



Naval Undersea Warfare Center Division Newport

Platform & Payload Integration Department: Code 40 Industry Day

Introduction

Presented at:
NUWC Division Newport
Building 80 Gymnasium

23 January 2018



Agenda



- **Introduction/Ground Rules**
- **Disclaimer Statement**
- **Code 40 Department Overview**
- **New Contracts Strategy**
- **DIVNPT Competition and Small Business Overview**
- **Conclusion/Wrap-up**
- **Code 40 Facility Tour**

Introduction/Ground Rules

- **Introduction of Participants**
- **Intent of this Industry Day is to Encourage competition by:**
 - **Providing technical information to provide potential offerors a better understanding of the technical requirements for Prime and Subcontracting opportunities**
 - **Ensure all potential offerors receive, and have access to, the same information**
- **Technical “Q&A” is encouraged**
 - **Q&A will be answered, either today or via the respective Government Point of Entry (SeaPort-e or FBO)**
 - **Q&A/Feedback Forms**
 - **No questions about incumbent contractor**



Introduction/Ground Rules (cont'd)



- All attendees recommended to sign-in (this is voluntary)
- Please silence cell phones and pagers. No personal recording
 - Q&A will be recorded, typed, and posted to the respective Government Point of Entry (SeaPort-e or FBO)
- The Attendees list will be posted to the respective Government Point of Entry (SeaPort-e or FBO)
- This briefing will be posted to the respective Government Point of Entry (SeaPort-e or FBO) and the NUWCDIVNPT Electronic Reading Room:
 - <http://www.navsea.navy.mil/Home/Warfare-Centers/NUWC-Newport/Partnerships/Business-Partnerships/Electronic-Reading-Room>



Introduction/Ground Rules (cont'd)



- **DO NOT directly contact the NUWC technical code after today**
 - **All further dialogue will be accomplished via the Q&A feature on the respective Government Point of Entry (SeaPort-e or FBO)**
- **Technical requirements contained in this briefing are presented as a summary**
 - **Full/updated technical requirements will be provided in the Request for Proposal (RFP)**

Disclaimer Statement

- Remarks today by Government officials involved in the Code 40 Industry Day should not be considered a guarantee of the Government's course of action in proceeding with the acquisition
- The informational briefing shared today reflects current Government intentions and is subject to change based on a variety of circumstances

The formal solicitation, when issued, is the only document that should be relied upon in determining the Government's requirements



Naval Undersea Warfare Center Division Newport



Platform & Payload Integration Department: Code 40 Industry Day

Department Overview

23 January 2018



Agenda



- **Mission & Vision**
- **Code 40 Organizational Structure**
- **Code 40 Workforce**
- **Code 40 FY18 Funding Profile**
- **Code 40's Roles & Responsibilities**
- **The Code 40 Product Line**
- **Transformational Alignment**



NUWC Division Newport

Undersea Superiority Today and Tomorrow

We research, develop, test, evaluate, engineer, analyze, and deliver undersea warfare capabilities to expand United States Navy readiness

PEOPLE

Empower our diverse team of world-class professionals

PROCESS

Optimize speed, agility, and rigor of our technical and business processes

RESULTS

Ensure fleet readiness today and innovate for next generation systems tomorrow

EXPAND THE ADVANTAGE
The Force Behind the Fleet
We design, build, deliver, and maintain ships and systems on-time and on-cost for the United States Navy

MISSION PRIORITIES

ON-TIME DELIVERY OF SHIPS & SUBMARINES

CULTURE OF AFFORDABILITY

CYBERSECURITY

PEOPLE

HIGH VELOCITY LEARNING

Navy's Design for Maintaining Maritime Superiority

Strengthen Naval Power

Achieve High Velocity Learning

Strengthen Navy Team

Expand and Strengthen Our Network of Partners

NUWC Focus Areas

Execute with Excellence
Continuously Build and Shape a Capable Workforce

Drive a Culture of Affordability
Shape and Maintain Technical and Business Capabilities

Improve Cybersecurity in Products and Processes

NAVY

NAVSEA

NUWC



Code 40 - Platform & Payload Integration Department



Our Vision Draft

Exploit the Ocean Interface for USW Platform and Payload Superiority

Our Mission Draft

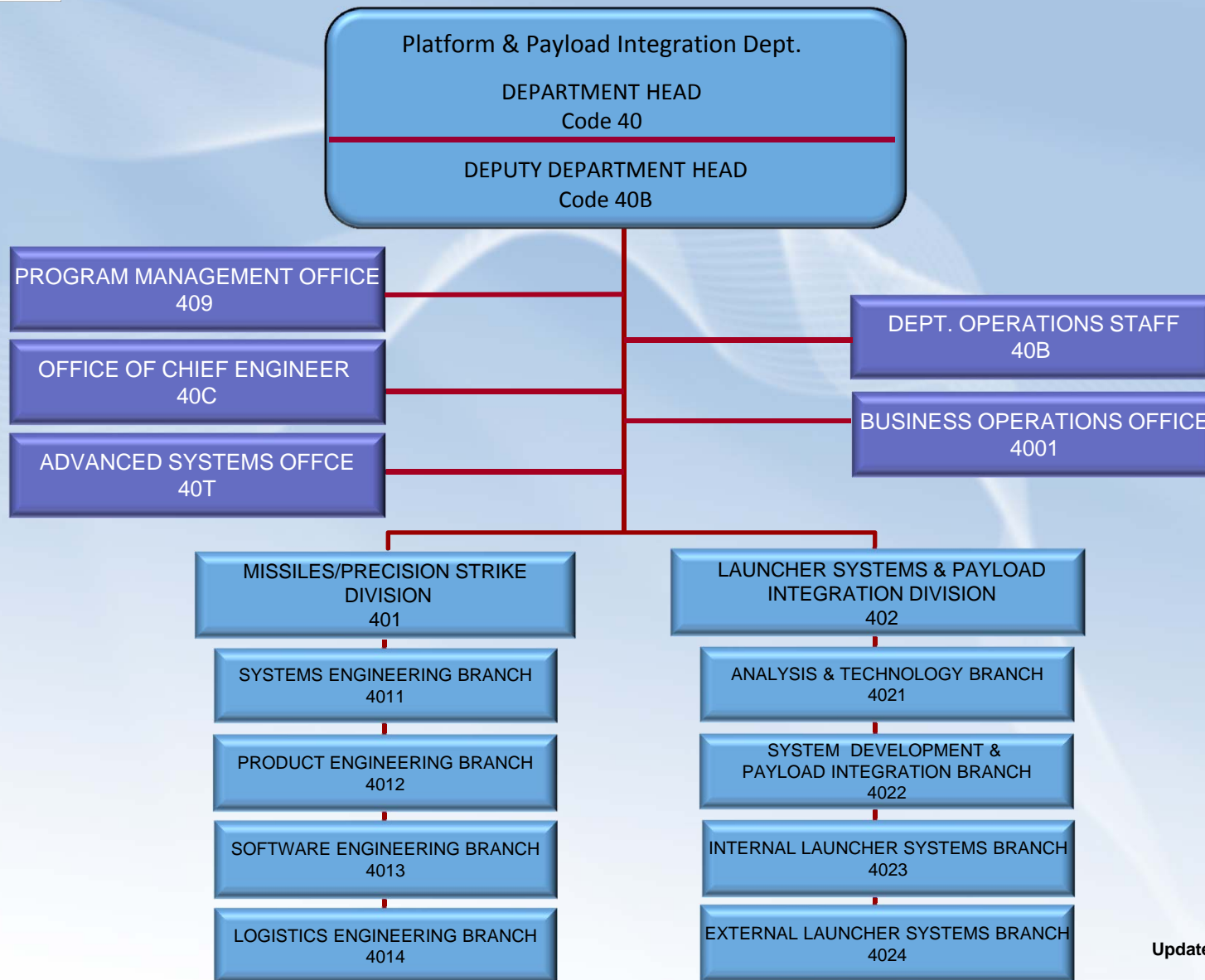
Exercise full-spectrum technical excellence to deliver USW platform integration and payload deployment solutions.

