



Code 85

Propulsion Test Facilities (PTF) Operation and Maintenance Services

Pre-Solicitation Conference

NUWC Division Newport
Undersea Collaboration & Technology
Outreach Center (UCTOC)
August 21, 2014

Agenda

- **Introduction/Ground Rules**
- **Disclaimer Statement**
- **Anticipated Procurement Strategy**
- **Technical Requirements and Overview**
- **Conclusion/Wrap-up**
- **Facility Tour**

Introduction/Ground rules

- Introduction of Participants
- Intent of this Pre-Solicitation Conference
 - Encourage competition by:
 - Providing technical information to provide potential offerors a better understanding of the technical requirements
 - For Prime and Subcontracting opportunities
 - Ensuring all potential offerors receive and have access to the same information
- Technical “Q&A” is encouraged
 - Questions will be answered either today or via SeaPort-e Portal
 - No questions about incumbent contractor

Introduction/Ground rules (cont.)

- 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 SeaPort-e Portal
- This briefing, and attendees list, will be posted to the SeaPort-e Portal and the NUWCDIVNPT Electronic Reading Room:
 - <http://www.navsea.navy.mil/nuwc/newport/pages/ElectronicReadingRoom.aspx>
- DO NOT directly contact NUWC technical code after today - all further dialogue will be accomplished via the Q&A feature on the SeaPort-e Portal
- 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 85 PTF Operation and Maintenance services requirement 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.***

Anticipated Procurement Strategy

- This is a follow-on of NUWCDIVNPT requirement N00178-04-D-4119/N431
 - 2 Offers received
 - SAIC (Incumbent)
- SeaPort-e Task Order, Zone 1, Northeast
 - Prime
 - Sub
- Five (5) year Period of Performance
 - Base year plus 4 option years
- Full and Open Competition (Unrestricted)
- Contract LOE: 315,100 hrs. - CPFF
- Organizational Conflict of Interest (OCOI) Clause Applies
- Clearance Level: Secret
- CMMI Level III or equivalent
- Software Development Plan (SDP) and rational required
- Personnel certifications required for IT, HAZMAT, explosives, etc.

Anticipated Procurement Strategy (cont.)

