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Code 15
Towed Array Handling Equipment Facility (TAHEF) Operations

Pre-Solicitation Conference

NUWC Division Newport

Undersea Collaboration & Technology Outreach Center (UCTOC)

May 20, 2014

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Agenda

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

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Introduction/Ground rules

- Introduction of NUWCDIVNPT 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
    - 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 SeaPort-e Portal
  - No questions about incumbent contractor

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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 the attendees list will be posted to the SeaPort-e Portal, and via SENEDIA, NCMA and AFCEA distribution
- 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)

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Disclaimer Statement

- **Remarks today by Government officials involved in the Code 15 TAHEF Operations 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***

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Anticipated Procurement Strategy

- This is a follow-on of NUWCDIVNPT requirement N00178-04-D-4018 N408
  - Single Offeror
  - BAE
- 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: 308,165 hrs. - CPFF / FFP
- Organizational Conflict of Interest (OCOI) Clause Applies
- Clearance Level: Secret

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Anticipated Procurement Strategy (cont.)

- Other Direct Costs (ODC's) will be less than 10% of total cost
- Estimated Schedule:
  - RFP Release: Sept 2014
  - Proposals Due: 40 days after RFP release
  - Award Date: Dec 2014
- Work Locations
  - 100% Government-site
    - Travel
      - Vendor site visits
      - Program related meetings
- 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

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Requirements

- Hazardous Materials (HAZMAT) and Safety
  - Track all hazardous materials at the TAHEF in accordance with NUWCDIVNPT and OSHA requirements
  - Maintain a safety program to support TAHEF operations
    - Energy Control (Lock Out/Tag Out) Program
    - Hazardous Material Control Program
- Training
  - Create and maintain a technician training and certification program
  - Create and maintain a matrix detailing the specific training credentials of each employee
  - Update the training matrix each time technician personnel change or acquire new certifications

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Towed Array Handling Equipment Facility

Technical Requirements

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Code 15 Organization

15 Sensors & SONAR Systems Department Head

15A Deputy Department Head

15S Administrative Assistant

1501 Director, Business Operations

159 Director, Programs & Contracts

15A Customer Advocacy

15B Director, Strategy & Special Projects

15E Director, Engineering

15T Director, Science & Technology

15A Information Technology

151 Science and Technology Division

- 1511 Automation Algorithm Development
- 1512 Devices, Sensors and Materials R&D
- 1513 Signal Processing Algorithm Development

152 Advanced Concepts Division

- 1521 Developmental Systems Engineering
- 1522 Prototype Development
- 1523 Technology Integration
- 1524 Concepts and Experimentation

153 Sensors and Arrays Division

- 1531 Underwater Sound Reference
- 1532 Towed and Deployed Arrays Engineering
- 1533 Hull Arrays and Distributed Sensors Engineering
- 1534 Handling Systems Engineering
- 1535 Fleet Sensors and Cables Engineering

154 Submarine and Surveillance Systems Division

- 1541 Submarine and Surveillance Systems Engineering
- 1542 Passive Systems Engineering
- 1543 Submarine and Surveillance Systems Integration
- 1544 Submarine and Surveillance Test, Evaluation and Analysis
- 1545 Submarine and Surveillance Training, Logistics and Fleet Support

155 Surface Ship and Aviation Systems Division

- 1551 Surface and Aviation Systems Engineering
- 1552 Active Systems Engineering
- 1553 Surface and Aviation Systems Integration
- 1554 Surface and Aviation Test, Evaluation and Analysis
- 1555 Surface and Aviation Training, Logistics and Fleet Support

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Towed Array Handling Equipment Facility

- Located at the Naval Station Newport, RI
- NUWCDIVNPT Sensors and SONAR Systems Department, Code 15
- 30,000 FT^2 Industrial and Office facility
- NAVSEA Certified Designated Overhaul Point for Submarine Towed Array Handling Equipment
- Operations are conducted in accordance with the policies and practices established in the TAHEF Quality Management Plan NUWCNPT Technical Document 11,249
- ISO 9001-2008 Registered

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Towed Array Handling Equipment Facility

- Towed Array Handling Systems
  - OA-9070A/B/E/BQQ Deployable Array Working Group
  - OK-542/A/BQ Thinline Towed Array Handling Equipment
  - OK-276A/B/C/T/BQ & OK-418/BQ Reelable Towed Array Handling Systems
  - OK-634/BSY Towed Array Handling and Stowage Group
  - OK-410(V) Handling and Stowage Group
- Customers
  - Naval Supply System
  - Naval Sea Systems Command
  - Portsmouth Naval Shipyard
  - Norfolk Naval Shipyard
  - Pearl Harbor Naval Shipyard
  - Puget Sound Naval Shipyard