Tenets Draft

Integrity / Collaboration / Value-Driven

Any Payload, Any Platform, Any Time

Code 40 Organizational Structure

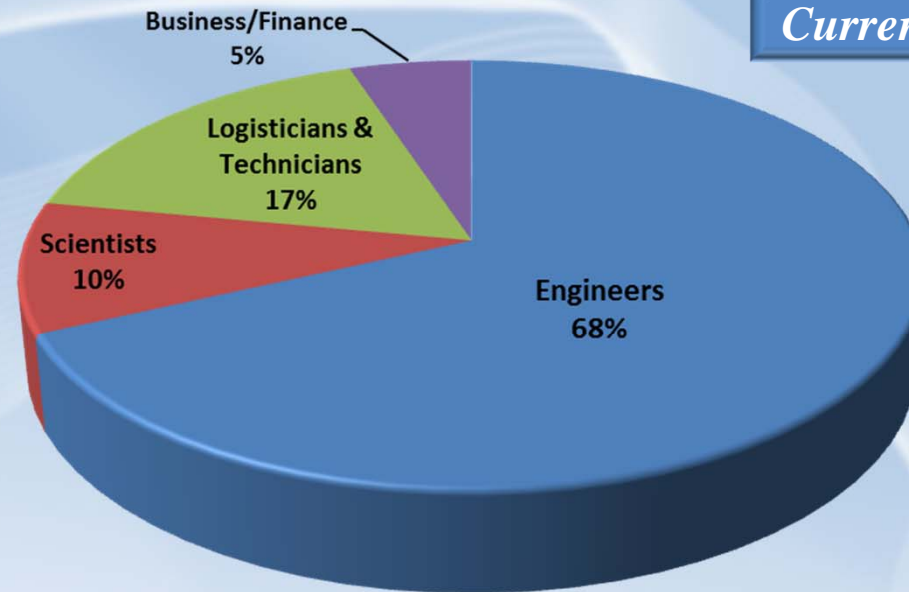


Updated 1/23/2018

Code 40 Workforce



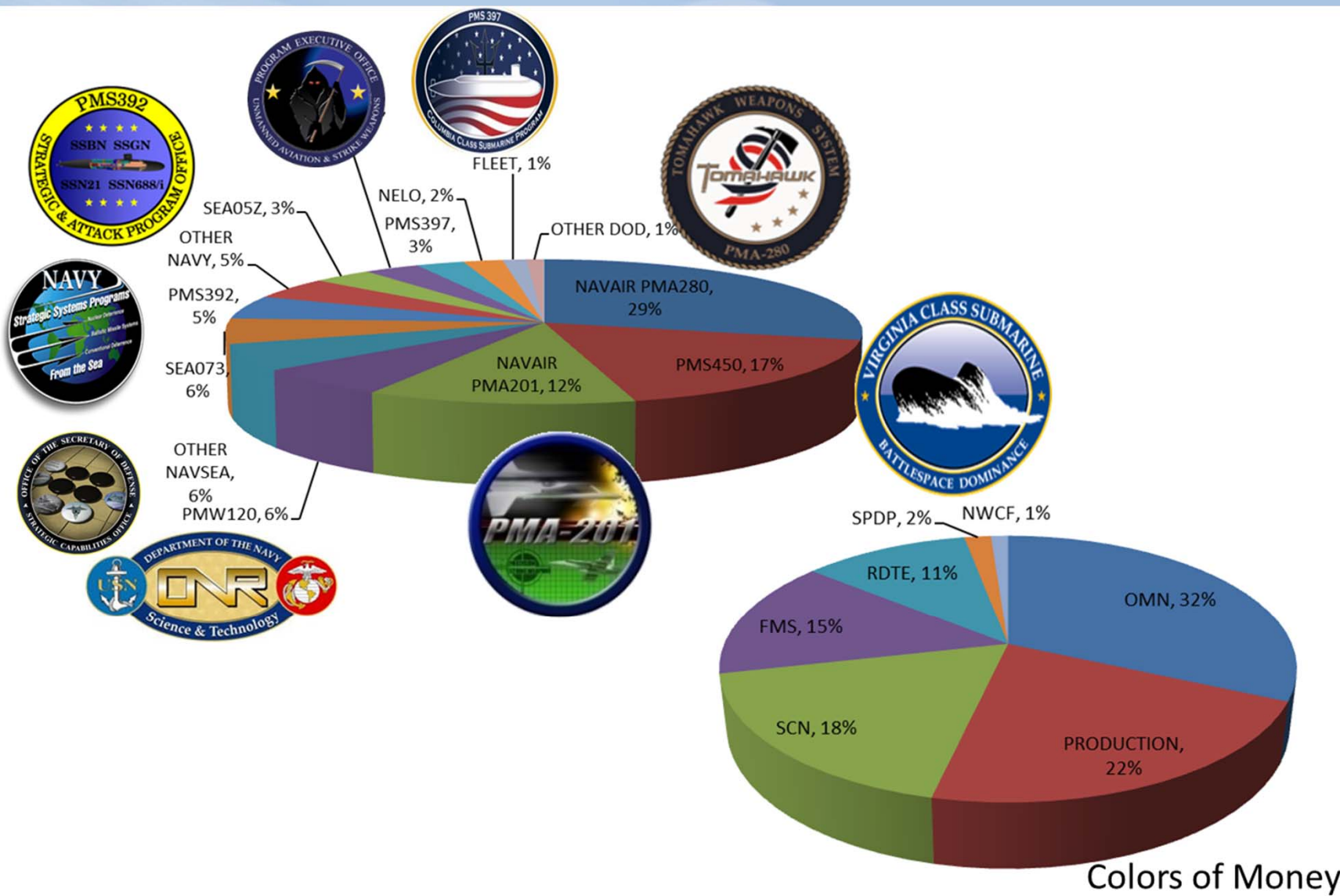
Current End Strength is 254



Education

Degree	Number
PH.D.	5
Masters	62
Bachelors	129
Associates	8

Code 40 FY18 Funding Profile



Colors of Money

What we do...

Warfare Center Technical Capabilities

NP09 – USW Launcher Systems and Payload Integration

- Provides national technical leadership, system engineering, and technical direction oversight of assigned [launcher systems]
- Provides specialized technical expertise and unique national asset laboratory test facilities [...]
- Performs integration assessment of advanced USW payloads and weapons [...]
- Provides full spectrum life cycle engineering support [...]

NP10 – Submarine Tactical Missile Integration

- Provides national technical leadership, system engineering, and technical direction oversight of assigned submarine launched all-up-round tactical missiles [... and associated equipment and sub-systems]
- Performs system engineering, design engineering, software engineering, logistics engineering, and test and evaluation for integration [... tactical missile systems onto submarines]
- Provides full spectrum life cycle engineering support [...]

Ensure Stewardship for Our Technical Capabilities

Code 40's Roles & Responsibilities



In-Service Engineering Agent (ISEA)
Technical Direction Agent (TDA)

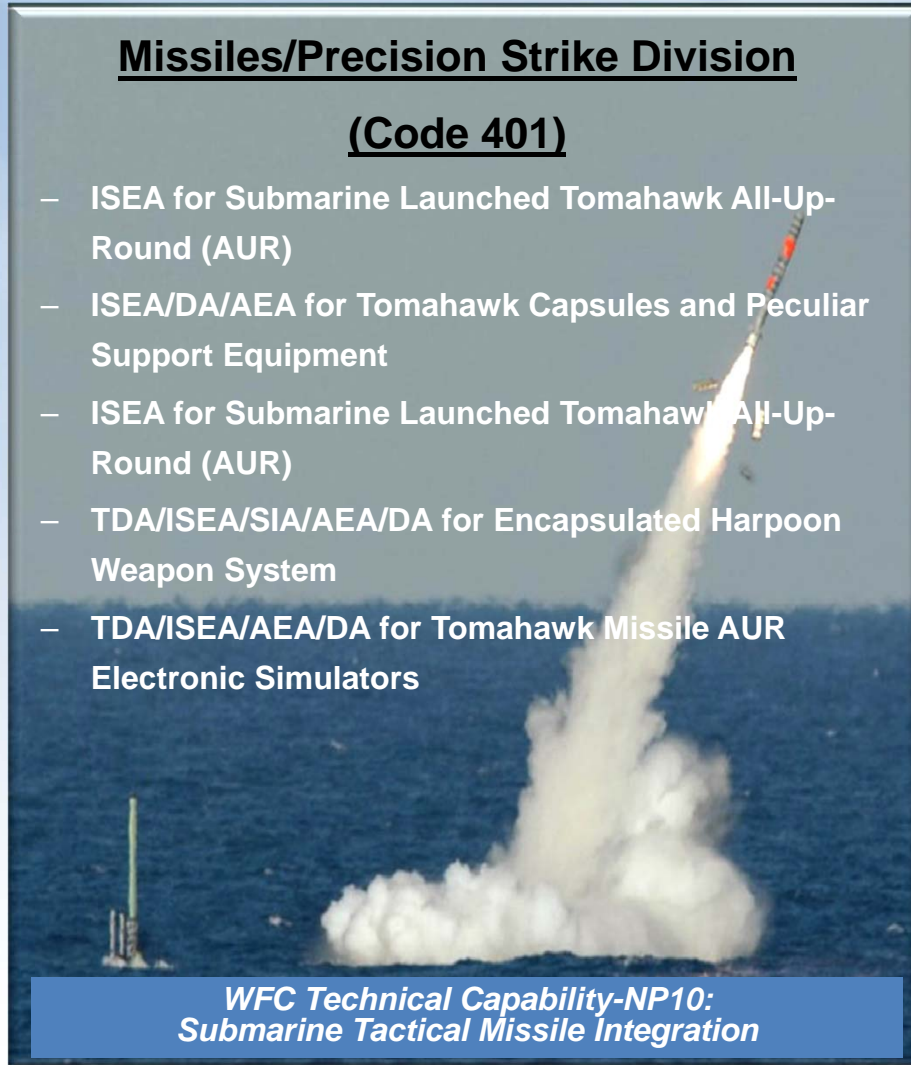
Design Agent (DA)
System Integration Agent (SIA)

Acquisition
Engineering Agent (AEA)

Missiles/Precision Strike Division

(Code 401)

- ISEA for Submarine Launched Tomahawk All-Up-Round (AUR)
- ISEA/DA/AEA for Tomahawk Capsules and Peculiar Support Equipment
- ISEA for Submarine Launched Tomahawk All-Up-Round (AUR)
- TDA/ISEA/SIA/AEA/DA for Encapsulated Harpoon Weapon System
- TDA/ISEA/AEA/DA for Tomahawk Missile AUR Electronic Simulators



*WFC Technical Capability-NP10:
Submarine Tactical Missile Integration*

Launcher Systems & Payload Integration

(Code 402)

- TDA & ISEA for Tactical Weapon Launch & Handling Systems Including:
 - Horizontal Torpedo Tubes
 - Torpedo Tube Control Panels
 - Internal Countermeasure Launcher
 - Vertical Launch System
 - Surface Vessel Torpedo Tubes
 - Trash Disposal Unit
 - VIRGINIA Payload Tube
 - VIRGINIA Payload Module including AEA
- TDA & DA for Payload (non-missile) launch and recovery performance for VPM
- TDA for Submarine Structural Closures & Trunks
- TDA for External Countermeasure Launcher
- TDA, ISEA, SIA & AEA for FMS Submarine Launcher Systems



*WFC Technical Capability-NP09:
USW Launcher Systems and Payload Integration*

The Code 40 Product Line



- **Submarine Launcher Systems**
 - Torpedo Tubes
 - Launchway/Shutter Doors
 - Ejection Systems (Ram Pump, Turbine Pumps)
 - Vertical Launch System (VLS)
 - Weapon Handling / Stowage Systems
 - Control Panels
 - Internal/External Countermeasure Launchers
 - Trash Disposal Unit
 - Torpedo Mounted Dispenser (TMD)
 - VA Payload Tube (VPT), VA Payload Module (VPM)
- **Submarine Launched Tomahawk Missile**
 - All-Up-Round & Capsule
 - Test Missiles (TOTEM) / Support Equipment
 - TOMIS – Tomahawk Management Information System
- **Encapsulated Harpoon Weapon System (FMS)**
 - All-Up-Round & Capsule
 - Test Missiles / Support Equipment
 - Encapsulated Harpoon Command & Launch Subsystem
- **Electronic Missile Simulators – MK 101 and MK 112**
- **Surface Ship Tubes (SVTT MK 32, TWS/CAT)**
- **Hatches, Trunks and Closures**
- **Hydrodynamics, Shock, **Materials, Implosion** and System Safety Analysis**
- **TEMPALT Development**
- **Extra Large Unmanned Undersea Vehicle Payload Carriage Integration and Deployment**
- **Advanced Missile Systems Integration**
- **Composite Canisters**

Our skilled workforce, industry partners and unique facilities keep us relevant!

