements;
- Fosters the establishment of long-term business relationships;
- Promotes other programs and resources that exist with the DoD;
- Protect our investments through cybersecurity hygiene and readiness.



Mentor & Protégé Benefits

Office of the Secretary of the Navy
Small Business Programs



Mentor Benefits



- Develop long-term business relationships with SDB concerns.
- Develop high-quality subcontracting pool
- Pursue new market opportunities as a team
- Issue subcontracts to Protégé on a non-competitive basis
- Receive cost reimbursement or small business subcontracting credit
- Gain source selection past performance on evaluation factor

Protégé Benefits

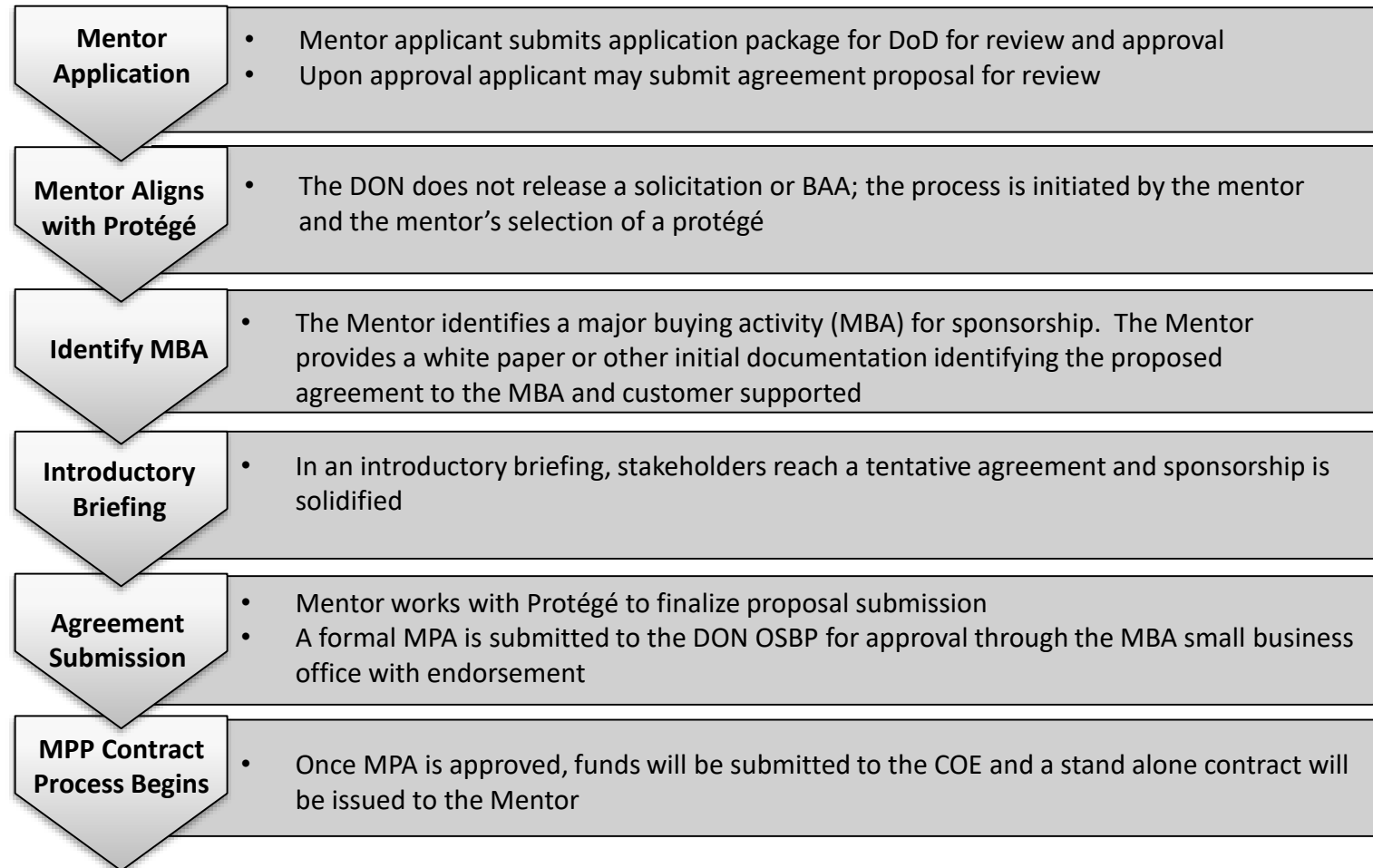


- Technology transfer
- Engineering & Technical training
- Business Infrastructure enhancement
- Develop business relationship with Prime Contractor
- Expand subcontracting opportunities
- Business development and planning training
- Leverage technical expertise of the Mentor
- Improve competitive advantage



How To Participate

Office of the Secretary of the Navy Small Business Programs



Note: A detailed flow and description of the process can be found in the [DON MPP Guidebook](#).



Criteria for MPA

Office of the Secretary of the Navy
Small Business Programs



- Agreement length of three* years
- Must include a detailed developmental program for the protégé containing
 - Specific milestones
 - Goals and estimated dollar amount of potential subcontracts between the mentor and protégé.
 - Show value to DoD and enhancements to Defense Industrial Base through specific quantitative and qualitative metrics.
- Must provide detailed cost breakdown
 - **The total amount reimbursed to a DoD Mentor for costs of assistance furnished to a DoD Protégé in a fiscal year may not exceed \$1M**
 - **The average cost of a 3-year direct reimbursed agreement* is \$500,000 —\$750,000 (for all three years)**

Specific content found in DFARS Appendix I-107

*Average cost of agreement was calculated from historical 3-year term agreements





Mercedes Thurston

DON OSBP Mentor Protégé
Program Manager

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(703) 946-7870 (Cell)

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Checkout DON's MPP Webpage



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Small Business Programs



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current



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Industry Days





Questions?





BACK-UP & ALTERNATE SLIDES



Additional Resources

Office of the Secretary of the Navy Small Business Programs



Policy and Regulation:

- DFARS 219.71-
https://www.acq.osd.mil/dpap/dars/dfars/html/current/219_71.htm
- DFARS Appendix I-
https://www.acq.osd.mil/dpap/dars/dfars/html/current/appendix_i.htm

Department of Navy (DON):

- DON Operations Plan –
<https://www.secnav.navy.mil/smallbusiness/Documents/DON%20OSBP%20Ops%20Plan%202023.04.11.pdf>
- Mentor Protégé Program Guidebook
<https://www.secnav.navy.mil/smallbusiness/Documents/DON%20Mentor%20Protege%20Program%20Guidebook%20-%20JUNE2023r1.pdf>

DoD Office of Small Business Programs:

<https://business.defense.gov/Programs/Mentor-Protege-Program/>



Naval Surface Warfare Center Indian Head Division (NSWC IHD) 2024 Industry Day

**Contracts, Other Transaction Agreement(s) &
Corporate Operations**





Contracts Department Code 02

Presented to:

**NSWC Indian Head Division
Industry Day**

Presented by:

Rachel Luther
Contracts (Code 02)
Deputy Department Head

- 26 April 2024 -

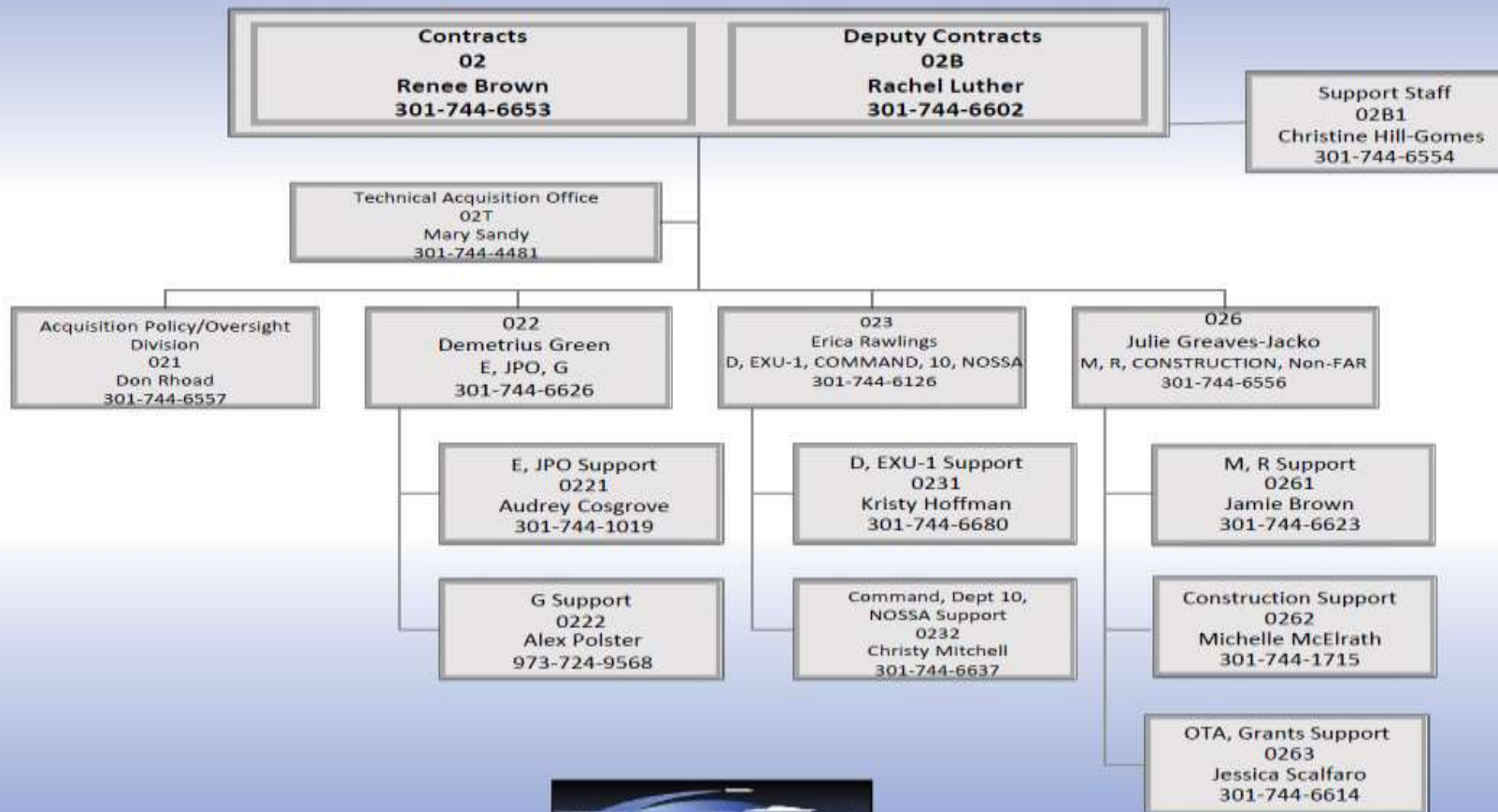
CAPT Stephen C. Duba, USN
Commanding Officer