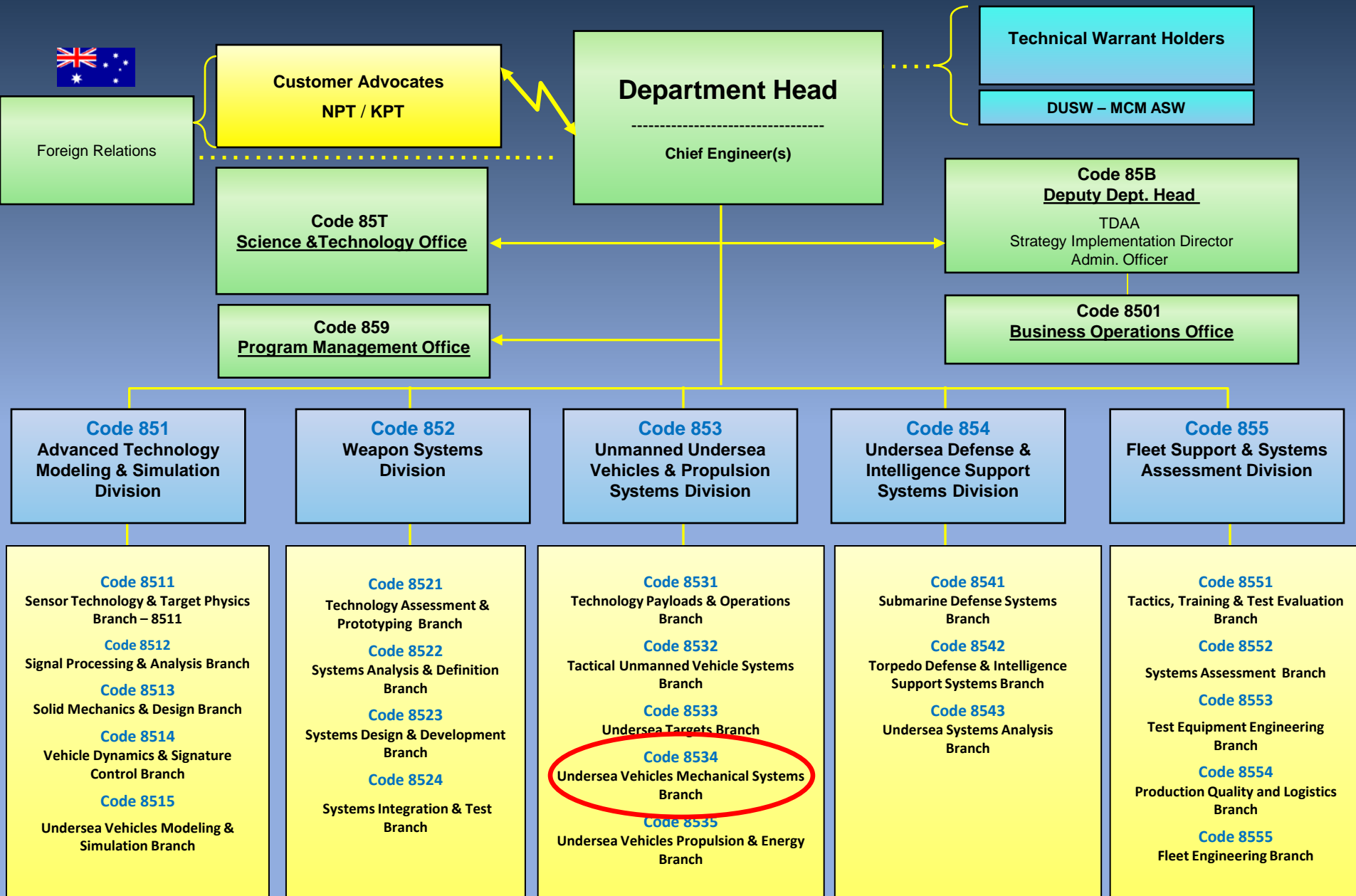
- Other Direct Costs (ODC's) will be less than 45% of total cost
- Estimated Schedule:
 - RFP Release: late October 2014
 - Proposals Due: 40 days after RFP release
 - Award Date: May 2015
- Work Locations
 - 99% Government-site
 - 1% Offsite
- Facilities
 - Government will provide facilities for on-site personnel
 - Facility security clearance required: Secret
 - Government Furnished Materials/Equipment/Information (GFM/E/I)
 - Provided in Solicitation and upon award of contract



Propulsion Test Facility (PTF)

Technical Requirements & Overview

USW Weapons, Vehicles, and Defensive Systems Department



Propulsion Test Facility (PTF)

- Customers
 - PMS 404 (US Undersea Weapons)
 - PMS 406 (Unmanned Maritime Systems)
 - ONR (Office of Naval Research)
 - NAVSUP (Naval Supply System)
 - DLA (Defense Logistics Agency)
 - DARPA (Defense Advanced Research Projects Agency)
 - NUWC
 - NSWC
 - Royal Australian Navy (RAN – Armaments Cooperative Agreement)
 - FMS (Foreign Military Sales)
 - Government Laboratories
 - University Laboratories
 - Private Industry

Propulsion Test Facility (PTF)

- Located at Naval Undersea Warfare Center Division within Naval Station Newport, RI
- NUWCDIVNPT Undersea Weapons, Vehicles, and Defensive Systems Department, Code 85
- The PTF complex consists of 10 Buildings
- This complex is the US Navy's only land-based facility for full system mechanical testing for torpedoes and other underwater systems



PTF Capabilities Overview

The Propulsion Test Facility is the premier facility of its type in the world.



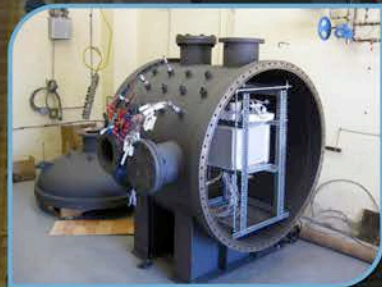
Remote Control Room

Open Cycle Test Facility

Supports land-based testing of undersea vehicles and components throughout full power and depth spectrums.