Transformational Alignment



Identify and Deliver Solutions for the Tactical Submarine Evolution Plan



Naval Undersea Warfare Center Division Newport



Platform & Payload Integration Department: Code 40 Industry Day

New Contract Strategy

23 January 2018

Contract Strategy

Objectives:

- Adapt Code 40 contracts portfolio to align with new Department organization
- Transition from product aligned to function aligned services
- Provide for services in support of our in-service engineering, payload integration and the Tactical Submarine Evolution Plan

Code 40 Existing Contracts

Current Contract Number	Contract Scope	Incumbent
N00178-04-D-4018-N412	FMS Encapsulated Harpoon Engineering and Tech Services	BAE
N00178-04-D-4122-N430	Tomahawk Flight Test Engineering and Tech Services	SEA CORP
N00178-04-D-4018-N413	Launcher Systems Engineering and Tech Services	BAE
N00178-04-D-4083-N460	Missile Systems Integrated Logistics Support Services	MRC
N66604-10-D-034A/C	SUBSAFE Engineering and Tech Services	EB / OII



6 New Contracts Planned

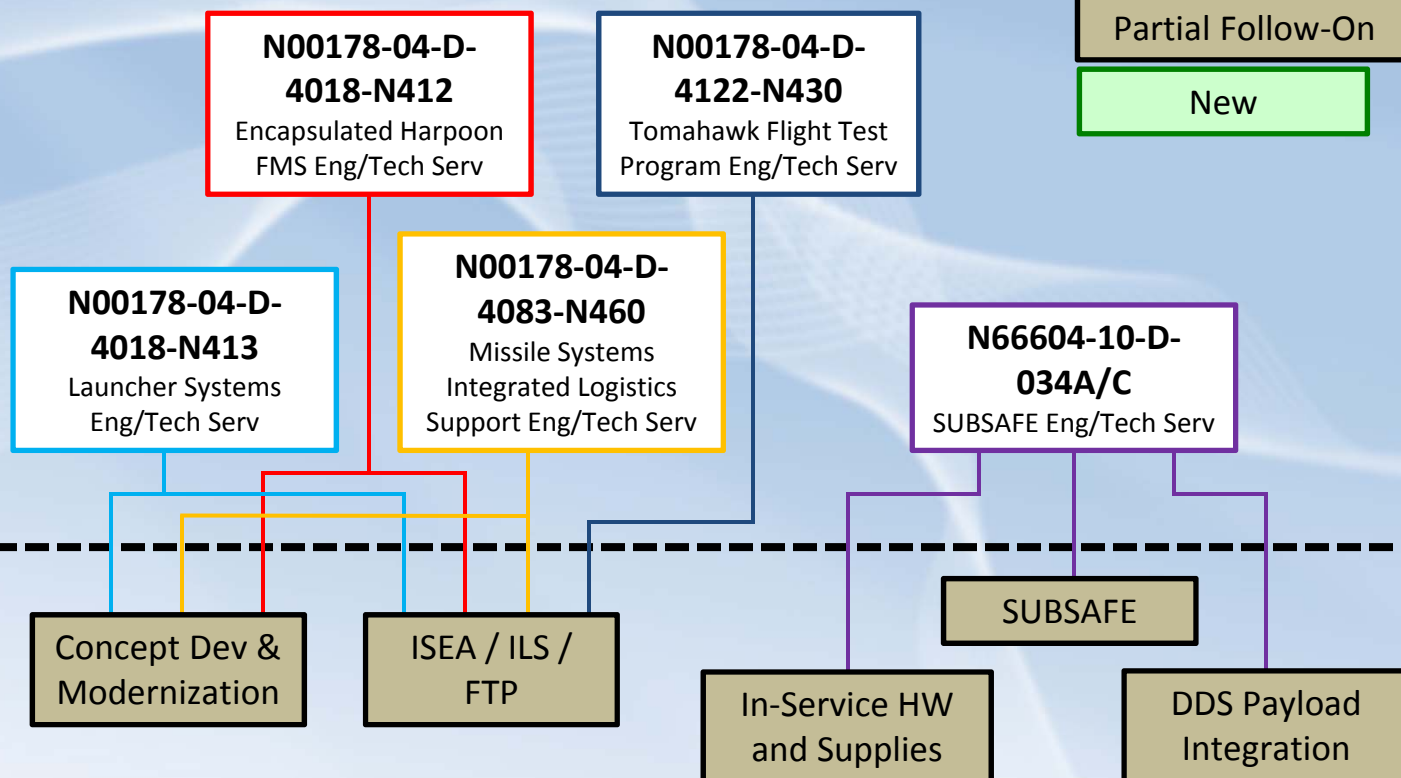
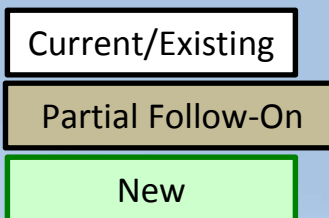
Contract Title	Code 40 Branch Lead	Estimated RFP Release
Concept Development and Modernization	402	FY18Q3
In-Service / Integrated Logistics Support	4014	FY18Q3
SUBSAFE Engineering Services	402	FY18Q2
DDS Payload Integration (DSS-SOC) Engineering Services	4022	FY18Q4
Rapid Prototyping	40T	FY18Q3
In-Service Hardware and Supplies	409	FY19Q1



Current to Future Distribution



Current Code 40 Contracts



Planned Code 40 Contracts that are New Partial Follow-Ons

Planned Code 40 Contracts that are New Contract Efforts



Current to Future Distribution

Concept Dev &
Modernization

Current

Future

SOW Para	Title Sub Tasks
N413	
4.1	Analysis, Development, and Payload Integration Support of Launcher Systems for In-Service Platforms
4.1.1	Problem Reso
4.1.2	Grooming and
4.1.3	Test and Evalu
4.1.4	System Mode
4.1.5	Installation Do
4.1.6	Logistics Docu
4.1.7	Test and Certi
4.1.8	Platform and I
	Analysis Supp
4.2	Analysis, Develop Systems for Futu
4.2.1	Analysis of Su
4.2.2	Specification I
4.2.3	Concept Analy
4.2.4	Performance /
4.2.5	Systems Deve
4.2.6	Systems Engin
4.2.7	Payload Compati
4.2.8	Land Based Te
4.2.9	Platform Test
4.2.10	Special Fixture
4.3	Technical Project
4.3.1	Technical Co
4.3.2	Systems Engin
4.3.3	Documentatio
4.3.4	Logistics Supp
4.3.5	Warehouse M
4.3.6	Hardware Test
4.3.7	Systems Configur
4.3.8	Modernization Kit Support
4.3.9	Test Equipment Install

SOW Para	Title Sub Tasks
N460	
4.1	Task 1 – Logistics Support Plans
4.2	Task 2 - Logistics Management Support Analysis (LMSA) / LM Information Reports (LMIR) /Level of Repair Analysis (LORA)
4.3	Task 3 - Impact on Logistics Management Information
4.4	Task 4 - Impact on Integrated Logistics Support
4.5	Task 5 –Fabrication of Prototypes/Engineering Development Models
4.6	Task 6 – Supply Support
4.7	Task 7- Management Plans and Analyses
4.8	Task 8 - Technical Manual Development and Revision
4.9	Task 9 –Inventory Management
4.10	Task 10 - Training and Training Development
4.11	Task 11 - Field Services

SOW Para	Title Sub Tasks
N412	
4.1	EHWS Systems Analysis and Assessment
4.2	EHWS Systems Engineering and Development
4.3	Software Engineering and Development
4.4	Technical/Program Management Support Services
4.5	EHWS Engineering Management Support Services
4.6	HARPOON Missile Integration
4.7	EHWS Integrated Logistics Support (ILS)

SOW Para	Title Sub Tasks
4.1	Concept Development Services
4.1.1	Analysis of Submarine Operations
4.1.2	Specification Development & Review
4.1.3	Concept Analysis
4.1.4	Performance Analysis
4.1.5	Systems Development
4.1.6	Systems Engineering Analysis
4.1.7	Payload Compatibility Analysis
4.1.8	Land Based Test and Evaluation
4.1.9	Special Fixtures
4.2	Modernization Services
4.2.1	Technical Coordination Support
4.2.2	Systems Engineering Support
4.2.3	Documentation Support
4.2.4	Logistics Support
4.2.5	Warehouse Management / Supply Support
4.2.6	Systems Configuration Review / Ship Checks
4.2.7	Modernization Kit Support
4.2.8	Manufacturing and Assy Studies
4.2.9	Laboratory Equipment Installations
4.3	Test and Evaluation Services
4.3.1	Test and Evaluation Planning
4.3.2	Test Preparation
4.3.3	Test Execution
4.3.4	Post Test Analysis



Current to Future Distribution

ISEA / ILS /
FTP

Current

Future

SOW Para	Title Sub Tasks	SOW Para	Title Sub Tasks
N413		N460	
4.1	Analysis Support	4.1	Task 1 – Logistics Support Plans
4.1.1	Prob	4.2	Task 2 - Logistics Management Support Analysis (LMSA) / LM Information Reports (LMIR) /Level of Repair Analysis (LORA)
4.1.2	Groo	4.3	Task 3 - Impact on Logistics Management Information
4.1.3	Test	4.4	Task 4 - Impact on Integrated Logistics Support
4.1.4	Syste	4.5	Task 5 –Fabrication of Prototypes/Engineering Development Models
4.1.5	Insta	4.6	Task 6 – Supply Support
4.1.6	Logis	4.7	Task 7- Management Plans and Analyses
4.1.7	Test	4.8	Task 8 - Technical LM and Data Collection and Reporting
4.1.8	Platf	4.9	Task 9 - Technical LM and Data Collection and Reporting
	Anal	4.10	Task 10 - Technical LM and Data Collection and Reporting
4.2	Analysis Systems	4.11	Task 11 - Technical LM and Data Collection and Reporting
4.2.1	Anal		
4.2.2	Spec		
4.2.3	Concept Analysis		
4.2.4	Performance Analysis		
4.2.5	Systems Development		
4.2.6	Systems Engineering Analysis		
4.2.7	Payload Compatibility Analysis		
4.2.8	Land Based Test and Evaluation		
4.2.9	Platform Test and Evaluation		
4.2.10	Special Fixtures		
4.3	Technical Project Support		
4.3.1	Technical Coordination Support		
4.3.2	Systems Engineering Support		
4.3.3	Documentation Support		
4.3.4	Logistics Support		
4.3.5	Warehouse Management / Supply Support		
4.3.6	Hardware Test Technical Support		
4.3.7	Systems Configuration Review / Ship Checks		
4.3.8	Modernization Kit Support		
4.3.9	Test Equipment Install		