Mr. Ashley G. Johnson, SES
Technical Director

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Contracts (02) Organization Chart

Contracts Department (Code 02) Organizational Chart

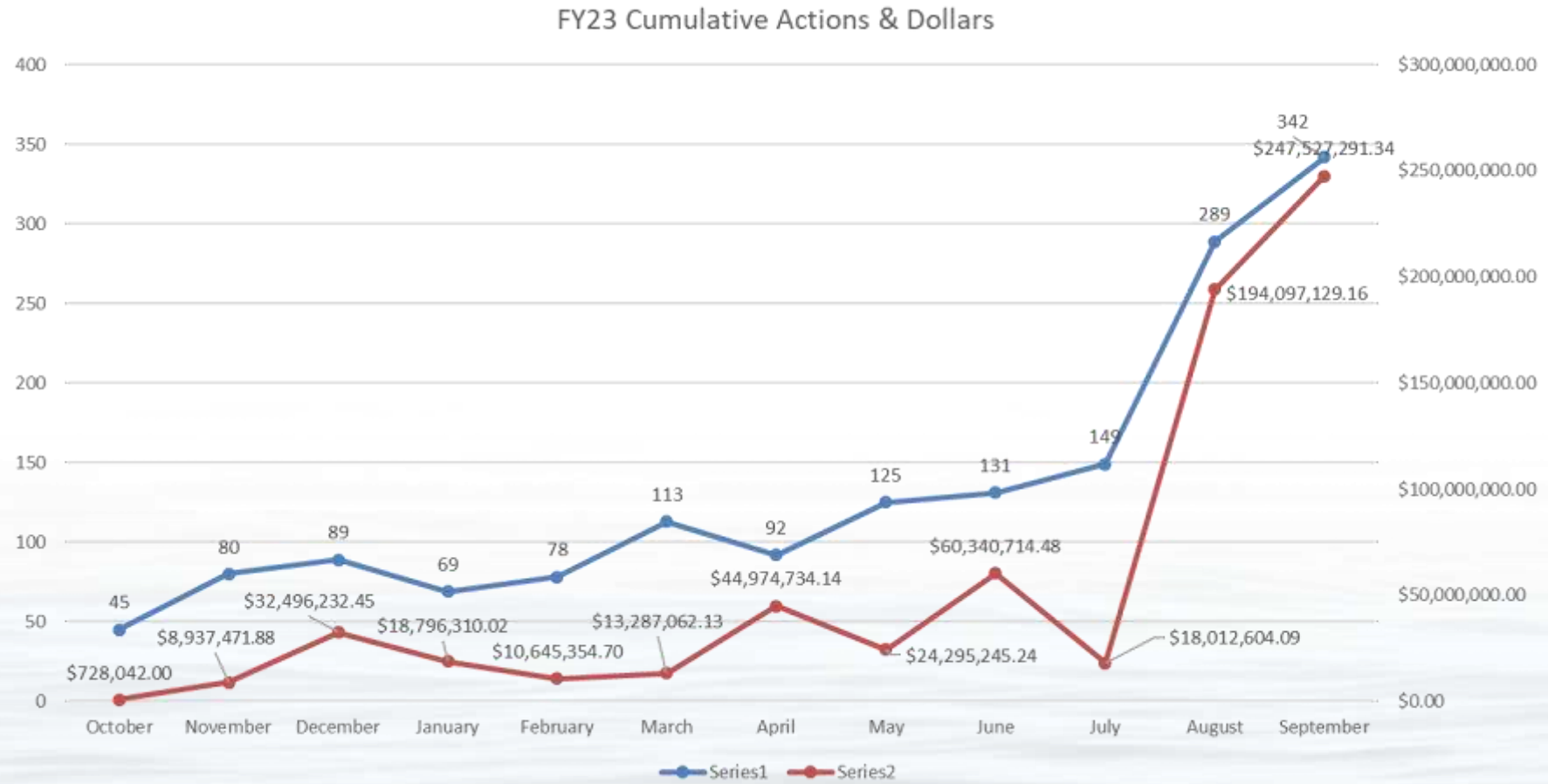




FY23 Overview

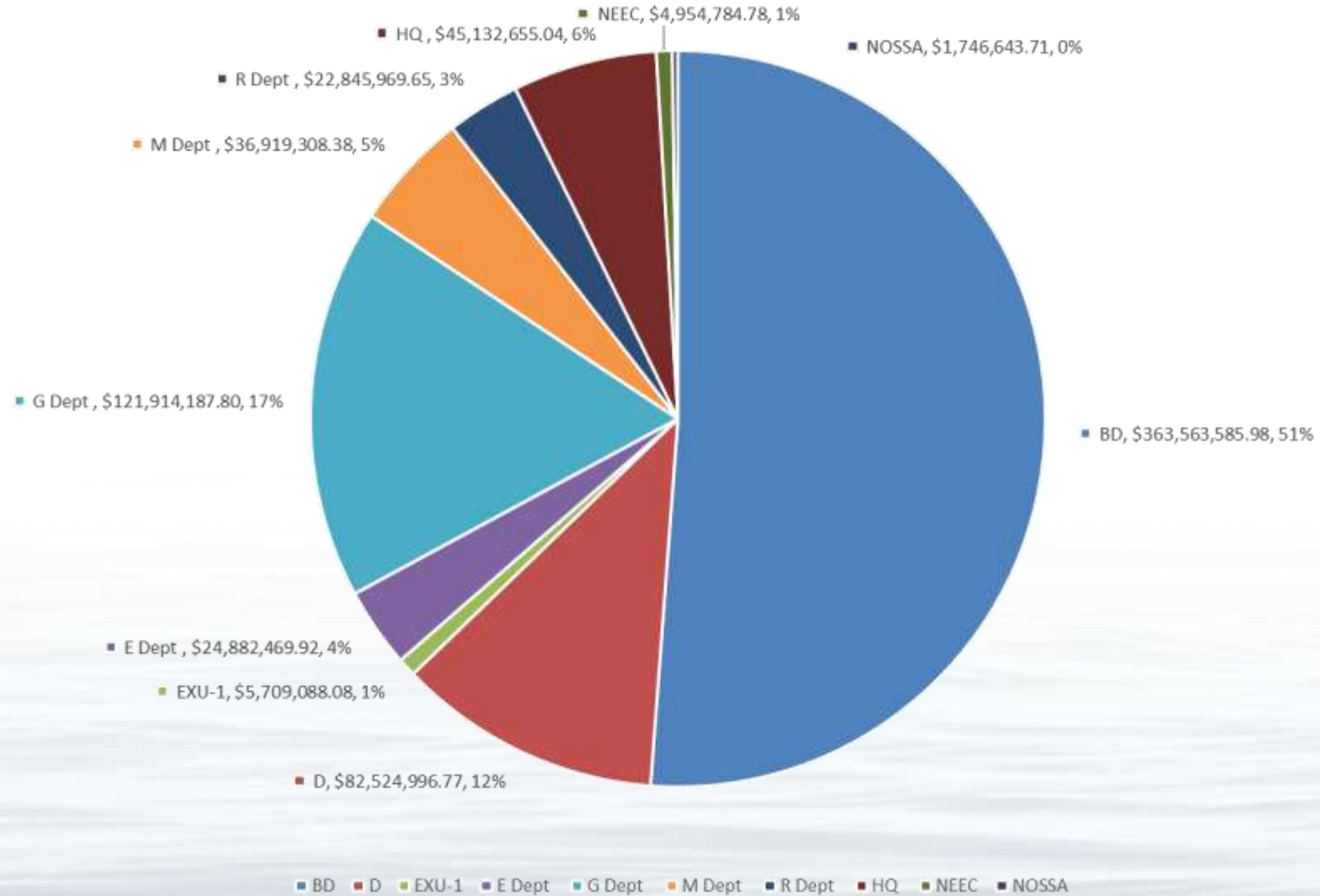
Total Number of Actions: 1602

Total Dollars Obligated: \$674,138,191.63



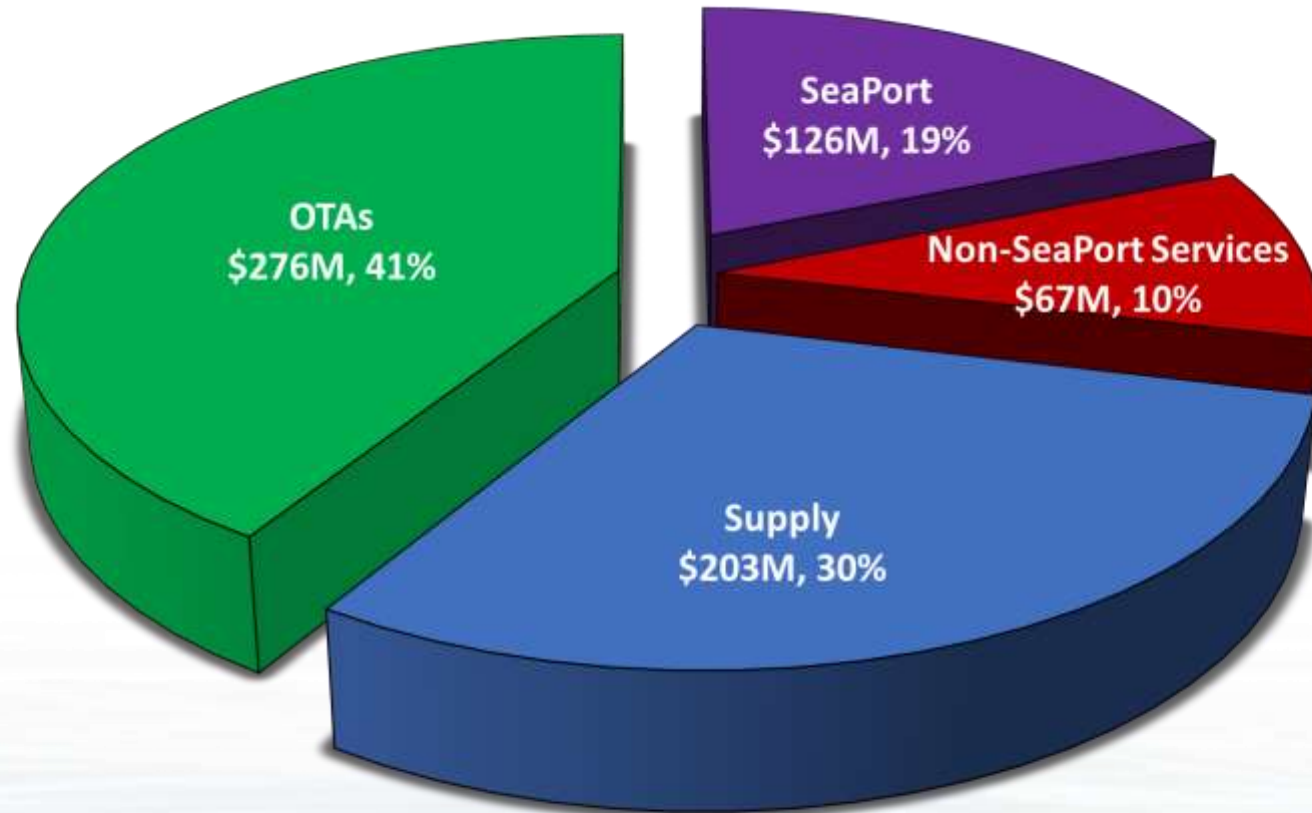


FY23 Overview by Department



Distribution Statement A (24-078): Approved for public release; Distribution Unlimited

FY23 Obligations by Category



Total FY23 Obligations - \$673M



FY23 Top 5 Supply Categories

- Weapons
- Surface Use Explosive Ordnance Disposal Tools and Equipment
- Ammunition and Explosives
- Shipping and Storage Containers
- Fire Control and Safety Rescue Systems and Equipment



FY23 Top 5 Non-Seaport Service Categories

- Repair or Alteration of Buildings
- Maintenance, Repair and Rebuilding of Equipment
- Architect and Engineering – Construction
- IT and Telecommunications
- Environmental Systems Protection



Basic Purchasing Agreement (BPA)

On-going effort to partner with Small Businesses through BPAs under several Product Service Codes

Supplies	
PSC Code	Description
3670	Specialized Semiconductor, Microcircuit, and Printed Circuit Board Manufacturing Machinery
4120	Air Conditioning Equipment
4130	Refrigeration and Air Conditioning Components
4210	Fire Fighting Equipment
4710	Pipe, Tube and Rigid Tubing
4720	Hose and Flexible Tubing
4730	Hose, Pipe, Tube, Lubrication, and Railing Fittings
5110	Hand Tools, Edged, Nonpowered
5120	Hand Tools, Nonedged, Nonpowered
5130	Hand Tools, Power Driven
5305	Screws
5306	Bolts
5307	Studs
5310	Nuts and Washers
5315	Nails, Machine Keys, and Pins
5320	Rivets
5325	Fastening Devices
5330	Packing and Gasket Materials
5331	O-Rings
5335	Metal Screening
5340	Hardware, Commercial
5342	Hardware, Weapons System
5345	Disks and Stones, Abrasive
5350	Abrasive Materials
5355	Knobs and Pointers
5360	Coil, Flat, Leaf, and Wire Springs
5365	Bushings, Rings, Shims, and Spacers
5510	Lumber and Related Basic Wood Materials
5520	Millwork. Includes: Door Frames; Doors; Window Frames; Window Sashes
5530	Plywood and Veneer. Includes: Plywood and Veneered Panels
5999	Miscellaneous Electrical and Electronic Components
6350	Miscellaneous Alarm, Signal, and Security Detection Systems
6525	Imaging Equipment and Supplies
6640	Laboratory Equipment and Supplies
6830	Gases: Compressed and Liquefied.
7E20	IT and Telecom
8115	Boxes, Cartons, and Crates
8135	Packaging and Packing Bulk material
8415	Clothing, Special Purpose

Services	
PSC Code	Description
R498	Support - Professional: Patent and Trademark
R608	Support- Administrative: Translation and Interpreting
U001	Education/Training- Lectures
U002	Education/Training- Personnel Testing
U004	Education/Training- Scientific/Management
U005	Education/Training- Tuition/Registration/Membership Fees
U006	Education/Training- Vocational/Technical
U008	Education/Training- Training/Curriculum Development
U009	Education/Training- General
U012	Education/Training- Information Technology/Telecommunications Training
U014	Education/Training- Security
U099	Education/Training - Other

POC: Mary Sandy
Mary.m.sandy.civ@us.navy.mil
301-744-6682



Business Opportunity Websites

System	URL
SeaPort NxG	https://www.seaport.navy.mil/
System for Award Management – Contract Opportunities	https://sam.gov/content/home
General Services Administration	https://www.gsa.gov/
NASA Solutions for Enterprise-Wide Procurement	https://www.sewp.nasa.gov/



Naval Energetic Systems and Technologies Program (NEST) Other Transaction Agreement

Written By: Christopher Wilhelm, PhD

Presented By: CA Office

Presented On: 26 APR 2024

NEST Program Overview



- **Other Transaction Agreement (OTA)**

Established using 10 USC § 2371b “Authority of the Department of Defense to carry out certain prototype projects”

Base Agreement signed on March 5, 2021

- **Advanced Technologies International (ATI)**

