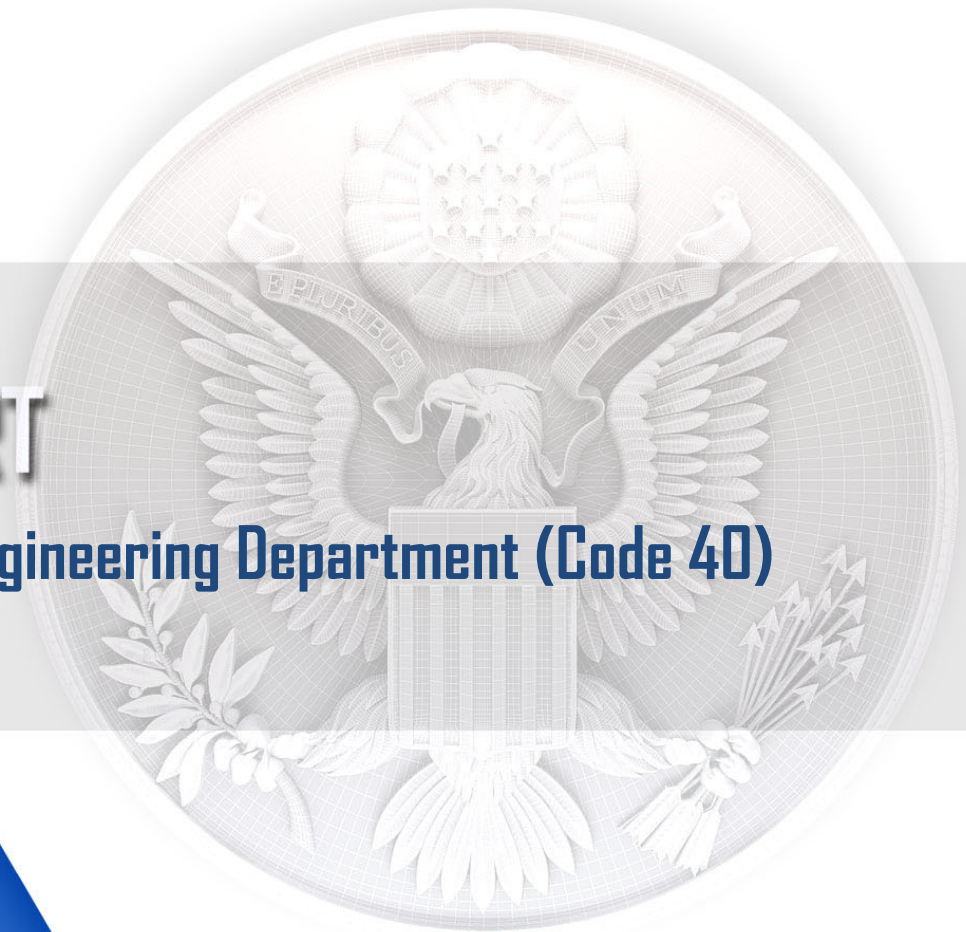




NUWC DIVISION, KEYPORT

Undersea Systems & Sustainment Engineering Department (Code 40)

MR. DAVID COLEMAN, DEPARTMENT HEAD



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POC: Mr. David Coleman

Department Strategy

We are the Undersea Systems & Sustainment Engineering Department

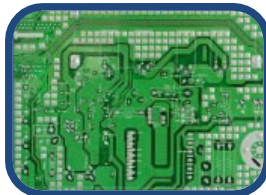
Mission:

We develop, field, and sustain innovative solutions optimizing Warfighter readiness and effectiveness

Department Integrated Approach for Sustainment Support



Waterfront Fleet Support



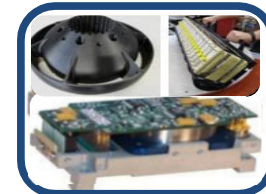
Obsolescence Management



Submarine In-Service Engineering



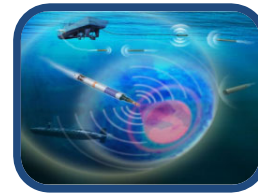
Fleet Technical Support & Custom Software Solutions