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Towed Array Handling Equipment Facility

- Major Overhaul, Refurbishment, Test and Evaluation Products
  - Hydraulic Control Units
  - Cable Drive Units
  - Hydraulic Motors, Valves and Locks
  - Control & Indicator Units
  - Universal & Electro-optical Slip Ring Assemblies
  - Outboard Sensor Assemblies
  - Pinch Roller Assemblies
  - OK-410 Winch Systems
  - OK-542 Capstan Units
  - OK-542 Stowage Drum/Levelwind Units

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Towed Array Handling Equipment Facility

Technical Requirements

- Operations of the TAHEF
  - Operate Material Handling Equipment (Government Furnished Equipment (GFE)) to move products into, within and out of the Facility
  - Overhaul, Test and Prepare Towed Array Handling Systems (TAHS), Towed Array Handling Equipment (TAHE) and components for Certification
  - Design, develop and fabricate special purpose tools, fixtures and test equipment
  - Test proposed and developmental TAHS, TAHE and components to be installed on ships and submarines
  - Apply software upgrades related to the operation and maintenance of special tools and test equipment used in the TAHEF
  - Perform failure analysis and failure analysis reporting

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Towed Array Handling Equipment Facility

Technical Requirements (cont.)

- Support Tasks
  - Operating Material and Supplies (OM&S)
    - Maintain OM&S records in Enterprise Resource Planning (ERP) to ensure accurate material status for all TAHEF inventory
  - Integrated Logistics Support (ILS)
    - Support production control, scheduling, packaging, handling and storage and preparation for shipping
    - Use TAHEF Web-Based Tools & Software to track and control logistics data items
    - Maintain a repository for logistics documentation
    - Provide product quality and supplier performance data in accordance with Product Data Reporting and Evaluation Process (PDREP)

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Towed Array Handling Equipment Facility
Technical Requirements (cont.)

- Support Tasks (cont.)
  - Configuration Management
    - Database Maintenance
      - Maintain Databases to track Configuration Data Items and documentation versions
        - Data Base entries are considered maintaining the Data Base
    - Document Control
      - Maintain a Technical Publications Library
      - Generate, distribute and provide proper storage, retrieval and disposal of Technical Documentation
  - Quality Control
    - Operate and maintain a quality control program in accordance with the requirements of ISO 9001-2008 Quality Standards and the TAHEF Quality Management Plan
    - Review processes and provide recommendations for improvements

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Technical Requirements (cont.)

- Support Tasks (cont.)
  - Calibration and Handling Equipment Control
    - Track all calibration required test and measurement equipment in accordance with NUWCDIVNPT METCAL Program requirements
    - Track all handling equipment certification in accordance with NUWCDIVNPT safety and handling equipment

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Technical Requirements (cont.)

- Support Tasks (cont.)
  - Equipment Maintenance and Upgrades
    - Maintenance
      - Maintain all equipment and tools in the facility
    - Upgrades and Modernization
      - Implement upgrades and improvements. This includes design, fabrication, layout, installation and verification of functional operation of the upgraded equipment