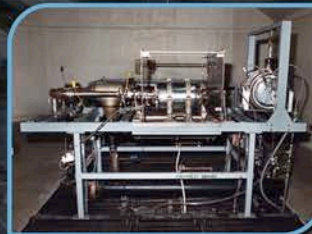


Electric Propulsion Test Facility



Provides testing capabilities to evaluate and advance the high power and high energy dense systems being developed for UUVs.

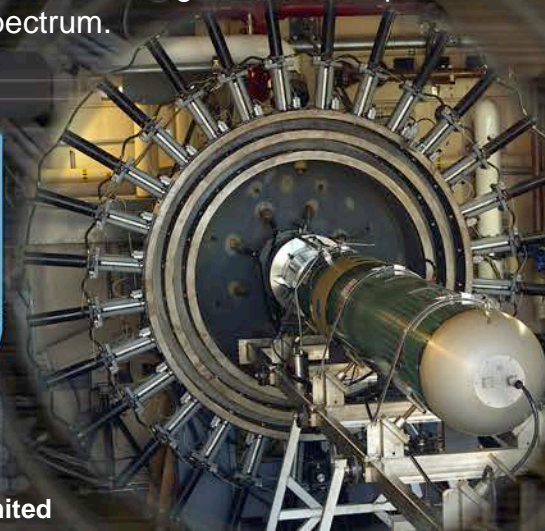
High Energy Chamber



Total containment structure used to support testing of closed cycle, high energy systems.

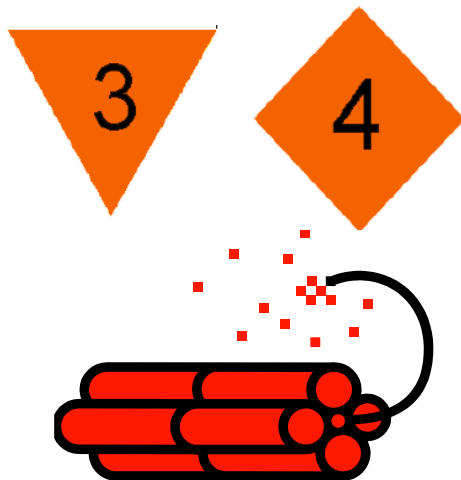
Deep Depth Test Facility

Provides testing of integrated undersea vehicle propulsion systems throughout their full power and depth spectrum.



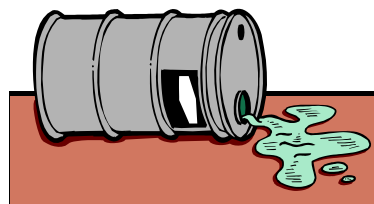


Excellence in Land-Based Testing



PTF Safety Concerns

**SAFE OPERATIONS
ARE A MUST!**



Safety Compliance

Selected open access documents (Distribution Statement A):

Title 10 Part 34	Licenses For Industrial Radiography and Radiation Safety Requirements for Industrial Radiographic OPERATIONS
Title 29 Part 1910	Occupational Safety and Health Standards
Title 40 Part 260	Hazardous Waste Management System: General
Title 40 Part 261	Identification and Listing of Hazardous Waste
Title 40 Part 262	Standards Applicable to Generators of Hazardous Waste
Title 49 Part 172	Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements

The full document list is included in the Statement of Work

Safety Compliance

Selected restricted access documents (Distribution Statement D):