SOW Para	Title Sub Tasks
N430	
4.1	TOMAHAWK Flight Test Data Collection, Reduction, Analysis and Reporting
	Collect/Process/Analyze/Present TEDES, Everest, EMS, NAV, GPS, Launch TM, TSN data
	Review/propose revisions to procedures for TFT Analysis, TPs, Specs, tactical guidance
4.2	Design, Preparation, Maintenance, Testing and Documentation of Platform Information Technology
	Prepare TEMPALT TDP
	Review/propose revisions to procedures for TFT Analysis, TPs, Specs, tactical guidance

SOW Para	Title Sub Tasks
N412	
4.1	EHWS Systems Analysis and Assessment
4.2	EHWS Systems Engineering and Development
4.3	Software Engineering and Development
4.4	Technical/Program Management Support Services
4.5	EHWS Engineering Management Support Services
4.6	HARPOON Missile Integration
4.7	EHWS Integrated Logistics Support (ILS)

SOW Para	Title Sub Tasks
4.1	INTEGRATED LOGISTICS SUPPORT
4.1.1	ILS MANAGEMENT AND ANALYSIS
4.1.2	MAINTENANCE PLANNING
4.1.3	SUPPLY SUPPORT
4.1.4	PROCUREMENT SUPPORT
4.1.5	SUPPORT EQUIPMENT
4.1.6	TECHNICAL DOCUMENTATION
4.1.7	TRAINING AND TRAINING DEVELOPMENT
4.1.8	FACILITIES PLANNING
4.1.9	PACKAGING, HANDLING, STORAGE, AND TRANSPORTATION
4.1.10	MANPOWER AND PERSONNEL
4.1.11	DESIGN INTERFACE
4.1.12	COMPUTER RESOURCE SERVICES
4.1.13	FIELD SERVICES
4.2	IN-SERVICE ENGINEERING AGENT SUPPORT
4.2.1	SYSTEMS CONFIGURATION REVIEW / SHIPCHECKS
4.2.2	PLATFORM AND PAYLOAD INTEGRATION AND INTERFACE ANALYSIS SUPPORT
4.2.3	PAYLOAD COMPATIBILITY ANALYSIS
4.2.4	MISSILE AND LAUNCHER INTEGRATION
4.2.5	TEST, EVALUATION AND CERTIFICATION METHODS
4.3	ENGINEERING SUPPORT
4.3.1	DESIGN ENGINEERING
4.3.2	SYSTEMS ENGINEERING SUPPORT
4.3.3	SYSTEMS SAFETY ENGINEERING
4.3.4	SOFTWARE ENGINEERING
4.3.5	CONFIGURATION MANAGEMENT SUPPORT
4.4	FLIGHT TEST PROGRAM SUPPORT
4.4.1	Flight Test Planning, Data Collection, Reduction, Analysis and Reporting
4.4.2	Documentation/Maint/Test of Platform IT Equipment
4.5	PROGRAM AND FINANCIAL MANAGEMENT SUPPORT
4.5.1	Program and Financial Management Services
4.5.2	Conference Facility Services



Current to Future Distribution



SUBSAFE

Current

SOW	Title
Para	Sub Tasks
034	
4.1	Engineering Studies Feasibility /Ship Impact Hydrostatic / Ballasting Structural / Acoustic Studies Ship Safety Studies / Closures System Interface Studies Electro / Mechanical Control Weapon to Ship Intergration
4.2	Interface Working Group
4.3	Ship Installation Drawing Development
4.4	Ship Arrangement Design
4.5	Engineering Changes Alterations Drawing / Interfaces Quality Assurance / Control Integrated Logistics Support Products Design Disclosure Documentation MOA's and Work Packages
4.6	Fleet Training and Certification
4.7	Modernization Conferences
4.8	Fabrication Integration and Test
4.9	Installation / Removal / Production / Manufacturing / Assembly /Integration / Test /Modernization Services Alterations and Changes SS/L1 REC packages Field Services Fleet Troubleshooting Mock - Ups Manufacturing Services
4.10	VLS Repair Facility Technical and Engineering Services
4.11	Reporting



Future

SOW	Title
Para	Sub Tasks
4.1	Engineering Studies Feasibility /Ship Impact Hydrostatic / Ballasting Structural / Acoustic Studies Ship Safety Studies / Closures System Interface Studies Electro / Mechanical Control Weapon to Ship Intergration
4.2	Interface Working Group
4.3	Ship Installation Drawing Development
4.4	Ship Arrangement Design
4.5	Engineering Changes Alterations Drawing / Interfaces Quality Assurance / Control Integrated Logistics Support Products Design Disclosure Documentation MOA's and Work Packages
4.6	Fleet Training and Certification
4.7	Modernization Conferences
4.8	Fabrication Integration and Test
4.9	Installation / Removal / Production / Manufacturing / Assembly /Integration / Test /Modernization Services Alterations and Changes SS/L1 REC packages Field Services Fleet Troubleshooting Mock - Ups Manufacturing Services
4.10	VLS Repair Facility Technical and Engineering Services
4.11	Reporting

Current to Future Distribution

DDS Payload
Integration

Current

Future

SOW	Title
Para	Sub Tasks
034	
4.1	Engineering Studies
	Feasibility /Ship Impact
	Hydrostatic / Ballasting
	Structural / Acoustic Studies
	Ship Safety Studies / Closures
	System Interface Studies
	Electro / Mechanical Control
	Weapon to Ship Intergration
4.2	Interface Working Group
4.3	Ship Installation Drawing Development
4.4	Ship Arangement Design
4.5	Engineering Changes
	Alterations
	Drawing / Interfaces
	Quality Assurance / Control
	Integrated Logistics Support Products
	Design Disclosure Documentation
	MOA's and Work Packages
4.6	Fleet Training and Certification
4.7	Modernization Conferences
4.8	Fabrication Integration and Test
4.9	Installation / Removal / Production / Manufacturing / Assembly /Integration / Test /Modernization Services
	Alterations and Changes
	SS/L1 REC packages
	Field Services
	Fleet Troubleshooting
	Mock - Ups
	Manufacturing Services
4.10	VLS Repair Facility Technical and Engineering Services
4.11	Reporting



SOW	Title
Para	Sub Tasks
4.1	Engineering Services
4.1.1	Systems Engineering
4.1.2	Technical Assessments
4.1.3	Design and Development
4.1.4	Manufacture and Production
4.1.4.1	<i>Manufacture and Production (DSS-SOC)</i>
4.1.4.2	<i>Manufacture and Production (DDS Integration Equip)</i>
4.1.5	Technical Data Packages
4.2	Installation, Test and Life Cycle Support
4.2.1	Assembly, Integration and Test
4.2.1.1	<i>Assembly, Integration and Test (DSS-SOC)</i>
4.2.1.2	<i>Assembly, Integration and Test (DDS Integration Equip)</i>
4.2.2	Ship Checks, Installation and Removal
4.2.2.1	<i>Ship Checks, Install and Rem (DSS-SOC)</i>
4.2.2.2	<i>Ship Checks, Install and Rem (DDS Integration Equip)</i>
4.2.3	Life Cycle Support
4.2.3.1	<i>Life Cycle Support (DSS-SOC)</i>
4.2.3.2	<i>Life Cycle Support (DDS Integration Equip)</i>
4.3	Program Management
4.3.1	Program Activity and Status Tracking and Reporting

Current to Future Distribution

In-Service HW
and Supplies

Current

Current Mapping (Notional)



SOW Para	Title Sub Tasks
034	
4.1	Engineering Studies
	Feasibility /Ship Impact
	Hydrostatic / Ballasting
	Structural / Acoustic Studies
	Ship Safety Studies / Closures
	System Interface Studies
	Electro / Mechanical Control
	Weapon to Ship Intergration
4.2	Interface Working Group
4.3	Ship Installation Drawing Development
4.4	Ship Arrangement Design
4.5	Engineering Changes
	Alterations
	Drawing / Interfaces
	Quality Assurance / Control
	Integrated Logistics Support Products
	Design Disclosure Documentation
	MOA's and Work Packages
4.6	Fleet Training and Certification
4.7	Modernization Conferences
4.8	Fabrication Integration and Test
4.9	Installation / Removal / Production / Manufacturing / Assembly /Integration / Test /Modernization Services
	Alterations and Changes
	SS/L1 REC packages
	Field Services
	Fleet Troubleshooting
	Mock - Ups
	Manufacturing Services
4.10	VLS Repair Facility Technical and Engineering Services
4.11	Reporting

SOW Para	Title Sub Tasks
4.1	Engineering Changes
	Drawing / Interfaces
	Quality Assurance / Control
	Design Disclosure Documentation
4.2	Fabrication Integration and Test
4.3	Installation / Removal / Production / Manufacturing / Assembly /Integration / Test /Modernization Services
	Mock - Ups
	Manufacturing Services
4.4	Reporting



Platform & Payload Integration Department: Code 40 Industry Day

Concept Development, Modernization and T&E Engineering & Technical Services

**NUWC Division Newport
23 Jan 2018**



New Concept Dev, Modernization and T&E Eng Services Contract



- **Summary of Contract Scope:**
 - **5 Year Seaport-e task order for engineering and technical services required for the development and analysis of advanced concepts; development and analysis of new systems; engineering and design investigations of problems encountered with existing systems; system safety assessments; preliminary engineering change proposal development; fabrication, assembly, installation and testing of engineering development hardware in land-based test facilities and onboard ships; technical program management support; systems engineering; new and existing payload integration on new and existing submarines and surface ships; and test and evaluation of systems.**



New Concept Dev, Modernization and T&E Eng Services Contract (cont'd)



- **Contract Details:**
 - **SeaPort-e Task Order, Zone 1, Northeast**
 - **Five (5) year Period of Performance**
 - **Acquisition Strategy: Unrestricted. Draft SOW to be released.**
 - **Level of Effort: ~250,000 hrs; CPFF and FFP**
 - **Unique Personnel: A group of key personnel may be requested covering designated areas of expertise; if requested, a resume will be necessary for each key person**
 - **Unique Certifications: None**
 - **Other Direct Costs (ODC's) will be in the neighborhood of ~33% of total cost**
 - **Partial follow-on to: N00178-04-D-4018-N412, N00178-04-D-4018-N413, and N00178-04-D-4083-N460**
 - **RFP Release: FY18Q3**



New Concept Dev, Modernization and T&E Eng Services Contract (cont'd)



- **Contract Details (cont'd):**
 - **Clearance Level: Secret**
 - **Work Locations: ~20% Government-site, ~80% Contractor Site**
 - **Facilities: Government will provide facilities for on-site personnel**
 - **Facility Security Clearance Required: Secret**
 - **Government Furnished Assets / Materials / Equipment / Information (GFA/M/E/I): Provided in Solicitation and upon award of contract**
 - **Organizational Conflict of Interest (OCOI) Clause Applies**