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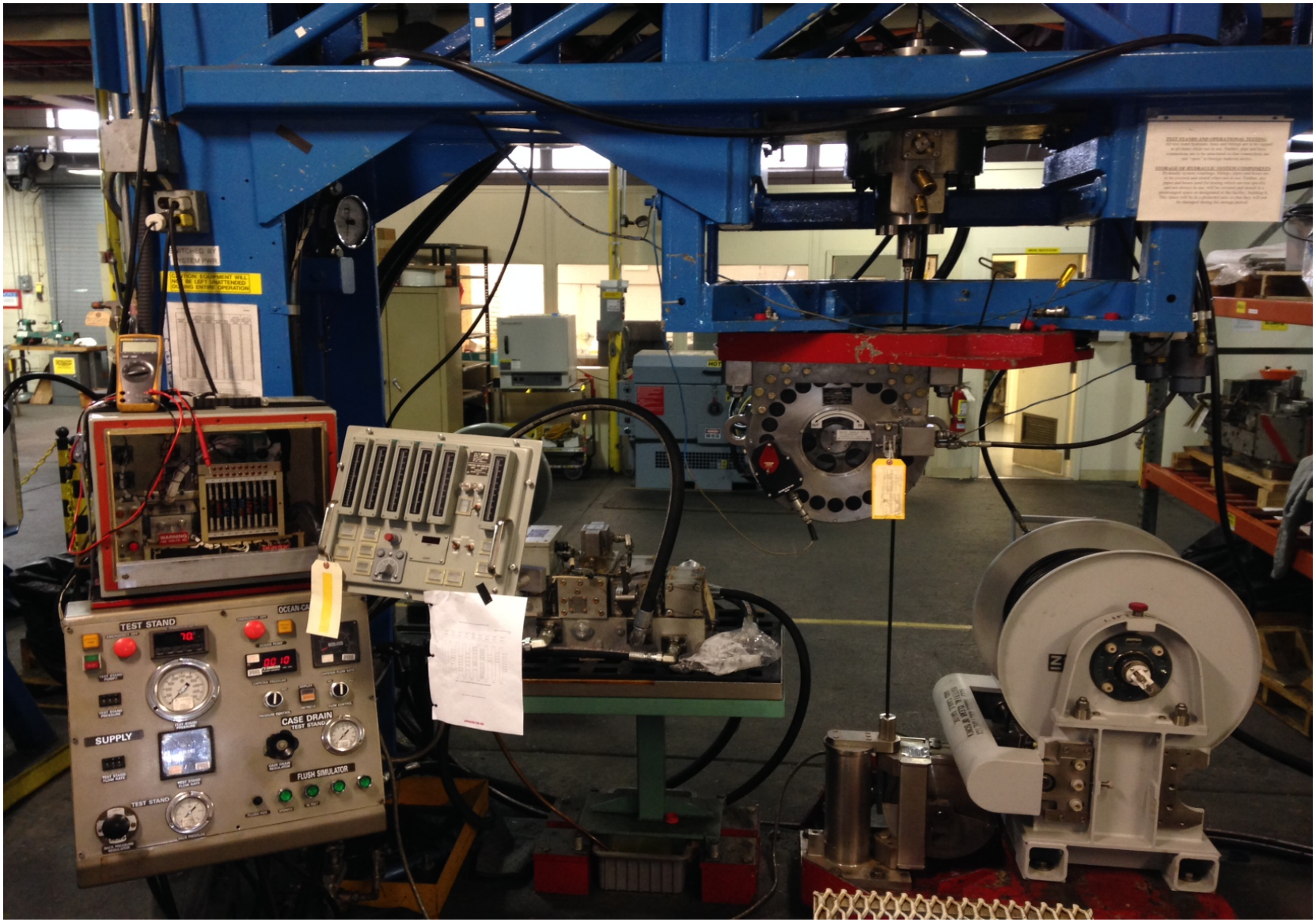
Towed Array Handling Equipment Facility

OK-276 Test & Integration Equipment



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OK-542 Test & Integration Equipment