Base Agreement established with ATI as the Consortium Management Firm

Several decades of Consortium Management experience

- **National Armaments Consortium (NAC)**

920+ consortium members, most with energetics experience

Several decades of experience with OTAs

Open to industry and academia

- **Collaboration**

The NEST OTA is collaboration between the DoD, ATI, and the NAC’s members to provide innovation technology solutions to address security threats in the surface, subsurface, air, ground, littoral and expeditionary environments

What is an Other Transaction Agreement?

- OT authorities were created to give DoD the flexibility necessary to adopt and incorporate business practices that reflect commercial industry standards and best practices into its award instruments
- OTs provide the government with access to state-of-the-art technology solutions from traditional and non-traditional defense contractors (NDCs), through a multitude of potential teaming arrangements tailored to the particular project and the needs of the participants
- OTs can help:
 - Foster new relationships and practices involving traditional and NDCs
 - Broaden the industrial base available to Government
 - Support dual-use projects
 - Encourage flexible, quicker, and cheaper project design and execution
 - Leverage commercial industry investment in technology development and partner with industry to ensure DoD requirements are incorporated into future technologies and products
 - Collaborate in innovative arrangements
- OTs are NOT:
 - FAR-based procurement contracts
 - Grants
 - Cooperative Agreements
 - Cooperative Research and Development Agreements (CRADAs)

What is a Prototype?

- A “prototype project” addresses a proof of concept, model, reverse engineering to address obsolescence, pilot, novel application of commercial technologies for defense purposes, agile development activity, creation, design, development, demonstration of technical or operational utility, or combinations of the foregoing. A prototype may be physical, virtual or conceptual in nature. A process, including a business process, may be the subject of a prototype project.
- Although assistance terms are generally not appropriate in OT agreements, ancillary work efforts that are necessary for completion of the prototype project, such as test site training or limited logistics support, may be included in prototype projects. A prototype project may be fully funded by DoD, jointly funded by multiple federal agencies, cost-shared, funded in whole or part by third parties, or involve a mutual commitment of resources other than an exchange of funds.
- A prototype project should be 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 to improvement of platforms, systems, components or materials in use by the armed forces. In this context, the phrase “directly relevant” focuses on the agency determination of the direct relationship of the prototype project (as opposed to a tangential association) with the DoD mission.
- Both dual-use and defense specific projects are encouraged for prototype projects.

NEST Structure

- **Enhanced Whitepaper (Recommended)**
Detailed whitepaper with ROM and SOW
Full Cost Proposal only if selected for award
- **Semi-annual solicitation using the Enhanced Whitepaper Process**
Three formal solicitations annually
Streamlined and proven process that the members understand
Reduced B&P for industry, lower barriers for small, nontraditional defense contractors
- **Remain open to Ad Hoc solicitations**
Responsive to more urgent or specific needs from government customers
Can be a faster process for more pressing needs
- **All proposals either placed in basket or rejected when feedback is released to industry**
Award selection happens from the basket (36 month validity from proposal submission)

More Information About NEST



- **Public Webpage URL: www.NSWCIHDNEST.org**
- **BIDS Webpage URL: <https://ati.acqcenter.com/NEST/BIDS.NSF/>**