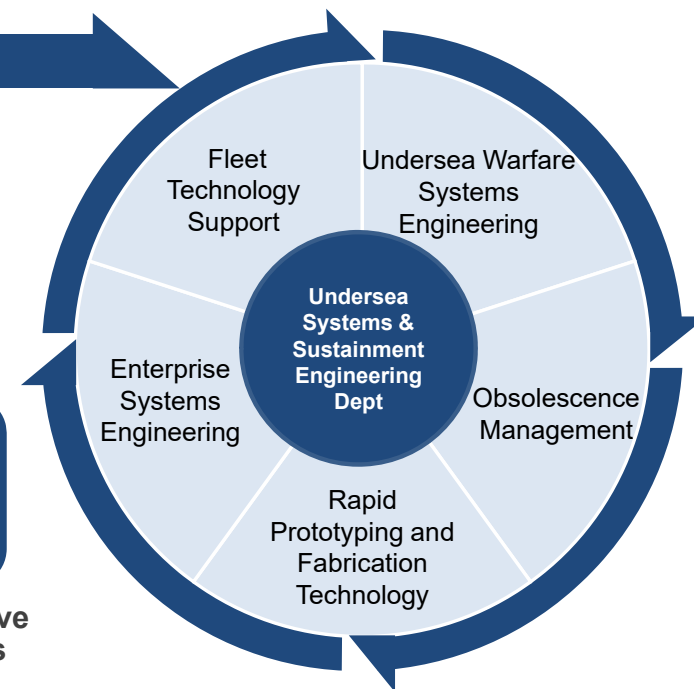
Rapid Prototyping & Custom Engineered Solutions



Industrial Base Maintenance Innovation



Undersea Defensive Warfare Systems



Seaport Service Contracts

N00178-04-D-4018 In-Service Engineering (ISE)/Integrated Logistics Support (ILS) Support Services

Logistics and engineering support across the NUWC Division, Keyport

Awarded: 01 May 2017 / Concludes: 30 April 2023

BAE Systems

Base Year Plus 3 option years (extension Mod), CPIF

Award in process

N00178-19-D-7406 Alteration Installation Team (AIT) Support Services

Installation and fabrication services on surface and subsurface platforms at Shipyards and key fleet concentration areas within the Continental U.S. (CONUS) and Outside the Continental U.S. (OCONUS)

Awarded: 14 July 2020 / Concludes: 13 July 2025

Continental Tide

Base Year Plus 4 options years

Evaluation is in process for a possible re-compete

N00178-19-D-8173 Technical Software Support (TSS) Services

Software development and maintenance

Award: 30 Nov 2021 / Scheduled Conclusion: 29 Nov 2025

NetSimCo

Base Year Plus 3 option years, LOE

There will be a re-compete

Other Keyport Seaport Service Contracts Leveraged

Engineering Support Services (ESS)

Business and Administrative Services Support (BASS)

Contracts Leveraged Outside of NUWC Keyport

DLA Tailored Logistics Support

NASA SEWP

Enterprise Systems Engineering

Major Products & Services

- Human Performance Engineering, AR/VR/MxR Training Systems and Performance Support Tools
 - **Content Development and Graphic Design (TSS contract)**
- Training Front End Analysis (FEA), Instructional Media Design/Creation, Curricula Analysis, Design, Development, Implementation and Evaluation
 - **Master Training Specialist/Training Specialist Support (ISE contract)**
- Enterprise Software Applications and Associated Services
 - Advanced Skills Management (ASM) Training Management System (TMS)
 - Nosis/Ship-to-Shore Data Exchange (S2DE) Business Management System Hosting/Integration
 - Shop Workload Management System (SWMS), Automated Process Control System (APCS), and Heavyweight Torpedo Technical Data System (HTTDS) Production Management Systems
 - **Software Development, IT Support, Cybersecurity and Logistics Support (TSS and ISE contracts)**
- Required Skills
 - Software: C#, Java, JavaScript, AngularJS, SQL, VB.Net, Unity, XR Toolkit, Maya, 3DS Max, Powershell, Java 8 EE, JSP, JavaScript, PL-SQL, XML, React framework
 - IT: Active Directory, VMWare, Oracle, JBoss, MDE/IDE, MS SQL Server Admin, MS IIS Admin, Jira, Git, Enterprise Security System (ESS), Docker/Kubernetes
- Software Procurements: Redhat, Oracle, VMware, Citrix, Veeam, Solar Winds
- Hardware Procurements: Servers, Network Attached (NAS) HPE StoreEasy Hard Drives, Server Memory, Qlogic Marvel, Adapters, Laptops