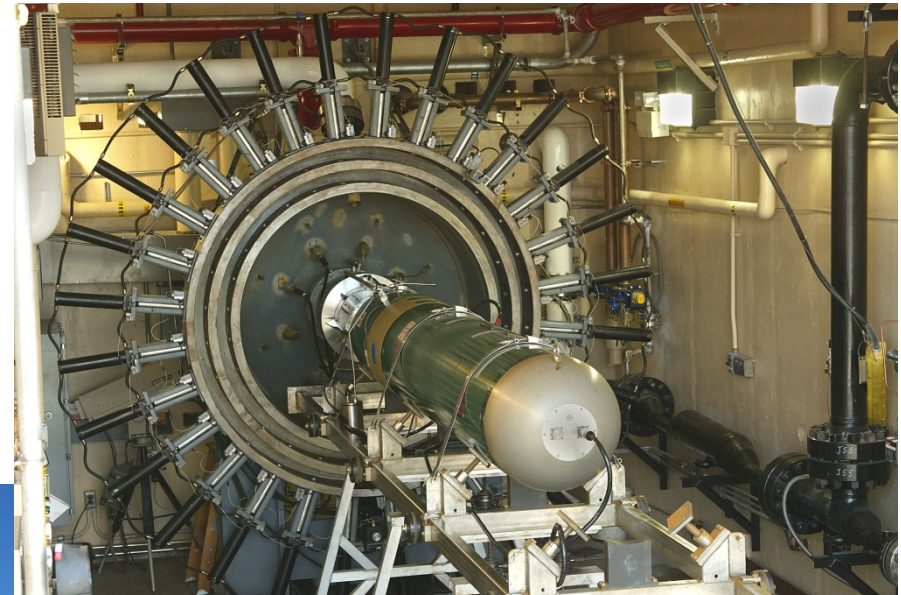
NAVSEA OP 3199	Handling and Storage of Liquid Propellants
NAVSEA OP 4098	Handling Ammunition, Explosives and Hazardous Materials with Industrial Material Handling Equipment
NAVSEA OP 4461	On-Station Movement of Ammunition and Explosives by Truck and Railcar
NAVSEA OP 5	Ammunition and Explosive Safety Ashore Regulations for Handling, storing, Production, Renovation, and Shipping
OPNAVINST 5100.8G	Navy Safety and Occupational Safety and Health Program
OPNAVINST 5100.23G	Navy Occupational Safety and Health (NAVOSH) Program Manual
OPNAVINST 8020.14	Department of the Navy Explosives Safety Policy
NUWC DIVNPTINST 5090.3D	Hazardous Material control Program
NUWC DIVNPTINST 5100.5B	Occupational Safety and Health (OSH) Program
NUWC DIVNPTINST 8015.1D	Conventional Ordnance Inventory Accountability
NUWC DIPTINST 8020.4B	NUWC DIVNPT Explosive Safety Policies, Requirements, and Procedure manual
NUWC DIPTINST 8020.9B	NUWC DIVNPT Conventional Ordnance/Explosive Handling Qualifications and Certification

The full document list is included in the Statement of Work

Unique PTF Capabilities

Deep Depth Test Facility (DDTF)

- Torpedo, UUV, & Underwater systems Test Capability
- 3500 psig 60" by 25' Pressure Vessel
- 1000 HP Dynamometer
- 155 gpm water supply
- Depth simulation on water and exhaust
- Rated for 3000lbs Otto Fuel II and 36 lbs 1.4 explosives



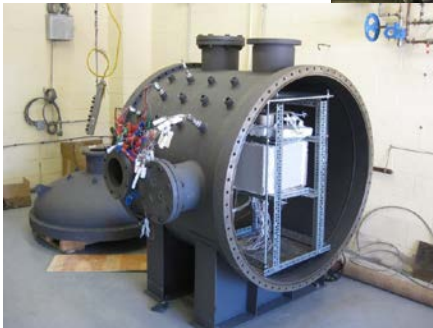
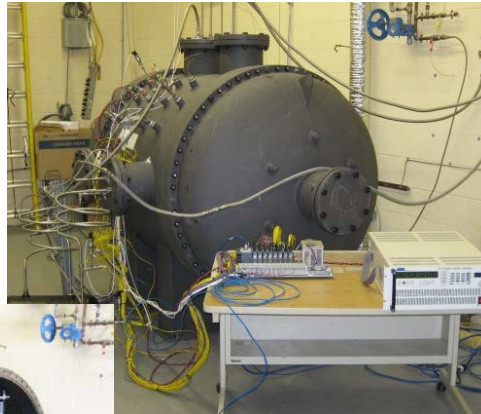
Propulsion Noise Test Facility

- 50' Sphere
- Rated for 100 psig @ centerline
- Holds ~500,000 gallons of water
- Measure radiated noise and implosion pressure waves