Timeline

WP Submission Window: 3-4 weeks

CMF Screening: 1 day

Technical Evaluations: 2 weeks

TAM Consensus/Competitive Evaluation: 2 weeks

Acquisition Review: 2 weeks



NEST Technology Areas

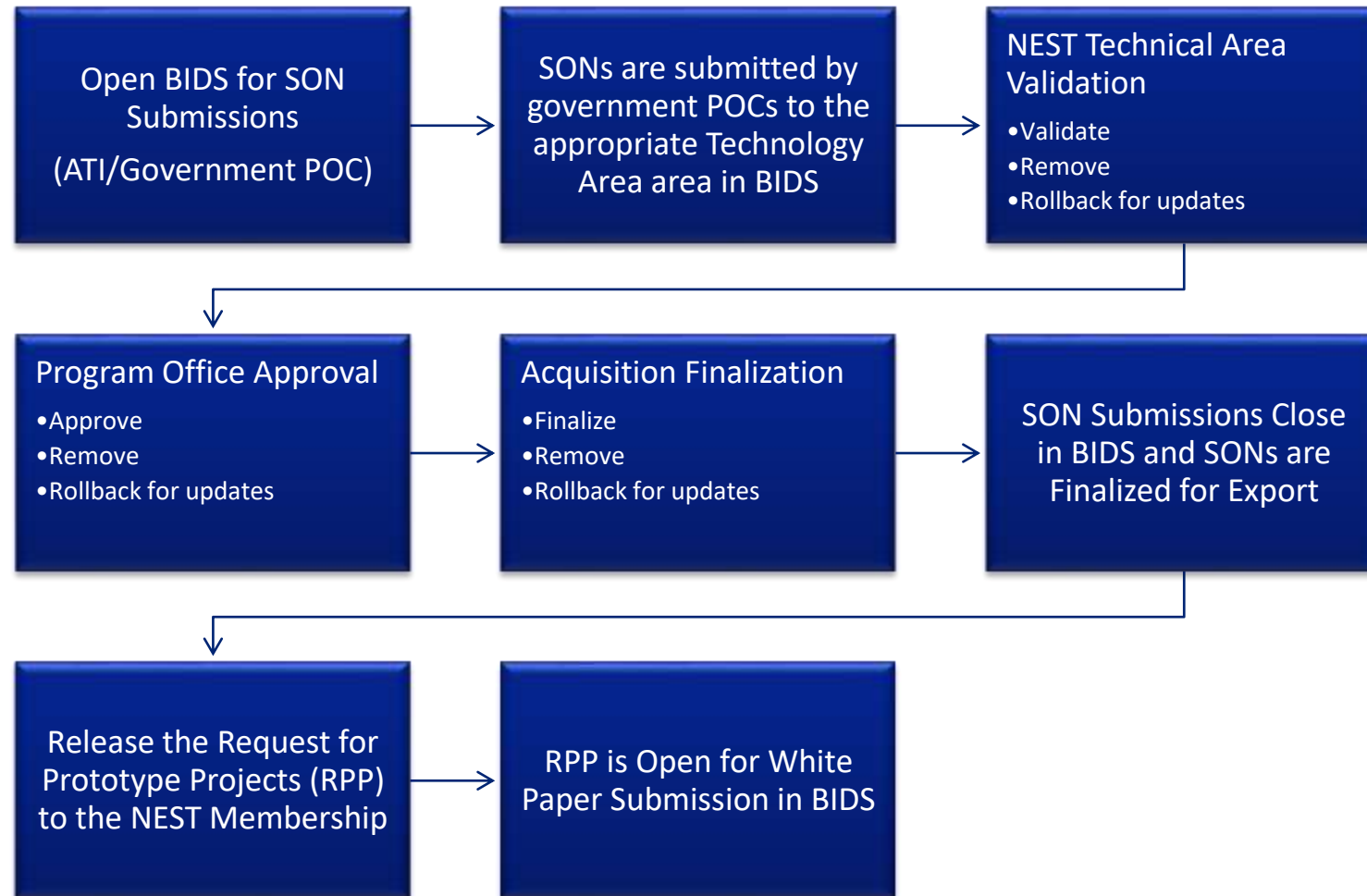
1. Energetics (ENR)
2. Energetics Manufacturing (ENRM)
3. Energetic Systems (ENRS)
4. Energetics and Energetic Systems Modelling (EESM)
5. Modelling Software and Coding (MSC)
6. Artillery Systems, including Naval Gun Systems (ART)
7. Ammunition and Guns Ammunition (AGA)
8. Propellants (PLS)
9. Propulsion Systems (PPS)
10. Warheads (WHD)
11. Ordnance Disassembly and Related Technologies (ODRT)
12. IED Detection, Defeat, and Exploitation (IED)
13. Fuzing and Safe and Arm Systems (FSA)
14. Counter Unmanned Systems (CUxS)
15. Micro Electrical Mechanical Systems (MEMS)
16. Underwater Energetic Technologies (UET)
17. Explosive Ordnance Disposal (EOD)
18. EOD Robotic Systems (EODR)
19. EOD Systems and Tools (EODS)
20. Electromagnetic Radiation, Signals, Signal Processing, and Signal Capture (EMRS)
21. Chemical, Biological, Radiological, and Nuclear (CBRN)
22. Packaging, Handling, Storage, and Transportation (PHST)

NEST Statement Of Need



- The Statement of Need (SON) Requirement collection is intended to define the Government's needs that fall within the 22 Technology Areas of NEST.
- SON Requirements must be a prototype project that includes innovative technologies and/or prototype processes that may benefit the DoD. They should solicit prototype solutions that improve performance, capability, and/or addresses technology gaps pertinent to Naval Surface Warfare advances.
- The final Request for Prototypes will be distributed to the NEST members as part of the NEST Request for Prototypes.

NEST SON Process

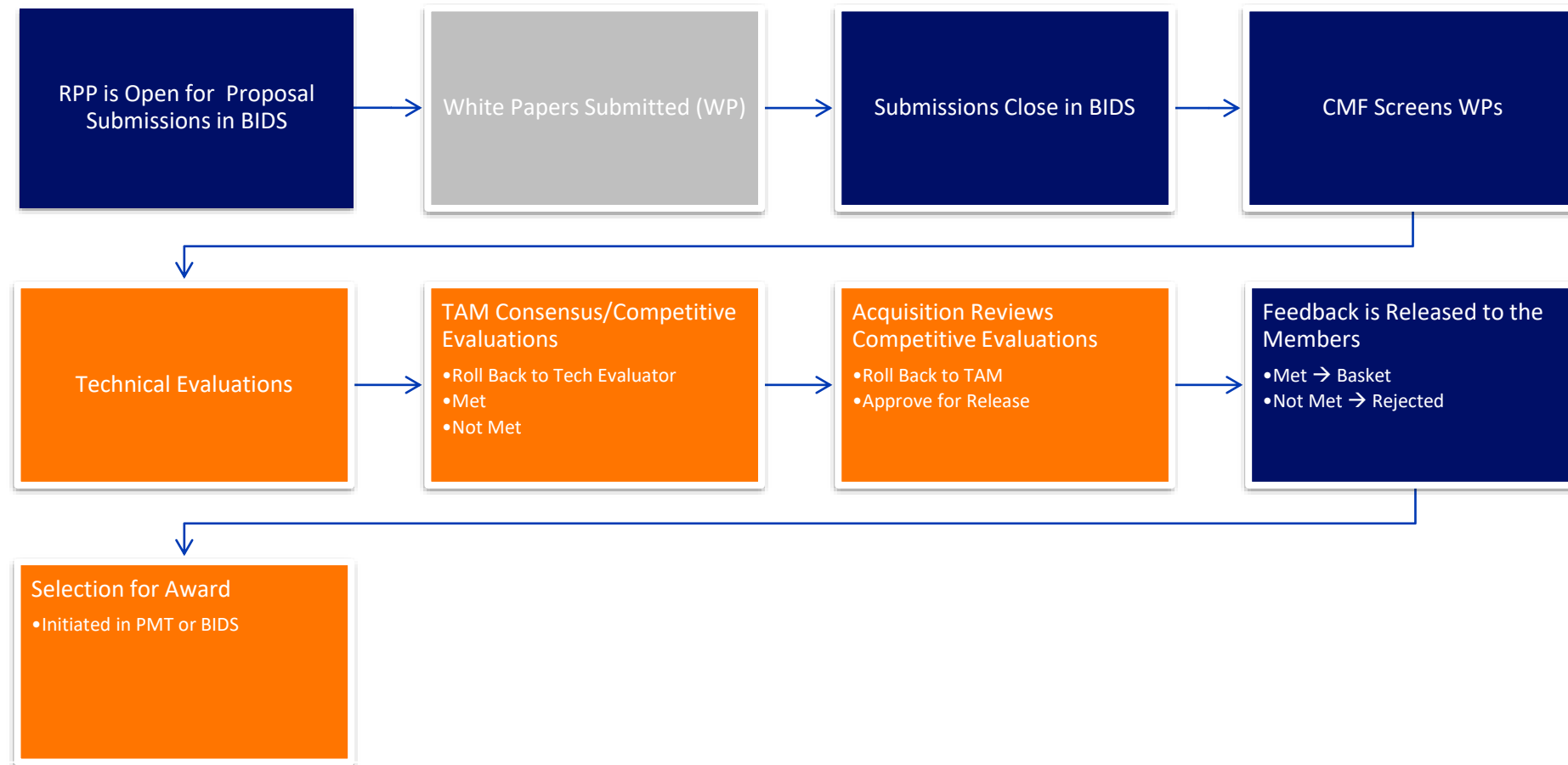




What Happens Next?

- Once the SON is submitted in BIDS, the NEST Technology Area Managers, Program Office and Acquisition will review submitted SON requirements to ensure they meet the requirements of the NEST OTA.
- Once finalized and approved the final SON document will be released with the Request for Prototypes to the consortium members.
- Draft SONs will be made available to Consortium Members prior to “release” to allow for maximum collaboration.