New Concept Dev, Modernization and T&E Eng Services Requirements



- **Primary Tasks**
 - **Task 4.1: Concept Development Services (~35%)**
 - **Task 4.2: Modernization Services (~25%)**
 - **Task 4.3: Test and Evaluation Services (~40%)**
- ❖ ***A list of Government Specifications and Standards as well as Government Furnished Information (GFI) is provided in the SOW.***



New Concept Dev, Modernization and T&E Eng Services Requirements (cont'd)



- **Task 4.1: Concept Development Services**
 - **Submarine Operations/Functional Analysis**
 - **Specification Development & Review**
 - **Concept Development and Analysis**
 - **Performance Analysis**
 - **Systems Development**
 - **Develop conceptual designs**
 - **Develop system layout, detail, and assembly drawings**
 - **Develop printed circuit board layout drawings**
 - **Prepare artwork, schematics, block and wiring diagram drawings**
 - **Prepare product baseline (PBL) drawing and component lists**
 - **Systems Safety Engineering Analysis**
 - **Payload Compatibility Analysis**
 - **Development of Land-Based Test and Evaluation Facilities**
 - **Development of Special Fixtures**



New Concept Dev, Modernization and T&E Eng Services Requirements (cont'd)



- **Task 4.2: Modernization Services**
 - **Technical Coordination**
 - **Systems Engineering**
 - **Systems Documentation Tasking**
 - **Logistics Tasking**
 - **Supply Tasking**
 - **Systems Configuration Review / Ship Checks**
 - **Modernization Kit Tasking**
 - **Manufacturing and Assembly Studies**
 - **Laboratory Equipment Installations**



New Concept Dev, Modernization and T&E Eng Services Requirements (cont'd)



- **Task 4.3: Test and Evaluation**
 - Test and Evaluation Planning
 - Test Preparation
 - Test Execution
 - Post-Test Analysis

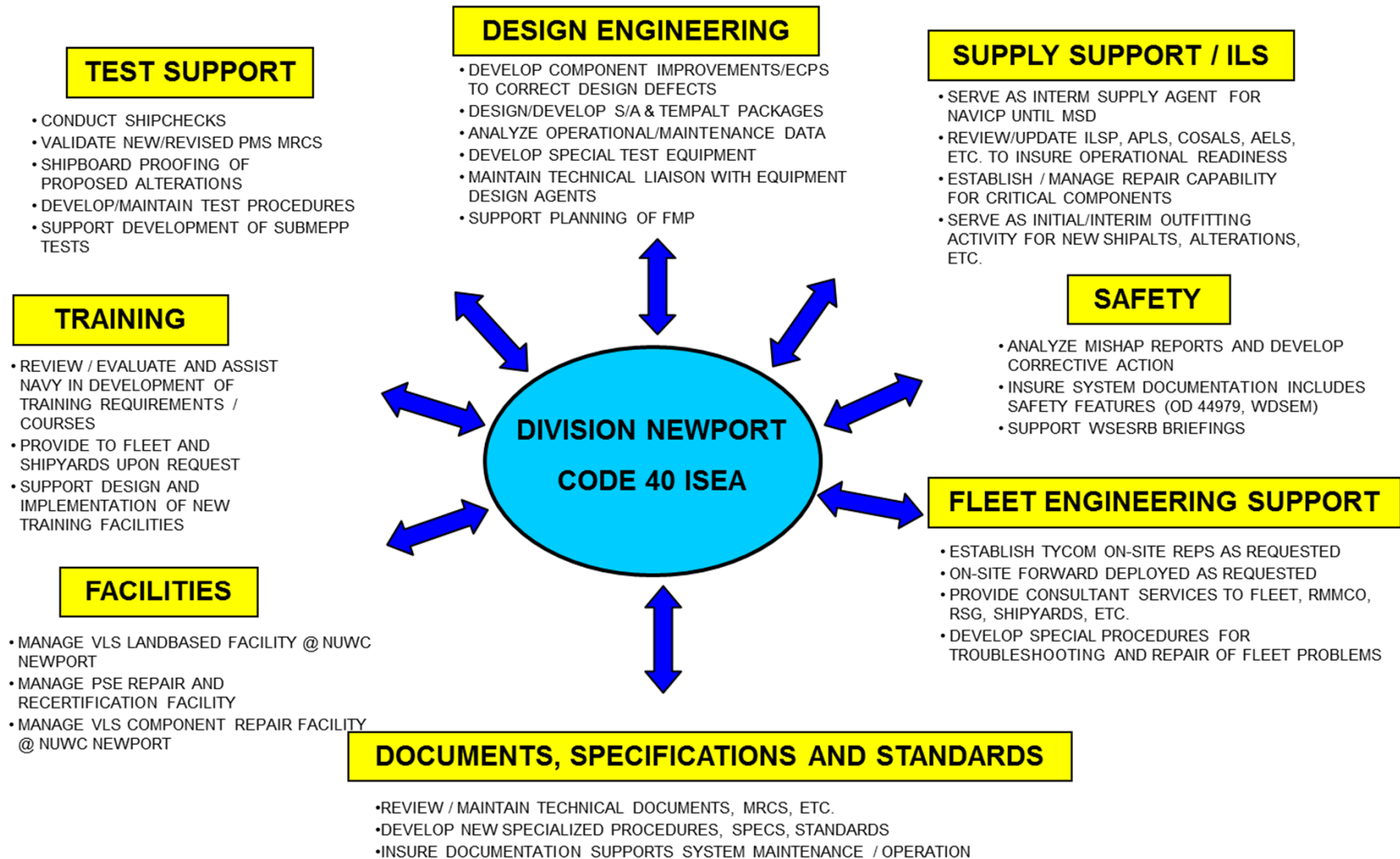


Platform & Payload Integration Department: Code 40 Industry Day

Integrated Logistics Support (ILS)/In-Service Engineering Agent (ISEA)/Flight Test Program (FTP) Support Services

**NUWC Division Newport
23 Jan 2018**

In-Service Functions and Task Areas





New ILS, ISEA and FTP Support Services Contract



- **Summary of Contract Scope:**
 - **5 Year Seaport-e task order for in-service Integrated Logistics Support (ILS); engineering (systems, software, safety and design); configuration management; Tomahawk Flight Test Program (FTP) technical services; and Program & Financial Management Support.**



New ILS, ISEA and FTP Support Services Contract (cont'd)



- **Contract Details:**
 - **SeaPort-e Task Order, Zone 1, Northeast**
 - **Five (5) year Period of Performance**
 - **Acquisition Strategy: TBD – Sources Sought.**
 - **Level of Effort: ~550,800 hrs; CPFF and FFP**
 - **Unique Personnel: A group of key personnel may be requested covering designated areas of expertise; if requested, a resume will be necessary for each key person**
 - **Unique Certifications:**
 - **Conventional Ordnance Certification per OPNAVINST 8023.24C & OPNAVINST 5530.13C**
 - **Category II and III Crane Operator certification required**
 - **OSHA/HAZMAT certification required**
 - **CMMI Level 3 or equivalent**
 - **SDP may be required**
 - **Other Direct Costs (ODC's) will be in the neighborhood of ~20% of total cost**



New ILS, ISEA and FTP Support Services Contract (cont'd)



- **Contract Details (cont'd):**
 - **Partial follow-on to: N00178-04-D-4018-N413, N00178-04-D-4083-N460, N00178-04-D-4018-N412 and N00178-04-D-4122-N430**
 - **RFP Release: FY18Q3**
 - **Clearance Level: Secret**
 - **Work Locations: ~80% Government-site, ~20% Contractor Site**
 - **Facilities: Government will provide facilities for on-site personnel**
 - **Facility Security Clearance Required: Secret**
 - **Government Furnished Assets / Materials / Equipment / Information (GFA/M/E/I): Provided in Solicitation and upon award of contract**
 - **Organizational Conflict of Interest (OCOI) Clause Applies**



New ILS, ISEA and FTP Support Services Requirements



- **Primary Tasks**

- **Task 4.1: Integrated Logistics Support (~35%)**
- **Task 4.2: In-Service Engineering (~25%)**
- **Task 4.3: Engineering & Configuration Management (~20%)**
- **Task 4.4: Flight Test Program Eng'rg & Analysis (~10%)**
- **Task 4.5: Programmatic & Financial Management (~10%)**

❖ ***A list of Government Specifications and Standards as well as Government Furnished Information (GFI) is provided in the SOW***



New ILS, ISEA and FTP Support Services Requirements (cont'd)



- **Task 4.1: Integrated Logistics Support**
 - **ILS Management & Analysis**
 - Study ILS planning requirements and verify that system performance and life-cycle requirements have been addressed.
 - **Maintenance Planning**
 - Conduct Level of Repair Analyses (LORA) of system hardware to verify consistency or evaluate current feasibility with its existing maintenance philosophy
 - **Supply Support**
 - Identify spare and repair parts needed to support operational readiness objectives of missile and launcher system programs; provide recommended updates to Provisioning Technical Documentation, as required



New ILS, ISEA and FTP Support Services Requirements (cont'd)



- **Task 4.1: Integrated Logistics Support (cont'd)**
 - **Procurement Support**
 - Provide procurement support and market research to obtain material acquisition data in response to US Navy Submarine Fleet and FMS customer supportability requirements. Identify potential programmatic impacts (e.g., obsolescence, cost, delivery schedule)
 - **Support Equipment**
 - Provide recommendations for the development of new or modernization of existing support equipment for use in the operation, loading, handling, stowage and maintenance of missile and launcher systems at all levels of maintenance
 - **Technical Documentation**
 - Prepare or update technical documentation for the loading & handling, operation and maintenance of missile or launcher system hardware, including web-based training



New ILS, ISEA and FTP Support Services Requirements (cont'd)



- **Task 4.1: Integrated Logistics Support (cont'd)**
 - **Training and Training Development**
 - **Utilize GFI, as well as logistics and supportability analysis data, to develop new or evaluate existing to Fleet training programs and supporting documentation.**
 - **Facilities Planning**
 - **Utilize GFI to identify evaluate projected facility requirements, perform logistics evaluations of existing facilities, as well as identify new facility requirements and and perform site surveys of potential maintenance activities**



New ILS, ISEA and FTP Support Services Requirements (cont'd)



- **Task 4.1: Integrated Logistics Support (cont'd)**
 - **Packaging, Handling Storage & Transportation**
 - Utilize GFI to review and provide recommended updates to Packaging, Handling, Storage, and Transportation (PHS&T) requirements
 - **Manpower & Personnel**
 - Utilize GFI, as well as logistics and supportability analysis data, to evaluate personnel skill levels and technical capability required for operation and maintenance USW system hardware
 - **Design Interface**
 - Utilize GFI to analyze any logistics-related design parameters of new or modified systems or equipment, against system/equipment operational readiness requirements



New ILS, ISEA and FTP Support Services Requirements (cont'd)



- **Task 4.1: Integrated Logistics Support (cont'd)**
 - **Field Services**
 - Provide on-site and at-sea technical services in support of missile and launcher system requirements; conduct functional tests and inspections to troubleshoot failures; and identify any deficiencies, non-compliance with system requirements, and potential degradation of item readiness.
- **Task 4.2: In-Service Engineering Support**
 - **Systems Configuration Review/Shipchecks**
 - Conduct ship checks to document the as-built configuration of weapon/launcher systems within individual ships and compare the results to design drawings



New ILS, ISEA and FTP Support Services Requirements (cont'd)



- **Task 4.2: In-Service Engineering Support (cont'd)**
 - **Platform/Payload Integration and Interface Analysis**
 - Utilize GFI to research, identify, analyze and document the interfaces of payloads, along with the launch, stowage, and handling configurations of specific launch platforms
 - **Payload Compatibility Analysis**
 - Utilize GFI to assess the performance of modifications to existing ship or weapon systems.
 - Prepare compatibility studies and prepare drawings of proposed payloads to demonstrate compatibility with applicable launch system and platform;
 - Identify and evaluate potential problems, as well as provide recommended solutions to incompatibilities.