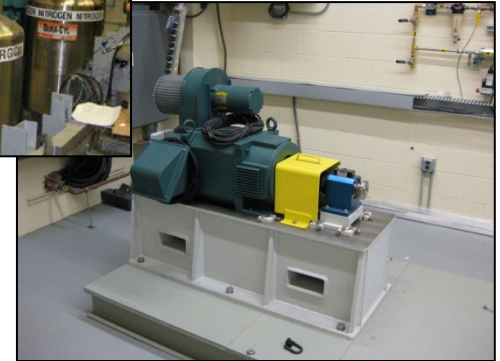
Specialized PTF Capabilities

Fuel Cell Test Facility

- PEM or SOFC
- Capability of Testing Pressurized SOFC
- 70 HP motoring Dyno and Load bank



**Pressurized SOFC
Pressure Vessel**



Electric Propulsion Test Facility

- 1 MW DC power Supply
- Primary & Secondary Batteries

Propulsion Test Facility (PTF)

Technical Requirements

- Operation Tasks
 - Operate facility in accordance with Navy explosive requirements
 - Operate facility in accordance with OSHA, environmental, and Navy safety and environmental standards
 - Conduct system level tests of Torpedo and UUV propulsion
 - Prepare facility for use
 - Prepare test item
 - Integrate test item
 - Teardown test item
 - Restore facility to pre-test conditions
 - Conduct component level testing

Propulsion Test Facility (PTF)

Technical Requirements (cont)

- Maintenance Tasks
 - Conduct all weekly and monthly routine maintenance
 - Repair mechanical, electrical, fluid, temperature conditioning systems, burners, steam generators, and waste collection systems
 - Maintain Chemistry Lab equipment
 - Scanning Electron Microscope
 - Maintain PTF Computers and Networks (Non-NMCI)
 - Scans and patches
 - PTF closed enclave
 - NUWC RDTE computers
 - Software installation and updates
 - DOD/NAVSEA IT compliance

Propulsion Test Facility (PTF) Technical Requirements (cont)

- Facility Upgrade Tasks
 - Design and install new Test Stands
 - Propulsion systems
 - Energy systems
 - Propulsion components
 - Experimental systems
 - Upgrade PTF computers
 - Data acquisition systems
 - Facility control systems
 - Test Stand programming
 - Labview

Propulsion Test Facility (PTF)

Technical Requirements (cont)

- Engineering Services
 - Design components/systems
 - Facility Tests Stands
 - Facility Systems
 - Prepare and maintain facility SOP's
 - Create and maintain facility drawings
 - Prepare Test Plans/Test Requests
 - Develop recommended schedules and cost estimates

Propulsion Test Facility (PTF)

Technical Requirements (cont)

- **Studies and Analysis Services**
 - Engineering studies of facility systems
 - Analyze system capabilities and make recommendations to correct or improve system performance
 - Perform studies and analysis related to experimental development
 - Investigate & make recommendations of the environment impact of facility operations
- **Inventory and Logistics Services**
 - Maintain inventory control of required operating supplies and equipment
 - Develop procedure for property control
 - Provide staging and shipping for experimental test items
 - Move material between buildings

Propulsion Test Facility (PTF)

Technical Requirements (cont)

- Quality Assurance/Configuration Management
 - Implement and operate quality assurance program
 - Perform/prepare independent verification and validation reports
 - Develop and maintain a Configuration Management Plan
- Business Operation Support Services
 - Analyze fiscal funding profile & master plans
 - Prepare
 - Logistics documents,
 - Cost estimates
 - Manpower reports
 - Make recommendations for cost recovery

Conclusion/Wrap-up

- Thank you for your interest in the Code 85 Propulsion Test Facilities Operation and Maintenance Services Contract
- Ensure that you are on the attendees list or that your name is removed if you do not want to be on the list
- This briefing and the attendees list will be posted to the SeaPort-e Portal and the NUWCDIVNPT Electronic Reading Room
 - <http://www.navsea.navy.mil/nuwc/newport/pages/ElectronicReadingRoom.aspx>
- “Q&A” (today’s and any subsequent) will be posted to the SeaPort-e Portal
- DO NOT contact today’s presenters
 - All further dialogue will be accomplished via the Q&A feature on the SeaPort-e Portal

Facility Tour

- A Tour at the **UNCLASSIFIED** level will be provided to groups of up to 20 people at a time
- Your company **MUST** have submitted a JPAS visitor request in order to attend the tour
- Tour will be scripted, no questions allowed during tour
- Follow-up Questions can be submitted to the SeaPort-e Portal