NEST Evaluation Process

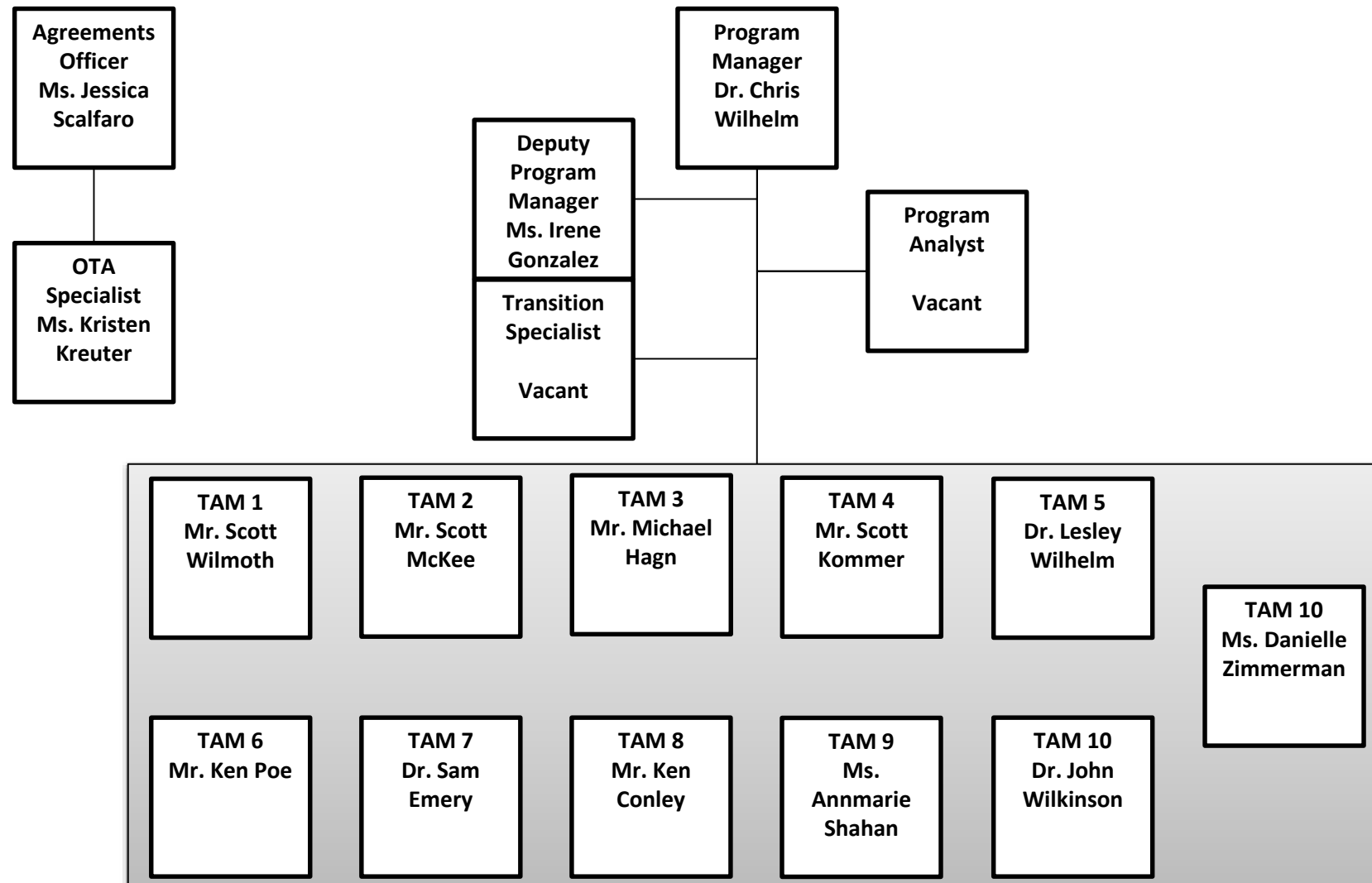




Useful NEST Information

- Open communication/collaboration a must
Government informed about industry state-of-the-art, IRAD, emerging trends
Industry understands government challenges and goals, maps capabilities and investments accordingly
- “The Basket”
Allows the government to hold approved but unfunded projects until funding becomes available, up to three years.
Sponsors can award OTA prototype projects expeditiously and at a lower administrative cost because basket projects can be placed on contract quickly without recompeting the project.
The basket also provides previously competed solutions to other government sponsors with similar needs.
- Early engagement with CMF and Consortium leadership during the awards process can solve issues before they cause significant delays
- ATI’s cost analysis support shortens the time to award

NEST Program Office





NEST Contacts

NEST Program Director

Dr. Christopher Wilhelm, christopher.wilhelm@navy.mil, 301-744-6489

NEST Deputy Program Director

Ms. Irene Gonzalez, irene.n.gonzalez@navy.mil, 973-724-8931

NEST Agreements Officer

Ms. Jessica Scalfaro, jessica.scalfaro@navy.mil, 301-744-6614



Command Corporate Operations

Presented to:

**NSWC Indian Head Division
Industry Day**

Presented by:

Angela Creasey

Corporate Operations (Code 10)

Department Head

- 26 April 2024 -

**CAPT Stephen C. Duba, USN
Commanding Officer**

**Mr. Ashley G. Johnson, SES
Technical Director**

Distribution statement A (24-081): Approved for public release; distribution is unlimited

Business Departments

COMMAND STAFF

- ✦ Leadership
- ✦ Customer Advocate
- ✦ Safety
- ✦ Office of Counsel
- ✦ Small Business Office

COMPTROLLER

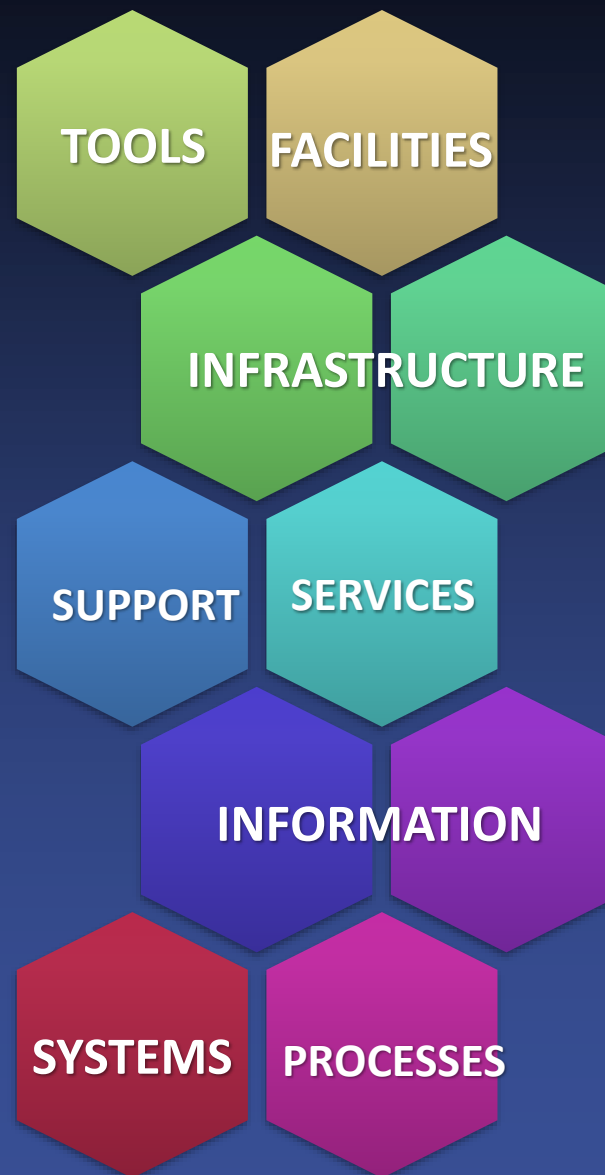
- ✦ Accounting
- ✦ Budget
- ✦ Financial Support

CONTRACTS

- ✦ Contract Support
- ✦ SAP
- ✦ Policy

Corporate Operations Divisions

- ✦ Human Resources
- ✦ EEO / Diversity
- ✦ Corporate Communications / Public Affairs
- ✦ Infrastructure
- ✦ Information Technology
- ✦ Continuous Process Improvement
- ✦ NAVSEA ERP Business Office
- ✦ Security
- ✦ Property Management/Procurement
- ✦ Corporate Business Office





Corporate Operations – Code 10

- Code 10 Contracts for:
 - Services
 - Corporate, Command and Business Operations Support
 - Language Interpreter Support
 - Readiness Assessment Decision Support
 - International, Government, University and Corporate Level career-based training & certification programs
 - Workforce Development Programs and Support
 - Leadership Development Programs and Support
 - Navy ERP Support
 - Foreign Threat Vulnerability Assessment Support
 - Learning Center and Training Facility Rental
 - Materials
 - Corporate Operations Cellular Connectivity



Corporate Operations – Code 10

- Code 10 uses Gov't purchase card for:
 - Services
 - Training, Education and Professional Development (TE&PD)
 - Advertising/Publication
 - Print services, supplies and equipment
 - Repairs < \$2,500.00
 - Subscriptions for Newspapers, Periodicals
 - License Agreements, End User License Agreements (EULA) and Terms of Service when purchasing against a Government contract (e.g. GSA, ESA SEWP, etc.)
 - Materials
 - General tools and supplies
 - HazMat
 - Safety Gear/Specialty Clothing (PPE)
 - Furniture
 - Machine/Weight/Ordnance Handling Equipment
 - Security (Containers, Safes, Vaults, Locks, Keys, Shredders for Classified Material)
 - Information Technology



Corporate Contracts

- Code 10 – Current Service/Materials Contracts (over \$250,000)

Brief Description	Functional Area	Dollar Value	Incumbent	Concludes (QTR, FY)
Corporate Operations	Administrative	\$5.5M	RMC	2 nd QTR FY28
Command Operations	Administrative	\$13.9M	RMC	3 rd QTR FY24
Business Operations	Business / Administrative	\$17.9M	RMC	3 rd QTR FY27
Cell Phone Service/Contracts	Business / Administrative	\$2.35M	CELLCO Partnership	4 th QTR FY24
Foreign Threat Vulnerability / Susceptibility Analysis	Business / Administrative	\$48.8M	GRA	4 th QTR FY24
Affordability and Readiness Assessment Decision Support	Business	\$30M	FTI	4 th QTR FY24
Language Interpreter Support	Administrative	\$698K	Maldon Language Interpreter	1 st QTR FY25
Training & Facility Rentals	Human Resources / Administrative	\$2M	CSM	1 st QTR FY25
Energetics Renaissance II	Administrative	\$8.6M	ATI	3 rd QTR FY25
Navy ERP Support	IT Operations / Administrative	\$16.5M	PSI PAX, Inc.	3 rd QTR FY27

Distribution A (24-081): Approved for public release; Distribution Unlimited



Corporate Operations – Code 102

Infrastructure

- Code 102 – Current Service/Materials Contracts (over \$250,000)