New ILS, ISEA and FTP Support Services Requirements (cont'd)



- **Task 4.2: In-Service Engineering Support (cont'd)**
 - **Missile & Launcher Integration**
 - Utilize GFI to evaluate operational submarine cruise missile, launcher and shipboard integration, including verification of missile to-external interfaces; assessment of system specification change requests; and identification of independent technical and schedule risks
 - **Test, Evaluation & Certification Methods**
 - Utilize GFI to evaluate and recommend changes to applicable test loads/methods documents (TLMDs), or develop new TLMDs resulting from the introduction of new fixtures, devices, missions and design changes.



New ILS, ISEA and FTP Support Services Requirements (cont'd)



- **Task 4.3: Engineering & Technical Support**
 - **Design Engineering Support**
 - **Provide engineering solutions resulting in updates to existing in-service missile and launcher systems and components, including CAD designs, engineering drawings and Engineering Development Models.**
 - **Review, analyze, and evaluate Government –furnished Engineering Change Documentation (ECD) to assess potential ILS impact**
 - **Utilize GFI to perform and document failure analyses as part of the the Fleet Trouble Review Board (FTRB) Integrated Product Team.**



New ILS, ISEA and FTP Support Services Requirements (cont'd)



- **Task 4.3: Engineering & Technical Support (cont'd)**
 - **Systems Engineering Support**
 - Utilize GFI to conduct systems analysis and evaluate the potential performance and cost benefits of applying evolving technologies to improve missile and launcher system requirements.
 - Utilize GFI to review and assess system-level requirements documents and specifications associated with the introduction of, enhancements to or new capabilities for existing systems (or related subsystems).
 - **Systems Safety Engineering Support**
 - Utilize GFI to perform weapons system safety (WSS) tasking in order to evaluate systems across multiple disciplines, (e.g., hardware, software, personnel, mechanical, hydraulic, electrical, environmental and explosive safety)



New ILS, ISEA and FTP Support Services Requirements (cont'd)



- **Task 4.3: Engineering & Technical Support (cont'd)**
 - **Systems Safety Engineering Support (cont'd)**
 - **Analyze system safety requirements for new and existing weapon systems development and integration; identify safety concerns and provide recommended improvements**
 - **Provide recommended updates to safety documentation, including hazard action reports (HARs); system requirements/criteria analyses; subsystem and system hazard analyses; inadvertent launch analyses (ILAs); health hazard assessments (HHAs); operating and support hazard analyses (O&SHAs); and safety assessment reports (SARs).**



New ILS, ISEA and FTP Support Services Requirements (cont'd)



- **Task 4.3: Engineering & Technical Support (cont'd)**
 - **Software Engineering Support**
 - Utilize GFI to provide software engineering and technical services to assess the efficiency of the existing software.
 - Utilize GFI to modify, review, maintain, produce and distribute test plans and procedures for all system software applications.
 - Provide quality assurance testing for new software or upgrades to existing software that affect the global functionality of their respective applications, along with full regression testing for each.
 - **Configuration Management Services**
 - Utilize GFI and GFA to manage and monitor system change control processes
 - Conduct audits to verify the accuracy of a configuration item and its corresponding identification data



New ILS, ISEA and FTP Support Services Requirements (cont'd)



- **Task 4.4: Flight Test Program Support**
 - **Flight Test Planning, Data Collection & Analysis**
 - **Perform launch platform/missile test planning, data collection, reduction and analysis for assigned flight tests and other missile/simulator tests in support of submarine and surface-launched missile weapon system demonstrations**
 - **Design, prepare, maintain, test and document Platform IT components/systems that collect and process data pertaining to demonstration of Tomahawk missiles or other submarine-launched weapon systems**



New ILS, ISEA and FTP Support Services Requirements (cont'd)



- **Task 4.5: Program & Financial Management Support**
 - **Program & Financial Management Services**
 - **Prepare agendas and attend both technical and program review meetings, provide presentation material, as well as capture and transcribe meeting minutes**
 - **Develop project plans that provide background, applicable references, life cycle support, technical approach, labor projections, risk assessment and estimated costs**
 - **Develop, implement and employ processes and systems for tracking and analyzing projects, organizational resources and budget requirements**
 - **Develop viewgraphs, illustrations and charts suitable for technical and management briefings and presentation**



Platform & Payload Integration Department: Code 40 Industry Day

Submarine Safety (SUBSAFE) Engineering and Technical Services

**NUWC Division Newport
23 Jan 2018**



New SUBSAFE Eng and Tech Services Contract



- **Summary of Contract Scope:**
 - **5 year IDIQ MAC to support high criticality submarine safety (SUBSAFE) / LEVEL 1 (L1) engineering and technical services for systems engineering, technical analyses, mechanical and electrical design, manufacturing, installation, test and evaluation, and repair services of tasks which may include SUBSAFE/L1 components or assemblies.**



New SUBSAFE Eng and Tech Services Contract (cont'd)



- **Contract Details:**
 - **IDIQ MAC**
 - **Five (5) year Period of Performance**
 - **Acquisition Strategy: Unrestricted. Draft SOW to be released.**
 - **Level of Effort: ~250,000 hrs; CPFF and FFP**
 - **Unique Personnel: A group of key personnel may be requested covering designated areas of expertise; if requested, a resume will be necessary for each key person**
 - **Unique Certifications:**
 - **NAVSEA Note 5000**
 - **Other Direct Costs (ODC's) will be in the neighborhood of ~60% of total cost**



New SUBSAFE Eng and Tech Services Contract (cont'd)



- **Contract Details (cont'd):**
 - **Partial follow-on to: N66604-10-D-034**
 - **RFP Release: FY18Q2**
 - **Clearance Level: Secret**
 - **Work Locations: ~40% Government-site, ~60% Contractor Site**
 - **Facilities: Government will provide facilities for on-site personnel**
 - **Facility Security Clearance Required: Secret**
 - **Government Furnished Assets / Materials / Equipment / Information (GFA/M/E/I): Provided in Solicitation and upon award of contract**
 - **Organizational Conflict of Interest (OCOI) Clause Applies**



New SUBSAFE Eng and Tech Services Requirements



- **Primary Tasks**

- Task 4.1: Engineering Analysis, Design and Design Review (~35%)
- Task 4.2: Conduct Interface Working Group Meetings (~5%)
- Task 4.3: Piping Layouts and Ship Installation Drawings (~10%)
- Task 4.4: Ship Arrangement Layouts and Detail Design for Weapon Stowage and Launcher systems (~15%)
- Task 4.5: Configuration Management (~5%)
- Task 4.6: Fleet Training and Certification Programs (~5%)
- Task 4.7: Hardware Fabrication to Support Development and Testing (~10%)
- Task 4.8: System Installation, Removal, Test and Evaluation (~5%)
- Task 4.9: Technical and Engineering Services for VLS Repair Facility (~5%)
- Task 4.10: Engineering/Technical Documentation (~5%)

❖ ***A list of Government Specifications and Standards as well as Government Furnished Information (GFI) is provided in the SOW***



New SUBSAFE Eng and Tech Services Requirements (cont'd)



- **Task 4.1: Engineering Studies**
 - **Feasibility /Ship Impact**
 - **Hydrostatic / Ballasting**
 - **Structural / Acoustic Studies**
 - **Ship Safety Studies / Closures**
 - **System Interface Studies**
 - **Electro / Mechanical Control**
 - **Weapon to Ship Integration**
- **Task 4.2: Interface Working Group**
- **Task 4.3: Ship Installation Drawing Development**
- **Task 4.4: Ship Arrangement Design**



New SUBSAFE Eng and Tech Services Requirements (cont'd)



- **Task 4.5: Engineering Changes**
 - Alterations
 - Drawing / Interfaces
 - Quality Assurance / Control
 - Integrated Logistics Support Products
 - Design Disclosure Documentation
 - MOA's and Work Packages
- **Task 4.6: Fleet Training and Certification**
- **Task 4.7: Modernization Conferences**
- **Task 4.8: Fabrication Integration and Test**



New SUBSAFE Eng and Tech Services Requirements (cont'd)



- **Task 4.9: Installation / Removal / Production / Manufacturing / Assembly /Integration / Test / Modernization Services**
 - Alterations and Changes
 - SS/L1 REC packages
 - Field Services
 - Fleet Troubleshooting
 - Mock - Ups
 - Manufacturing Services
- **Task 4.10: VLS Repair Facility Technical and Engineering Services**
- **Task 4.11: Reporting**



Platform & Payload Integration Department: Code 40 Industry Day

Dry Deck Shelter Payload Integration Engineering Services Support

**NUWC Division Newport
23 Jan 2018**



DSS-SOC Task Areas



Provide engineering and technical support to accommodate Payloads in Dry Deck Shelters, including all of the supporting systems internal to the submarine required to support a Payload.

- Engineering Services:
 - System Engineering
 - Concept Development
 - Design
 - Technical Data Package Development
 - Life Cycle Support Planning
- Hardware and Software
 - Manufacture, Produce or Procure
 - Assemble, Integrate and Test
 - Install and Remove
- Laboratory Support
 - Controlled Material Handling
 - Material Receipt Inspection
 - Controlled Material Storage
- Deep Submergence System – Scope of Certification (DSS-SOC) certification is required to perform some of the tasks, but not all.
- Offerors may propose to perform any or all of the tasks.