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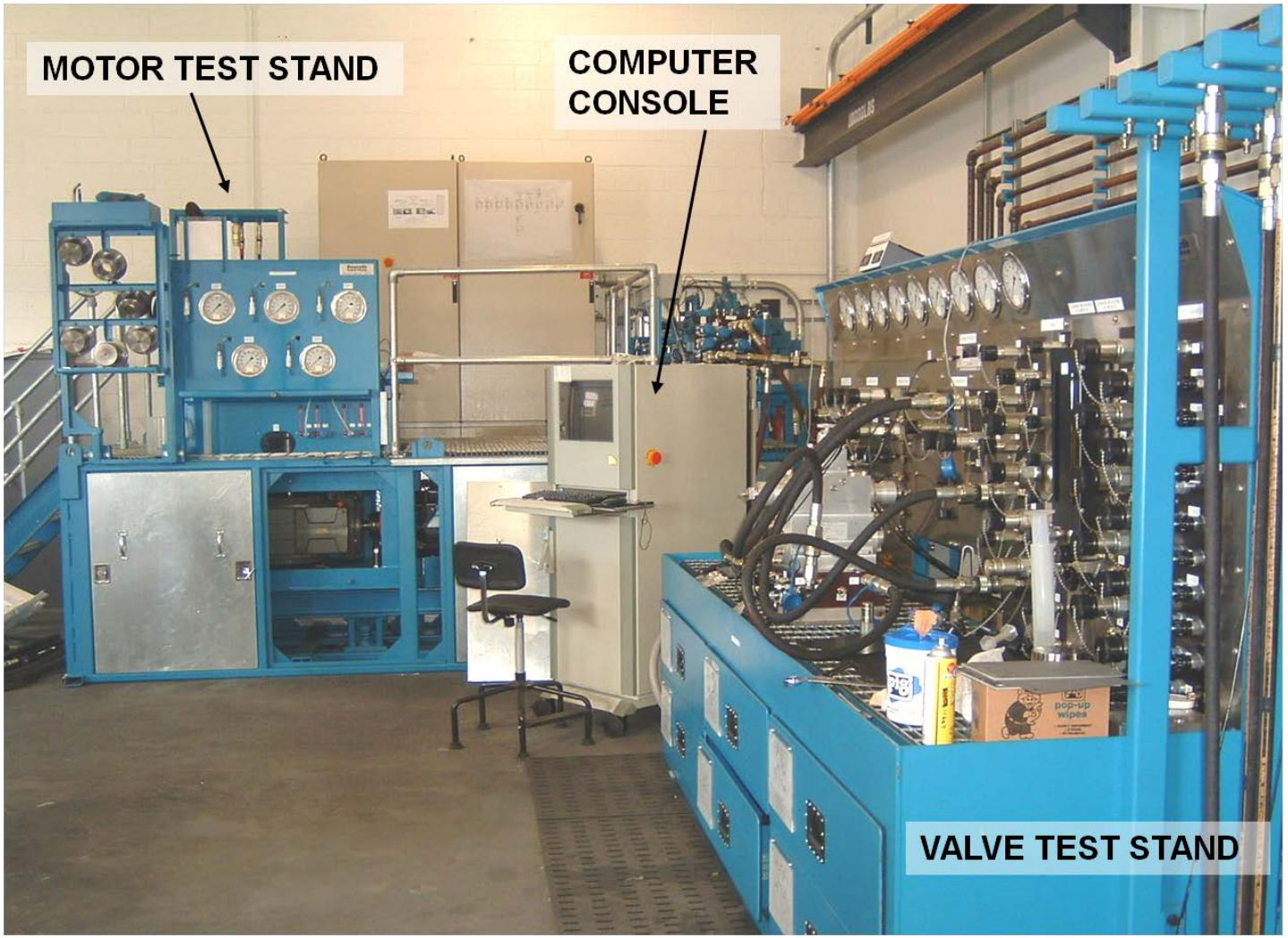
Towed Array Handling Equipment Facility

Universal Test Stand (UTS)



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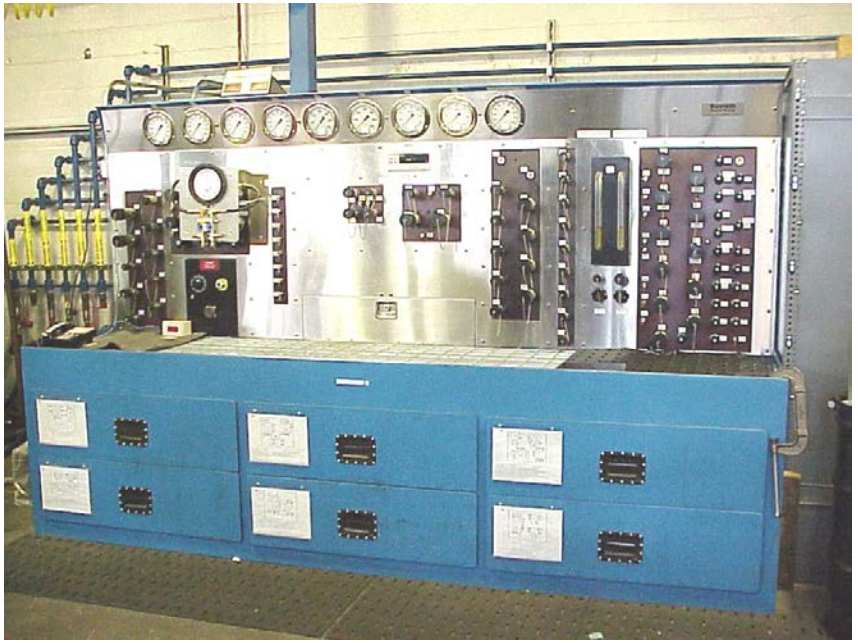
Towed Array Handling Equipment Facility

Universal Test Stand (UTS) LRU Test Capability

Universal Motor Test Stand (UMTS)

Dynamic Performance Testing of Hydraulic Motors to 45 GPM and 8,300 ft-lbs Torque

Universal Valve Test Stand (UVTS)