Brief Description	Functional Area	Dollar Value	Incumbent	Concludes (QTR, FY)
Environmental Chambers	Infrastructure / Construction	\$1.1M	Venturedyne Ltd.	2 nd QTR FY24
Engineering, Technical, and Programmatic Support Services (Facilities Support Services)	Infrastructure	\$100M	Eastern Research Group Inc.	1st QTR FY29
Security Door Replacement	Infrastructure / Construction	\$511K	Superior Structures LLC	2nd QTR FY25
AAE Security Upgrades	Infrastructure / Construction	\$1.7M	The Sanchez Group of Companies, LLC	1st QTR FY25
HVAC Maintenance and Repair	Infrastructure / Construction	\$16.7M	CMI Management, LLC	3rd QTR FY28
MRES	Infrastructure / Construction	\$4M	Chickasaw Defense Logistics, LLC	4th QTR FY25
HVAC Overhaul	Infrastructure / Construction	\$3.1M	Snodgrass Contracting, LLC	1st QTR FY25
Building Repairs	Infrastructure / Construction	\$75M	Kekolu Contracting, LLC	3rd QTR FY27

Distribution A (24-081): Approved for public release; Distribution Unlimited



Corporate Operations – Code 102

Infrastructure

- Code 102 - Projected Contracts (FY24-FY25)

Brief Description	Functional Area	Anticipated Solicitation (QTR / FY)	Estimated Dollar Value
Mold Remediation / Exterior Repair	Infrastructure / Construction	Q1 FY25	>\$2M - <\$7.5M
Roof Access Modification Effort	Infrastructure / Construction	Q3 FY24 Q3 FY25	>\$2M - <\$7.5M
Intelligence Reconnaissance and Tactical User-Focused Operational System Objectives	Infrastructure	Q4 FY24	~\$80M
Multiple Award Construction (MAC) Contract for Minor / Major Facility Repairs	Infrastructure / Construction	Q2 FY25	>\$7.5M - <\$50M
Conductive Flooring	Infrastructure / Construction	Q3 FY24	>\$2M - <\$7.5M
Range 6 Improvement Study	Infrastructure / Construction	Q2 FY25	>\$2M - <\$7.5M
B490 Indoor Air Quality Improvement	Infrastructure / Construction	Q3 FY24	<\$2M



Corporate Operations – Code 102

Infrastructure

- Code 102 - Projected Contracts (FY24-FY25); Cont.

Brief Description	Functional Area	Anticipated Solicitation (QTR / FY)	Estimated Dollar Value
B113 Renovations	Infrastructure / Construction	Sole Source	<\$2M
BOA Mechanical – Control Repair	Infrastructure / Construction	Q3 FY24	>\$2M - <\$7.5M
BOA Hazardous Material Testing & Removal	Infrastructure / Construction	Q3 FY24	>\$2M - <\$7.5M
BOA Fire Alarm	Infrastructure / Construction	Q3 FY24	>\$2M - <\$7.5M
BOA Electrical	Infrastructure / Construction	Q3 FY24	>\$2M - <\$7.5M
BOA Carpentry	Infrastructure / Construction	Q3 FY24	>\$2M - <\$7.5M
BOA Concrete	Infrastructure / Construction	Q3 FY24	>\$2M - <\$7.5M
BOA Fire Protection	Infrastructure / Construction	Q3 FY24	>\$2M - <\$7.5M

Distribution A (24-081): Approved for public release; Distribution Unlimited



Corporate Operations – Code 102

Infrastructure

- Code 102 - Projected Contracts (FY24-FY25); Cont.

Brief Description	Functional Area	Anticipated Solicitation (QTR / FY)	Estimated Dollar Value
Operations Support Services	Facilities	Q3 FY24	>\$7.5M - <\$50M
AAE Security Upgrades	Infrastructure / Construction	Q3 FY25	>\$2M - <\$7.5M
Fall Protection Repairs	Infrastructure / Construction	Q2 FY25	>\$2M - <\$7.5M
B1777 Building Renovations	Infrastructure / Construction	Q3 FY25	>\$2M - <\$7.5M
B900 Site Improvements	Infrastructure / Construction	Q3 FY25	>\$2M - <\$7.5M
Architect & Engineer Services	Infrastructure / Construction	Q4 FY24	>\$7.5M - <\$50M
Repairs for Environmental Chambers	Infrastructure / Construction	Q3 FY25	<\$2M
B268 / B2100 Floor Repairs	Infrastructure / Construction	Q4 FY25	>\$2M - <\$7.5M



Corporate Operations – Code 102

Infrastructure

- Code 102 - Projected Contracts (FY24-FY25); Cont.

Brief Description	Functional Area	Anticipated Solicitation (QTR / FY)	Estimated Dollar Value
B588 Neutron Radiography Lab	Infrastructure / Construction	Q1 FY25	>\$7.5M - <\$50M
B1601 2nd Floor Furniture	Facilities	Q3 FY24	<\$2M
B1581 Furniture	Facilities	Q3 FY24	<\$2M
Underwater Explosive Test Range Design	Infrastructure / Design	Q2 FY25	<\$2M
ROV / UUV Inter Mid-Size Test Tank Design	Infrastructure / Design	Q2 FY25	<\$2M
B456 Repairs	Infrastructure / Design	Q4 FY24	<\$2M
B20 Vault Renovation	Infrastructure / Design	Q4 FY24	<\$2M
Disassembly Complex Roof Repairs	Infrastructure / Construction	Q3 FY24	<\$2M



Corporate Operations – Code 102

Infrastructure

- Code 102 - Projected Contracts (FY24-FY25); Cont.

Brief Description	Functional Area	Anticipated Solicitation (QTR / FY)	Estimated Dollar Value
Disassembly Complex Power System Upgrades	Infrastructure / Construction	Q2 FY25	<\$2M
B292 MEMS Repair / Replace HVAC	Infrastructure / Construction	Q3 FY24	<\$2M
B2076 / B2151 Indoor Air Quality Improvement	Infrastructure / Construction	Q3 FY25	<\$2M

Naval Surface Warfare Center Indian Head Division (NSWC IHD) 2024 Industry Day

BREAK



Naval Surface Warfare Center Indian Head Division (NSWC IHD) 2024 Industry Day

NSWC IHD Technical Department Briefs





EOD Department

Presented To:

**NSWC Indian Head Division
Industry Day**

Presented by:

Jason Perry
Department Head
- 26 April 2024 -

CAPT Stephen C. Duba, USN
Commanding Officer

Mr. Ashley G. Johnson, SES
Technical Director

Distribution Statement A (24-073): Approved for Public Release; distribution is unlimited.



EOD Technology Center (Code D) Mission

Develop and deliver Explosive Ordnance Disposal (EOD) **knowledge, tools, equipment, their life cycle support** through an expeditionary work force that **exploits technology and information, contributes to the technical intelligence process and provides expertise** which meets the needs of the Department of Defense **EOD community**, combatant commanders and our interagency partners.

History:

- 1941 Naval Bomb Disposal
- 1953 NAVEODTECHCEN est.
- 1971 USN Single Manager for EODT&T
- 1999 NAVSCOLEOD moves to Eglin AFB
- 2006 Designated a Warfare Center (WCF)
- 2013 Merger of NSWC EODTD and IHD
- 2021 DODD 5160.62E – SECNAV EA for EOD
- 2023 SECNAVINST 5140.118 – EODTC within IHD



Co-located with:

- Asst. to Executive Manager for EODT&T (AX)
- Four Service Dets (MTAB)
- EOD Expeditionary Exploitation Unit ONE (EXU-1)
- EOD Technical Warrant Holder (SEA05)

Facilities:

- ~1,100 Acres, Stump Neck peninsula
- Engineering, Ordnance Disassembly, Information storage, Explosive testing, Chemistry lab, Prototyping and Additive Manufacturing, Receiving & Warehousing.

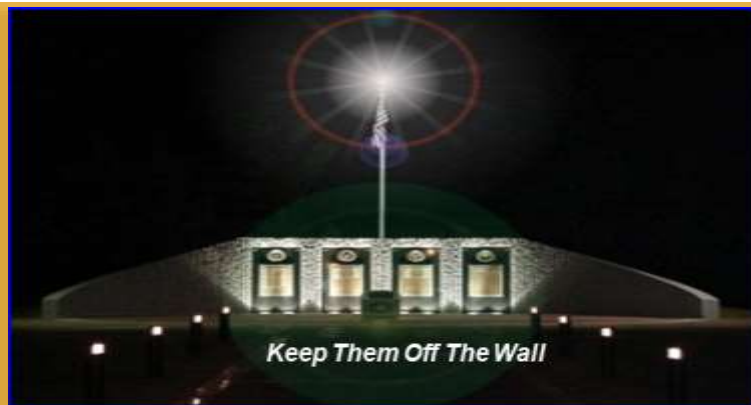
~300 civilians and 300 contractors supporting the EOD mission daily: Engineers and scientists, logisticians, technical writers, IT professionals, testers, machinists...many who are retired EOD





EOD Department

Operation, Impact and Capabilities



Lines of Operation

- **EOD Information Management**
 - Collection, analysis, development and dissemination of procedures and countermeasures information to the Joint Service EOD community
- **EOD Systems**
 - Provides EOD support across the Development and Acquisition Spectrum: S&T, prototyping, POR development, T&E, engineering agent/ISEA, support/sustainment, disposal
- **Battle Lab**
 - Provides a cycle of equipment review and evaluation to feed capability gap assessment, COTS/MCOTS buying decisions, requirements development, and technology implementation at the speed of relevance

Warfighting Impact

- Technical Data and Procedures
- Foreign Materiel Acquisition and Exploitation
- Explosives Detection Equipment Program
- Demonstration and Assessment Team and EOD Technology Assessment Team
- Underwater EOD
- EOD Unmanned Systems
- Ordnance Disrupt/Modeling & Simulation
- Anti-Terrorism/Force Protection

Capabilities and Facilities

- Co-located with EOD service detachments and Joint EOD Executive Agency Support office
- 24-7 / 365 warfighter call-back ability to Technical Support Center
- Explosive test and robotics test ranges
- Magnetic Signature Test Facility
- Prototyping facilities to accelerate ideas/rapid support for 3D printing
- Explosive Chemistry Laboratory
- Electronics Laboratory
- EOD Library
- Disassembly complex

EOD Department Contracts



💣 Services

- EOD Countermeasures Support
- Information Technology Services
- Logistical Support (COLTS)
- Explosive Detector Support
- Robotics Support

💣 Materials

- Weapon Racks
- Deployable Armories
- Weapons Storage Inserts
- Dehumidifiers
- MTRS 2 Production & Repairs
- Flexible Cyber-Secure Radio (FlexCSR) systems
- MK32 X-Rays
- IdentiFINDER Repairs
- AN/PLT Repairs

Distribution Statement A (24-073): Approved for Public Release; distribution is unlimited.