New DDS Payload Integration Eng Services Support Contract



- **Summary of Contract Scope:**
 - **5 year IDIQ MAC contract to support Deep Submergence Systems Scope of Certification (DSS-SOC) engineering and technical services for the performance of ship checks, concept/design development, TEMPMOD / FC / COH / TEMPALT / SHIPALT development, procurement / fabrication, receipt inspection, controlled material handling, installation/removal activities, DSS-SOC storage, and development of life cycle support plans.**



New DDS Payload Integration Eng Services Support Contract (cont'd)



- **Contract Details:**
 - **IDIQ MAC**
 - **Five (5) year Period of Performance**
 - **Acquisition Strategy: Unrestricted. Draft SOW to be released.**
 - **Level of Effort: ~93,000 hrs; CPFF and FFP**
 - **Unique Personnel: A group of key personnel may be requested covering designated areas of expertise; if requested, a resume will be necessary for each key person**
 - **Unique Certifications:**
 - **NAVSEA Note 5000 (DSS-SOC Only)**
 - **CMMI Level 3 or equivalent**
 - **SDP may be required**
 - **Other Direct Costs (ODC's) will be in the neighborhood of ~75% of total cost**



New DDS Payload Integration Eng Services Support Contract (cont'd)



- **Contract Details (cont'd):**
 - **Partial follow-on to: N66604-10-D-034**
 - **RFP Release: FY18Q4**
 - **Clearance Level: Secret**
 - **Work Locations: ~20% Government-site, ~80% Contractor Site**
 - **Facilities: Government will provide facilities for on-site personnel**
 - **Facility Security Clearance Required: Secret**
 - **Government Furnished Assets / Materials / Equipment / Information (GFA/M/E/I): Provided in Solicitation and upon award of contract**
 - **Organizational Conflict of Interest (OCOI) Clause Applies**



New DDS Payload Integration Eng Services Support Requirements



- **Primary Tasks**
 - **Task 4.1: Engineering Services (~60%)**
 - **Task 4.2: Installation, Test, and Life Cycle Support (~35%)**
 - **Task 4.3: Program Management (~5%)**

- ❖ **A list of Applicable Documents as well as Government
Furnished Information (GFI) is provided in the SOW**



New DDS Payload Integration Eng Services Support Requirements (cont'd)



- **Task 4.1: Engineering Services**
 - **Task 4.1.1: Systems Engineering**
 - **Perform Requirements Analysis**
 - Includes evaluation of the functional allocation of requirements to individual hardware and software configuration items
 - **Analyze System Architecture**
 - **Conduct Interface Development**
 - Includes interfaces with DSS-SOC boundary infrastructure services (space, power, cooling, cable plant and other interfaces or services)
 - **Perform Risk Management**
 - Includes identification of risks and proposal of risk mitigation strategies
 - **Support System Safety Program**
 - **Support Technical Design and Milestone Reviews**



New DDS Payload Integration Eng Services Support Requirements (cont'd)



- **Task 4.1.2: Technical Assessments**
 - **Assess Existing Hardware and Software**
 - **Assess Documentation**
 - **Assess Interfacing Systems**
 - **Generate Technical Reports**
 - **Technical Deficiencies**
 - **Issues**
 - **Recommend Technical Solutions**



New DDS Payload Integration Eng Services Support Requirements (cont'd)



- **Task 4.1.3: Design and Development**
 - **Modify Existing or Develop New Hardware or Software**
 - **Support Integration of Systems That Interface With or Fall Within DSS-SOC Boundaries for Dry Deck Shelters**
 - **Perform Conceptual Design, Preliminary Design, Design Evaluation, Analysis of Alternatives; Conduct Performance Analysis, Design Analysis, Performance Simulations, and Detailed Design**
 - **Support of design reviews**
 - **Develop of Drawings and Models for hardware**
 - **Develop Computer Software Configuration Items**



New DDS Payload Integration Eng Services Support Requirements (cont'd)



- Task 4.1.4: Manufacture and Production
 - Task 4.1.4.1: Manufacture and Production **(DSS-SOC)**
 - Manufacture, Produce, or Procure and Deliver DSS-SOC Certified Prototype or Production Hardware
 - Verify Form, Fit and Function (to include fit checks)
 - Test Deliverable Items to Ensure Meet All Requirements
 - Contractor Provides Facilities, Tooling and Personnel
 - Deliver Associated Documentation



New DDS Payload Integration Eng Services Support Requirements (cont'd)



- **Task 4.1.4.2: Manufacture and Production (Dry Deck Shelter Integration Equipment)**
 - **Manufacture, Produce, or Procure and Deliver Prototype or Production Hardware**
 - **Verify Form, Fit and Function (to Include Fit Checks)**
 - **Test Deliverable Items to Ensure Meet All Requirements**
 - **Contractor Provides Facilities, Tooling and Personnel**
 - **Deliver Associated Documentation**



New DDS Payload Integration Eng Services Support Requirements (cont'd)



- **Task 4.1.5: Technical Data Packages**
 - **Develop Technical Data Packages (TDP) for:**
 - **Temporary Alterations (TEMPALTs)**
 - **Ship Alterations (SHIPALTs)**
 - **Temporary Modifications (TEMPMODs)**
 - **Field Changes (FCs)**
 - **Carry-On Hardware (COH)**
 - **Review, Comment On, Make Recommendations on GFI TDPs**
 - **Incorporate Comments and Update TDPs to Obtain Approvals**



New DDS Payload Integration Eng Services Support Requirements (cont'd)



- **Task 4.2: Installation, Test and Life Cycle Support**
 - **Task 4.2.1: Assembly, Integration and Test**
 - **Task 4.2.1.1: Assembly, Integration and Test (DSS-SOC)**
 - Assemble Components, Integrate Assemblies, Subsystems and Systems to Create DSS-SOC Equipment
 - Develop Test Plans and Procedures
 - Furnish Test Equipment and Fixtures
 - Execute Testing
 - Component Level
 - System Level
 - Land-Based Testing
 - Shipboard Testing
 - Evaluate Test Results and Provide Technical Analysis
 - Prepare and Deliver Test Reports



New DDS Payload Integration Eng Services Support Requirements (cont'd)



- **Task 4.2.1.2 Assembly, Integration and Test (Dry Deck Shelter Integration Equipment)**
 - **Assemble Components, Integrate Assemblies, Subsystems and Systems**
 - **Develop Test Plans and Procedures**
 - **Furnish Test Equipment and Fixtures**
 - **Execute Testing**
 - **Component Level**
 - **System Level**
 - **Land-Based Testing**
 - **Shipboard Testing**
 - **Evaluate Test Results and Provide Technical Analysis**
 - **Prepare and Deliver Test Reports**



New DDS Payload Integration Eng Services Support Requirements (cont'd)



- Task 4.2.2: Ship Checks, Installation and Removal
 - Task 4.2.2.1: Ship Checks, Installation and Removal (**DSS-SOC**)
 - For TEMPMODs, Field Changes, and Engineering Changes
 - Perform Ship Checks
 - Install or Remove Hardware and Software
 - In Laboratories
 - Shore Sites
 - Dry Deck Shelters
 - Aboard Submarines
 - Draft MOUs and MOAs to Support
 - Develop and Maintain Departures from Specification Documentation
 - Provide On-Site Support for Emergent Issues and Recommend Solutions



New DDS Payload Integration Eng Services Support Requirements (cont'd)



- **Task 4.2.2.2: Ship Checks, Installation, and Removal (Dry Deck Shelter Integration Equipment)**
 - **For Carry-On Hardware, TEMPALTs and SHIPALTs, or Engineering Changes**
 - **Perform Ship Checks**
 - **Install or Remove Hardware and Software**
 - **In Laboratories**
 - **Shore Sites**
 - **Aboard Submarines**
 - **Draft MOUs and MOAs to Support**
 - **Develop and Maintain Departures from Specification Documentation**
 - **Provide On-Site Support for Emergent Issues and Recommend Solutions**



New DDS Payload Integration Eng Services Support Requirements (cont'd)



- Task 4.2.3: Life Cycle Support
 - Task 4.2.3.1: Life Cycle Support **(DSS-SOC)**
 - Perform Controlled Material Handling
 - Perform Receipt Inspection of Hardware
 - Perform Maintenance
 - Maintain DSS-SOC Certification of Personnel
 - Provide Logistics Products
 - Sparing Recommendations
 - Maintenance Instructions and Procedures
 - Reliability Centered Maintenance Analysis
 - Training Curriculum and Materials
 - Technical Manuals
 - Operating Procedures



New DDS Payload Integration Eng Services Support Requirements (cont'd)



- **Task 4.2.3.2 Life Cycle Support (Dry Deck Shelter Integration Equipment)**
 - **Perform General Receipt Inspection of Hardware**
 - **Perform Maintenance**
 - **Provide Logistics Products**
 - **Sparing Recommendations**
 - **Maintenance Instructions and Procedures**
 - **Reliability Centered Maintenance Analysis**
 - **Training Curriculum and Materials**
 - **Technical Manuals**
 - **Operating Procedures**



New DDS Payload Integration Eng Services Support Requirements (cont'd)



- **Task 4.3: Program Management**
 - **Task 4.3.1: Program Activity and Status Tracking and Reporting**
 - **Manage, Coordinate and Track Contractor's Program Activities**
 - **Program WBS**
 - **Master Schedule**
 - **Contract Milestones**
 - **Expenditures**
 - **Progress Reports**
 - **CDRLS and Other Deliverables**
 - **Generate Program Status Reports**
 - **Attend Technical and Working Group Meetings**
 - **Provide Summary / Minutes of the Proceeding**
 - **Develop and Make Presentations on Progress and Milestones**



Platform & Payload Integration Department: Code 40 Industry Day In-Service Hardware and Supplies

**NUWC Division Newport
23 Jan 2018**



New In-Service Hardware and Supplies Contract



- **Summary of Contract Scope:**
 - Currently in the initial stages of development.
 - Notionally, a 5 year IDIQ MAC to support engineering and technical services for systems engineering, technical analyses, mechanical and electrical design, manufacturing, installation, test and evaluation, and repair services for Launcher and Missile Systems components and assemblies.