Rapid Prototyping and Fabrication Technology

Major Products & Services

- Rapid Fabrication (Innovation, T&E, Process Improvement)
- Custom Engineering Solutions (CES)
 - Design & Manufacturing Engineering
 - Reverse Engineering (Mechanical and Electrical)
 - Assembled Replacement Integrated Circuit (ARIC)
- Advanced Manufacturing
 - Laser Ablation
 - Automated / Robotic Industrial Processes
 - Laser Welding / Cladding / Plasma Spray / Cold Spray / Thermal Spray
 - Additive Manufacturing
- Production Capabilities
 - Advanced Machining; Welding
 - Encapsulated Cables
 - Coatings
 - Electronic Circuits and Cables
 - Metal Finishing

Material Procurements:

- Relays, potting compound, accelerometer housing, gaskets, connectors etc.

Services:

- Troubleshoot and repair, calibration, equipment maintenance and technical support

Undersea Warfare (USW) Systems Engineering

Electronic Acquisition and Sensors Production

Technology Insertion Hardware (TIH) 16/18 (N0025314D0004) and TIH 20/22/24 (N0025319D0004)

Production contracts for design and manufacture of display, workstation, processor, and network systems that provide computer processing and memory, data storage and extraction, and input/output interfaces to support specific software applications of Navy Combat Control and Sonar Systems.

Future Contracts: TIH 26 (2024 Award)

New Technical Insertion Hardware (TIH) contract for submarine SONAR and Fire Control Support upgrades/new constructions required by design years 2026

Electronic Systems Services

Future Contracts (2023 Award):

- Next Generation Gertrude (NGG): A Form, Fit Function replacement for the Legacy AN/WQC-2/2A used for communication between surface ships and submerged vessels. This system will follow STANAG requirements for voice and continuous wave (CW) communications.
- Next Generation Fathometer (NGF): (2023 Award): A recompile for the production, testing, and delivery of a SONAR (Sound Navigation and Ranging) Sounding System with Mounting Fixture, Remote Digital Depth Display(s), Sonar Signal Simulator (test set with cable, if applicable) and associated technical documentation for ARLEIGH BURKE Class Destroyers and other Navy Ship Classes.

Undersea Warfare (USW) Systems Engineering

Acoustic Device, Countermeasure (ADC)

Acoustic Countermeasures protect the submarine fleet from acoustic-homing torpedoes. Both 3-inch and 6-inch variants are produced.

Hardware Design and Development Contracts for countermeasures:

In production: ADC MK 2 MOD 7, ADC MK 3 MOD 1, ADC MK 4 MOD 1

In development: ADC MK 5 MOD 0

Current Large Technical Contracts

- N0025318C0006 ADC MK3/4
- N0025322D0002 ADC MK2

Future Large Technical Contracts

- ADC MK3/4 (2024 Award being completed by SEA02)



Obsolescence Management

Major Products & Services

- **Obsolescence Management Information System (OMIS)**
 - Obsolescence management system connecting various data sources for determining various supply chain risk areas (distributor stock, reliability, availability, configuration etc.)
 - Utilizes the TSS contract for software development and sustainment of the OMIS database
 - Services contracted out to multiple services for integration of production status and/or potential stock of components used in DoD systems
- **Diminishing Manufacturing Sources and Material Shortages (DMSMS) Support for over 70 DoD programs**
 - Utilizes services provided under the ISE/ILS services contract for researching of solutions impacted by obsolescence
- **Big Data Analysis – Digitized Sustainment**
 - Developing capabilities to forecast obsolescence and predicting lifecycles of disruptive technologies
 - Researching supply chain illumination capabilities of parts monitored to identify additional risks beyond just obsolescence

Questions?

We are here to support!
Undersea Systems & Sustainment Engineering Department



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