EOD Department

Current Service/Materials Contracts (over \$250K)

Brief Description	Dollar Value	Incumbent	Concludes (QTR, FY)
Logistical Support (COLTS)	\$10M	GVI	4th QTR FY26
Information Technology Services	\$52.6M	Resource Management Concepts Inc.	3rd QTR FY24
MK 32 X-Ray Generators	\$21M	Golden Engineering	4rd QTR FY28
Countermeasures Support	\$24.6M	Resource Management Concepts Inc.	4th QTR FY27
Flexible Cyber-Secure Radio (FlexCSR)	\$58.5M	Tomahawk Robotics Inc.	3rd QTR FY28
Cabinets, Lockers, Bins and Shelving	\$820K	Burke Handling System, Inc.	3rd QTR FY25
Maintenance Support for PLT-4	\$6.1M	Peraton	2nd QTR FY26
Manufacturing & Service Acquisition	\$40M	United Support Solutions	4th QTR FY25
Maintenance Support & Acquisition IdentiFinder (AN/PDX2)	\$53.9M	TeleDyneFlir	4th QTR FY27



EOD Department

Current Service/Materials Contracts (over \$250K)

Brief Description	Dollar Value	Incumbent	Concludes (QTR, FY)
Capabilities Based Values Model (CBVM)	\$1.1M	Perduco	4th QTR FY24
MTRS 2 Production & Repairs	\$10.6M	Qinetic	2nd QTR FY26
RONs Support	\$1.3M	Peraton	4th QTR FY25
Dehumidifiers	\$4.9M	Munters	4th QTR FY27
Weapon Racks	\$3M	Brooks & Perkins	4th QTR FY27
Deployable Armories	\$47.5M	Armag Corporation	4th QTR FY27
Weapons Storage inserts	\$500K	Exotic Rubber	1st QTR FY28
DAT Support Services	\$58.8M	American Systems	4th QTR FY27



EOD Department

Projected Contracts (FY24-FY25)

Brief Description	Anticipated Announcement Date (QTR / FY)	Estimated Dollar Value
FMS MAS IDIQ (Supplies/Components ISO FMS programs)	3rd QTR FY25	\$50-\$70M
Navy Configuration of the MTRS II systems	3rd QTR FY25	\$25M-\$30M
IT Service follow-on contract	4th QTR FY24	\$95- \$100M
Chemical Detector Sustainment	4th QTR FY24	\$500K - \$1M
Maintenance of Analytical Instruments	3rd QTR FY25	\$400 - \$500K



Naval Surface Warfare Center Indian Head Division (NSWC IHD) 2024 Industry Day

Presented to:

**NSWC Indian Head Division
Industry Day**

Presented by:

Mr. Aaron Gentili

Deputy Department Head, Acting
- 26 April 2024 -

**CAPT Stephen C. Duba, USN
Commanding Officer**

**Mr. Ashley G. Johnson, SES
Technical Director**

Distribution statement A (24-075): Approved for public release; distribution is unlimited



Energetics Manufacturing (M) Department

Lines of Operation

- Energetic development, scale-up and qualification
- Design, development and low-rate initial production/full-scale production of energetic materials and ordnance end-items
- Flexibility to make products from mortars to rockets through the same processing line: from 5 grams to more than 1 million pounds
- Maintains in-house energetics processing capabilities and engineering expertise to:
 - Act as sole source, second source and emergency supplier
 - Provide expertise allowing program offices to act as “smart buyers” for the DoD, foreign military sales and other customers



Warfighting Impact

- IHD is the Navy’s only public surge energetics manufacturing site with the capabilities and expertise needed for wartime mobilization
- Provider of Otto Fuel II torpedo fuel
- CAD/PAD manufacturing and centralized stock point
 - Sole stock point of all Navy CAD/PADs
 - Able to ship parts anywhere around the globe

Capabilities and Facilities

- Cast-composite propellant and polymer-bonded explosive mixing/casting
- Chemical manufacturing and scale up
- Pressed explosives and warheads
- Kitting facilities
- Cartridge igniter and CAD/PAD assembly
- Solventless extrusion
- Decon and disposal

Energetics Manufacturing (M) Department

M Department Contracts for:

– Services

- Engineering support
 - Engineering Support
 - Laboratory/Testing Support
 - Safety Support
 - Energetics Manufacturing Support
 - Project Management Support
- Operations support
 - Energetic Materials Operations Support
 - Functional and Administrative Support
 - Quality Assurance Support
 - Logistics and Ordnance Inventory Management Support
- Equipment design and start up
- Wastewater treatment

M Department

M Department Contracts for:

– Materials

- Metal Parts

- Large scale rocket motor components

- » Large diameter tubes

- » Tooling

- » Carts and dollies

- Shipping Containers

- Kitting components

- Components/Assemblies for Cartridge Actuated and Propellant Actuated Devices - Aircrew Escape Systems – Stores release

- » Small, high tolerance, small volume typically lathe parts

- » Large L/D precision tubes

- » Small caliber, high tolerance, thin wall cups

M Department

M Department Contracts for:

- Materials (cont.)

- Chemicals

- **Acids**

- » Nitric Acid/White Fuming Nitric Acid
 - » Concentrated Sulfuric Acid
 - » Oleum

- **Bases**

- » Sodium Hydroxide, aqueous
 - » Sodium/Potassium Carbonate/Bicarbonate

- **Oxidizers**

- » Ammonium Nitrate
 - » Ammonium Perchlorate
 - » Sodium Nitrate

- **Solvents**

- » Ethyl Acetate
 - » Acetone
 - » Methanol/Ethanol
 - » Acetonitrile

- **Amines**

- » Diethenolamine
 - » N-(n-methyl/ethyl/butyl)ethanolamine

- **Polyols**

- » 1,2 Propylene glycol USP grade
 - » 1,2,4 Butanetriol

M Department

M Dept. – Current Service/Materials Contracts (over \$250,000)

Brief Description	Dollar value	Incumbent	Concludes (QTR, FY)
Operations Support Contract	\$49 million	Cruz Associates	2 nd QTR, FY 24
Analytical, Engineering and Technical Support Services	\$38.5 million	Eastern Research Group (ERG)	4 th QTR, FY 25
Decontamination, Demilitarization and Demolition Analytical, Technical and Management Support	\$22 million	VSE Corporation	3 rd QTR, FY 24
Solidworks CAD Software and Training	\$0.5 million	Tri-Mech Solutions	3 rd QTR, FY25

M Department

M Dept. - Projected Contracts (FY24-FY25)

Brief Description	Anticipated Announcement Date (QTR / FY)	Estimated Dollar Value
Operations Support	3 rd QTR / FY 24	\$75 million
Mk 70 Fin Kits	2 nd QTR / FY 24	\$1-7 million
Chemicals	1 st QTR / FY 25	\$40 million
Otto Fuel Production	4 th QTR / FY 24	\$15 million
Engineering Services Support	1 st QTR / FY25	\$225 million
Shipping Containers	2 nd QTR / FY 24	\$1-7 million
Mk 85 Nozzles	4 th QTR / FY 24	\$1-7 million



Research, Development, Test & Evaluation Department

Presented to:

**NSWC Indian Head Division
Industry Day**

Presented by:

AARON JENKINS

Department Head, Acting
- 26 April 2024 -

**CAPT Stephen C. Duba, USN
Commanding Officer**

**Mr. Ashley G. Johnson, SES
Technical Director**

Distribution statement A (24-083): Approved for public release; distribution is unlimited

RDT&E (R) Department



Capabilities and Facilities

- Detonation science facility for controlled, dynamic research of energetic materials
- Material properties laboratory and ordnance dissection for health analysis and aging
- Non-destructive evaluation and analytical chemistry laboratories for in-house lot acceptance and quality assurance of products
- Condition-controlled laboratories for high-fidelity research and development (R&D)
- Chemistry and biology labs (up to BSL-3), collective protection prototypes and over-water range testing for Chemical, Biological, and Radiological Defense (CBRD)

Warfighting Impact

- Integrated signatures program helps Warfighter diagnose threat to the “left of boom”
- Advanced propulsion R&D will lead to future advances in weapon range and flexibility
- CBRD protects ships and facilities from attack and contamination

Lines of Operation

R&D (Code R1)

- Energetic materials science and technology to develop new chemicals, explosives, propellants and performance measurement concepts

CBRD (Code R2)

- Full lifecycle support for CBRD in a maritime environment

Test and Evaluation (Code R3)

- Detonation and combustion test and evaluation for performance, lifecycle analysis and lot acceptance



R Department

R Department Contracts for:

– Services

- Service and repair maintenance
 - X-ray and Analytical Equipment
 - Temperature conditioning chambers
- Administrative and system support
 - Technical Writers
 - Fleet Support
 - Logistics
 - IT/Inventory Management

– Materials

- Purchase of New Equipment (Diagnostics, Analytical, Decontamination, etc.)
 - One-time purchases and Indefinite Quantity
- Components/assemblies for Cartridge Actuated and Propellant Actuated Devices (CAD/PADs)
 - Aircrew escape systems
 - Stores/countermeasures release
- HAZMAT/Chemicals/Gases



R Department

R Department uses government purchase card for:

– Services

- General machining and modifications
- Remediation
- Disposal
- Equipment repair

– Materials

- HAZMAT/Chemicals
- Safety glasses and safety shoes
- Packaging materials/labels
- Industrial supplies:
 - Electrical wires, pipes, motors
 - PLC components
 - Hydraulic and pneumatic components
- General tools and supplies
- Small equipment
- Information Technology

Distribution A (24-083): Approved for public release. Distribution is unlimited.