New In-Service Hardware and Supplies Contract (cont'd)



- **Contract Details:**
 - **IDIQ MAC**
 - **Five (5) year Period of Performance**
 - **Acquisition Strategy: Unrestricted. Draft SOW to be released.**
 - **Level of Effort: TBD; CPFF and FFP**
 - **Unique Personnel: A group of key personnel may be requested covering designated areas of expertise; if requested, a resume will be necessary for each key person**
 - **Unique Certifications: None**
 - **Other Direct Costs (ODC's) are expected to be greater than 50% of total cost**
 - **Partial follow-on to: N66604-10-D-034**
 - **RFP Release: FY19Q1**



New In-Service Hardware and Supplies Contract (cont'd)



- **Contract Details (cont'd):**
 - **Clearance Level: Secret**
 - **Work Locations: ~10% Government-site, ~90% Contractor Site.**
 - **Facilities: TBD**
 - **Facility Security Clearance Required: Secret**
 - **Government Furnished Assets / Materials / Equipment / Information (GFA/M/E/I): Provided in Solicitation and upon award of contract**
 - **Organizational Conflict of Interest (OCOI) Clause Applies**



Platform & Payload Integration Department: Code 40 Industry Day

Rapid Prototyping

NUWC Division Newport

23 Jan 2018



Rapid Prototyping Development Areas



Design, develop, fabricate, test, install, analyze, document and deliver rapid prototype solutions associated with Code 40 products, systems, subsystems, support equipment and associated capabilities.

- Payload Launch / Retrieval Systems
- Payload Integration Systems and Payload Stowage / Handling Equipment
- Hatches, Trunks, Closures Equipment
- Payload Encapsulation Systems
- Simulators and Electronic Equipment
- Cables, Coatings, and Materials



Rapid Prototyping Development Areas (cont'd)



- Solutions are intended to allow Code 40 to develop a sufficient understanding of alternative solution sets that are deemed critical in providing improved performance, accelerated operational capability or response to an identified emergent threat.
- Prototypes shall be employed in performance demonstrations to assess their operational utility, explore and inform Concept of Operations development, mature technology, refine requirements and otherwise reduce the risk of current or anticipated capability gaps.
- Offerors may propose for one or more of the Prototype Development Areas.



New Rapid Prototyping Contract



- **Summary of Contract Scope:**
 - **5 year IDIQ MAC to support rapid prototyping of payload/launcher systems and sub-systems for the design/development, fabrication, test, installation, documentation and delivery of material solutions associated with Code 40 products, systems/subsystems, ancillary and peculiar support equipment, and associated capabilities.**



New Rapid Prototyping Contract (cont'd)



- **Contract Details:**
 - **New Contract Effort**
 - **IDIQ MAC**
 - **Five (5) year Period of Performance**
 - **Acquisition Strategy: Unrestricted. Draft SOW to be released.**
 - **Level of Effort: ~302,000 hrs; CPFF and FFP**
 - **Unique Personnel: A group of key personnel may be requested covering designated areas of expertise; if requested, a resume will be necessary for each key person**
 - **Unique Certifications: None**
 - **CMMI Level 3 or equivalent**
 - **SDP may be required**
 - **Other Direct Costs (ODC's) will be in the neighborhood of ~29% of total cost**
 - **RFP Release: FY18Q3**



New Rapid Prototyping Contract (cont'd)



- **Contract Details (cont'd):**
 - **Clearance Level: Secret**
 - **Work Locations: ~30% Government-site, ~70% Contractor Site**
 - **Facilities: Government will provide facilities for on-site personnel**
 - **Facility Security Clearance Required: Secret**
 - **Government Furnished Assets / Materials / Equipment / Information (GFA/M/E/I): Provided in Solicitation and upon award of contract**
 - **Organizational Conflict of Interest (OCOI) Clause Applies**



New Rapid Prototyping Requirements



- **Six Prototype Development Areas:**
 - **Payload Launch Retrieval Systems**
 - Development of equipment and/or systems for launch & retrieval of payloads, autonomous vehicles, towed bodies, and measurement devices.
 - **Payload Stowage / Handling Equipment & Payload Integration Systems**
 - Development and/or modification of equipment and/or systems for shipping, stowage / handling of payloads, autonomous vehicles, towed bodies, and onboard and off-board payload integration systems
 - **Hatches, Trunks, & Closures Equipment**
 - Development of equipment for hatches, trunks and closures for platform access



New Rapid Prototyping Requirements (cont'd)



- **Six Prototype Development Areas (cont'd):**
 - **Payload Encapsulation Systems**
 - Development of methods and equipment to encapsulate weapons and other payloads to interface with and enable operation
 - **Simulators & Electronic Equipment**
 - Development of mechanical and electrical equipment, circuit cards, computers and software to simulate missiles, payloads, and their associated electrical and mechanical interfaces and properties
 - **Cables, Coatings, & Materials**
 - Development and evaluation of alternate materials, coatings and manufacturing processes for inboard and outboard cables, connectors, and assemblies



New Rapid Prototyping Requirements (cont'd)



- **Primary Tasks**
 - **Task 4.1: Conceptual Design**
 - **Task 4.2: Prototype Design, Fabrication, Integration & Test**
 - **Task 4.3: Ship Alteration & Prototype Installation**
 - **Task 4.4: Test & Evaluation**
 - **Task 4.5: Transition to Production**
- **Assumptions:**
 - **Full project orders requiring work under SOW tasks 4.1 through 4.5 may include a combination of the following (70%):**
 - **Small Projects (< 1 year)**
 - **Medium Projects (1 to 2 years)**
 - **Large Projects (2+ years)**
 - **Stand alone task orders specifically for one of the five requirements described in the SOW (30%)**



New Rapid Prototyping Requirements (cont'd)



- **Task 4.1: Conceptual Design**
 - **Concept Design Analysis & Assessment Studies**
 - Trade studies, technical investigations and reviews to compare the performance, cost and development time associated with the applicable prototype options
 - **Performance Predictions**
 - Simulate candidate implementations using computer based modeling tools and numerical methods
 - **Analysis of Operation**
 - Analyses of current and future operations and missions and make recommendations to develop new system or subsystem solutions
 - **Compatibility Analysis**
 - Conduct compatibility studies and prepare drawings of proposed prototype solution sets to demonstrate compatibility with platform systems and their interfaces
 - **Concept Specification Development & Review**
 - Document prototype solution set specifications taking into account operational, performance, interface, space, weight, cost, and schedule



New Rapid Prototyping Requirements (cont'd)



- **Task 4.2: Prototype Design, Fabrication, Integration & Test**
 - **Prototype Design & Development**
 - **Generate and document the functional and detailed design of all electrical, mechanical, software and human interface components**
 - **Develop a tailored System Engineering Plan (SEP) to document the prototype set development process which includes requirements allocation, risk management, configuration management, software integration, hardware integration and test and evaluation**
 - **Prototype**
 - **Build, test and deliver a prototype set or sets consisting of systems, systems of systems, engineered materials, electronic devices, electronic interfaces, mechanical devices, and support materials to sustain the equipment and facilitate operation during test, evaluation and demonstration**
 - **Prototype Integration & Validation Testing**
 - **Generate, update, maintain, and execute plans and procedures for integrating, testing and evaluating the end-to-end prototype set, its subsystems, modules, components and devices prior to operational demonstration**



New Rapid Prototyping Requirements (cont'd)



- **Task 4.3: Ship Alteration & Prototype Installation**
 - **Shipboard Installation & Alteration Package Development**
 - Develop, update and maintain a Temporary Alteration (TEMPALT) or Temporary Modification (TEMPMOD) data package that describes the approach planned for temporary installation of the prototype set on a commercial or Naval test platform
 - **Prototype Installation**
 - Assemble and install the prototype set at shipyards, on submarines, on surface ships, and aboard commercial ships on the platform's outer surface or within the platform in a designated equipment space in preparation for in water demonstration.
 - **Systems Operation & Verification Testing**
 - Perform a System Operation and Verification Test (SOVT) with the installed prototype set at the completion of the platform installation. The contractor shall verify that the installed prototype set is fully operational and interface requirements are met as defined in system technical manuals



New Rapid Prototyping Requirements (cont'd)



- **Task 4.4: Test & Evaluation**
 - **Test & Evaluation Planning**
 - **Develop, update and maintain plans and procedures to test and evaluate performance requirements of a prototype set after installation on the test platform**
 - **Preparation for Testing**
 - **Make all preparations needed to execute test evolutions with the prototype set in a water, land or air environment. The contractor shall perform upgrades, overhauls or tune-ups of test vehicles and equipment deployment apparatus to support in-water testing for the required test duration**
 - **Test Execution**
 - **Perform the test and evaluation identified in the test plan to demonstrate, evaluate, verify and validate performance of the prototype set**
 - **Post Test Analysis**
 - **Perform analysis and technical investigations of data collected during operation testing of the prototype set for the purpose of assessing system performance relative to test objectives and system technical requirements**



New Rapid Prototyping Requirements (cont'd)



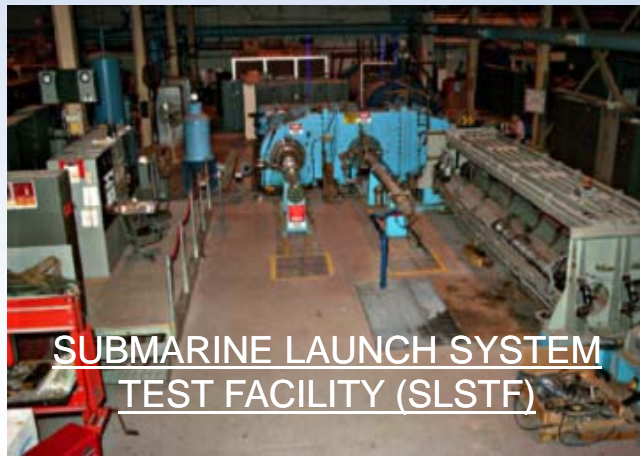
- **Task 4.5: Transition to Production**
 - **Develop design documents for the prototype set that describe a product baseline compatible with production level Technical Data Package (TDP)**
 - **Provide descriptions of candidate production system architecture, identification of parts, mechanical drawings, electrical schematics, software functional flow, computer network architecture, and operator-machine interfaces**
 - **Provide an upgraded design document that addresses issues associated with parts obsolescence, environmental qualification testing, immunity to external noise sources, long term endurance and reliability, safety, and information assurance qualifications**

Code 40 Facility Tour



VIRGINIA PAYLOAD TUBE
FACILITY (VPTF)

*UNIQUE FACILITIES FOR LAUNCHER SYSTEM T&E AND PAYLOAD
INTEGRATION ARE SUPPORTED BY CONTRACTORS*



SUBMARINE LAUNCH SYSTEM
TEST FACILITY (SLSTF)



THREE INCH LAUNCHER
TEST FACILITY (TILTF)