R Department

R Dept. – Current Service/Materials Contracts (over \$250,000)

Brief Description	Dollar value	Incumbent	Concludes (QTR, FY)
CBRND Engineering Support	\$43 Million	PRISM Maritime, LLC	3 rd QTR FY26
Environmental Chamber (IDIQ)	\$9.9 Million	VentureDyne LTD, Thermotron Industries	2 nd QTR FY26
Phantom HS Camera (IDIQ)	\$4.6 Million	Vision Research, Inc.	3 rd QTR FY25
AIRGARD Service	\$3 Million	KD Analytical Consulting, LLC	2 nd QTR FY27
MIDAC Spectrometer Service (IDIQ)	\$2.1 Million	MESH, Inc.	3 rd QTR FY26
Griffin 460	\$1.9 Million	FLIR Detection, Inc.	4 th QTR FY26
SMDC Test Tips (IDIQ)	\$1.6 Million	PacSI, Co.	4 th QTR FY24
Low Energy X-Ray System Maint & Repair	\$1.3 Million	Newco, Inc.	4 th QTR FY25
Linatron M3A Maint. & Repair	\$1.3 Million	Varex Imaging Corporation	4 th QTR FY25
JBPDS for Biological Detection System (IDIQ)	\$1 Million	Chemring	4 th QTR FY25



R Department

R Dept. - Projected Contracts (FY24-FY25)

Brief Description	Anticipated Announcement Date (QTR / FY)	Estimated Dollar Value
CTLIMS Support	3 rd QTR FY24	\$2.3 Million
Admin Support	3 rd QTR FY24	\$350K
Phantom Camera Maint & Repair (IDIQ)	3 rd QTR FY24	
SMDC Test Tips (IDIQ)	1 st QTR FY25	\$1.6 Million
M98 Filters	1 st QTR FY25	\$40 Million
Detonators	3 rd QTR FY25	\$250K
Pentolites	3 rd QTR FY25	\$250K



Systems Engineering Department

Presented to:

**NSWC Indian Head Division
Industry Day**

Presented by:

Ms. Jessica Schombs

Technical Acquisition Specialist

- 26 April 2024 -

**CAPT Stephen C. Duba, USN
Commanding Officer**

**Mr. Ashley G. Johnson, SES
Technical Director**

Distribution statement A (24-079): Approved for public release; distribution is unlimited

NAVSEA WARFARE CENTERS

Systems Engineering (E) Department

MISSION

Development, support and delivery of energetic system solutions across the full acquisition cycle to provide the warfighter with kinetic advantage

VISION

Strengthen the Arsenal as the Nation's resource for energetic systems by providing unparalleled technical, acquisition and logistical products.



WARFIGHTING IMPACT

- Engineering design, development, support and delivery of energetic system solutions across the full acquisition cycle to provide the warfighter with a kinetic advantage
- Technical, acquisition and logistic product support across all domains (Surface, Undersea, Air, Land/Expeditionary, Space)
- Weapons Maintenance, Life Cycle Product Support and Ordnance Assessments

TECHNOLOGIES, CAPABILITIES AND FACILITIES

- Micro-Electromechanical Systems (MEMS) Explosive-Certified Cleanroom
- Additive Manufacturing (3D printing)
- High Performance Computing (HPC) for Advanced Modeling and Simulation
- UAS energetic payload integration and test
- Explosively Formed Penetrator (EFP) liner fabrication
- Weapons Reverse Engineering
- Electrostatic Discharge Assessment
- Artificial Intelligence/Machine Learning
- Reactive Materials, Novel Energetics
- Unmanned Systems
- System Safety

E Department

Products Supported Across All Domains

SURFACE DOMAIN



- Standard & Harpoon Missiles
- MK-53 Decoy Launching System (NULKA)
- Tomahawk Missiles
- MK-45 5-inch Gun Weapon System (GWS)
- Evolved SeaSparrow Missile (ESSM)

EXPEDITIONARY/ LAND DOMAIN



- High-Reliability Dual-Purpose Improved Conventional Munitions Replacement (HRDR)
- Anti-Structural Munition (ASM) Grenade
- Shoulder-Launched Multipurpose Assault Weapon (SMAW)
- Assault Weapon Assault Breaching System
- Electronic Blasting Caps (ECAPS)
- Tube-launched Optically-tracked Wireless-guided (TOW) & Javelin Missiles
- Mine Countermeasures Systems

AIR DOMAIN



- Cartridge/Propellant Actuated Devices (CAD/PAD)
- Sidewinder Missile
- MK 66 Rocket
- Jet/Rocket Assisted Take-Off (JATO/RATO)
- Advanced Medium-Range Air-to-Air Missile (AMRAAM)
- Hypersonic warhead vehicle



UNDERWATER DOMAIN



- Otto Fuel for Torpedoes
- AN/BST-1 Submarine Emergency Communications Transmitter (SECT) Buoy
- Heavyweight & Lightweight Torpedoes (HWT / LWT)
- Countermeasures Anti-Torpedo (CAT)
- MK-77 Gas Generator
- Mine Mission Packages
- Airborne & Barracuda Mine Neutralization Systems
- Clandestine Delivered Mine (CDM)
- Compact Encapsulated Mine (CENCAP) Warhead
- Vertical Launch Anti-Submarine Rocket (ASROC)

SPACE DOMAIN



- MK-70 & MK-11/12 Boosters

E Department

- E Department Contracts for:

- **Services**

- Configuration Management Support
 - System Safety Support
 - UNIX and PC (Windows OS) Information Technology Hardware Support
 - Electro Static Discharge Engineering and Project Management Support
 - General Software Engineering Support for Performance Specification and Code Analysis
 - Ordnance Assessment Test Support
 - Systems Engineering and Technical Assistance (SETA) in the areas of mechanical, electrical, RF, and software development (C, C++, Python, MicroPython, Java, and JavaScript). As well as program management.
 - Support training development and evaluation for UXS pilots
 - TAK development support

- **Materials**

- Metal Parts
 - Components/Assemblies for CAD/PADs
 - Aircrew Escape Systems
 - Stores/Countermeasures Release
 - 2.75" Rocket Launchers
 - Electronics Board Assembly
 - Printed Circuit Boards
 - Composite components and structures for unmanned systems
 - Tactical radios and custom radios
 - UXS for experimentation and integration
 - Energetic components for warheads, fuzes, and remote firing devices

- **Facilities / Equipment (ECMP-related)**

- Conditioning chambers for OA
 - UAS operational space battery charge
 - AWS/AZURE cloud ML/AI and Analytics Infrastructure
 - Software as a Service support
 - On-site ESD Test Capability
 - Classified Additive Manufacturing Transition and Prototyping Capability
 - Hyperballistic Test Range
 - Mine Test Facility
 - Metal Deposition and Wet Acid Etching System MEMS
 - Improved logistics and advanced prototyping capability
 - BOT learning Lab
 - DoD Supercomputing Resource Center Designated Facility
 - IHD Classified Capability upgrade and conference center, including CNET
 - Test range with FRIA airspace for UxV experimentation, evaluation, integration, and training including advance flight termination system requirements for autonomous swarm tests

E Department

- E Department: Current Service/Materials Contracts (over \$250,000)

Brief Description	Dollar value	Incumbent	Concludes (QTR, FY)
Engineering / Technical / Analytical / Logistic / Testing / Management Support	\$23M	Advanced Tech & Research *	4 th QTR FY27
	\$1.8M	BAE Systems *	2 nd QTR FY26
	\$5M	Bruker Detection Corporation *	4 th QTR FY24
	\$20M	EHS Technologies *	2 nd QTR FY26
	\$8M	Exodynamics Tech Inc *	1 st QTR FY25
	\$10M	National Technical Systems *	4 th QTR FY26
CAD/PAD Technology Development and Ordnance Assessment	\$22M	Ametek Ameron *	4 th QTR FY26
	\$22M	Argent Energetics Tech *	2 nd QTR FY26
	\$8M	Eastern Research Group *	1 st QTR FY27
	\$30M	Ensign-Bickford A&D *	3 rd QTR FY26
	\$22M	General Dynamics OTS *	2 nd QTR FY27
	\$11.7M	Innovative Mat'ls & Process *	2 nd QTR FY26
	\$6M	Martin Baker *	2 nd QTR FY26
	\$22M	Nammo Defense Systems *	3 rd QTR FY26
	\$11.7M	Networks Electronic Systems *	4 th QTR FY26
	\$22M	Stratus Systems *	4 th QTR FY26
	\$30M	UPCO *	2 nd QTR FY26

E Department

- E Department: Current Service/Materials Contracts (over \$250,000)

Brief Description	Dollar value	Incumbent	Concludes (QTR, FY)
Information Technology (IT) Systems	\$8M	Garcia Information Systems *	2 nd QTR FY26
	\$13M	SAIC Gemini	4 th QTR FY26
Unmanned Aerial Vehicle	\$949k	Agentase	3 rd QTR FY26
Explosive Bolt	\$9.4M	Chemring Energetic Devices	4 th QTR 2025
Fuzing Technology Development	\$2.6M	Energetics Technology Center	4 th QTR FY24

E Department

- E Department: Projected Contracts (FY25-FY27)

Brief Description	Anticipated Announcement Date (QTR / FY)	Estimated Dollar Value
Information Technology (IT) Systems	2nd QTR FY25	~ \$12M
Ordnance Testing	2nd QTR FY26	~\$10M
CAD/PAD JPO IDIQ	2 nd QTR FY25	~\$20M
Next Generation Fuzing Technology Development	3rd QTR FY24	~2.6M

*Will be included in CAD/PAD JPO IDIQ

Naval Surface Warfare Center Indian Head Division (NSWC IHD) 2024 Industry Day

Thank You!!!



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