Dynamic Performance Testing of Hydraulic Valves to 45 GPM

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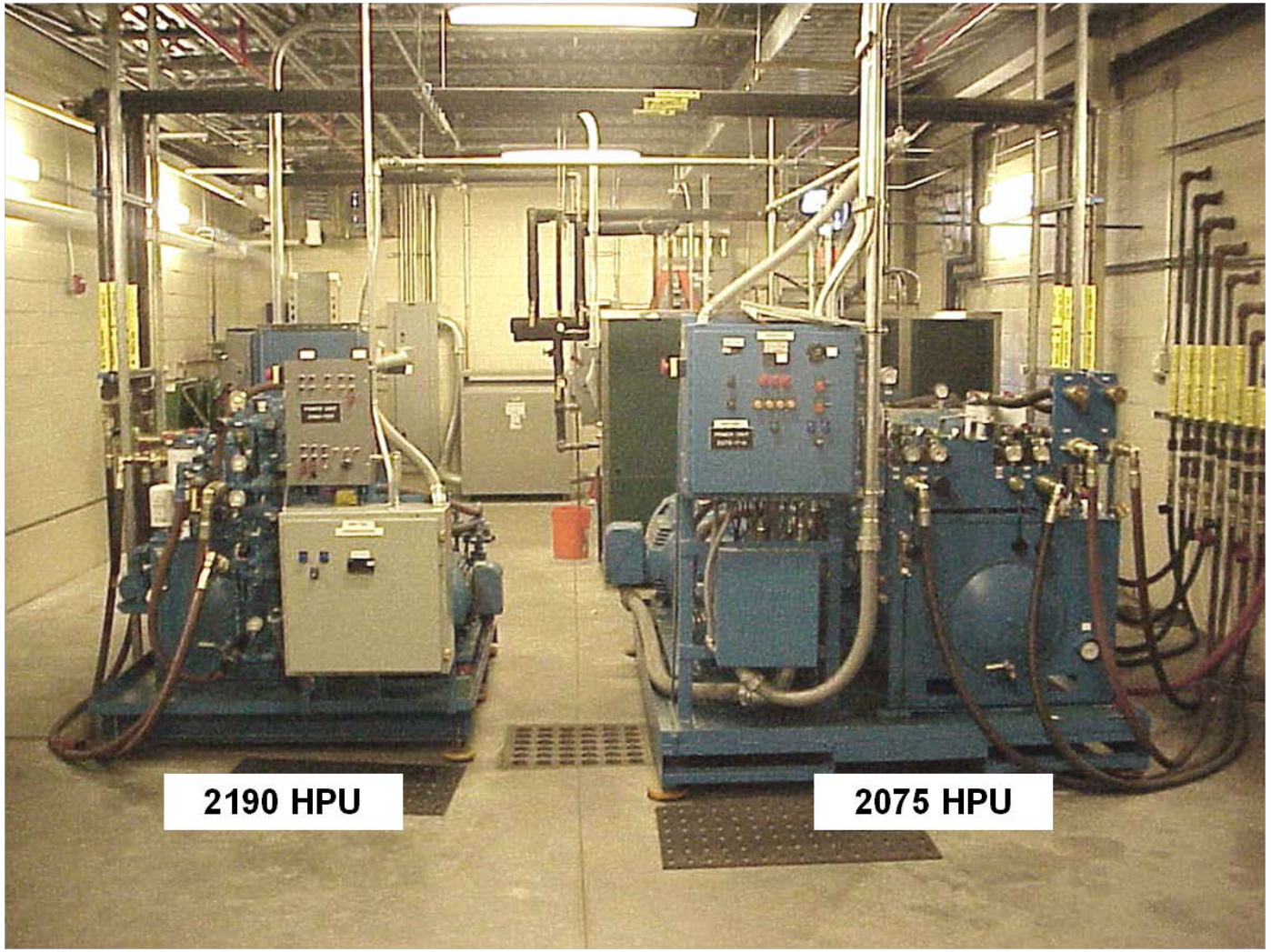
Towed Array Handling Equipment Facility

Universal Test Stand Facility Power Units



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Universal Motor Test Stand (UMTS)

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Universal Motor Test Stand (UMTS)

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Towed Array Handling Equipment Facility

Universal Motor Test Stand (UMTS)

- UMTS
  - Circuit control manifold utilizes hydraulic proportional valves to control flow and pressure
    - Unit Under Test (UUT) inlet and outlet pressure adjustment
    - Hydraulic motor UUT - hydrodynamic brake test capability
    - Combine motor with circuit control valve for dynamic test inspection
  - Product vertical mount expedites installation
    - Pilot positioning fixtures – designed for customer unique UUT interface
    - Drive insert fixtures – quickly adapts test product to UMTS

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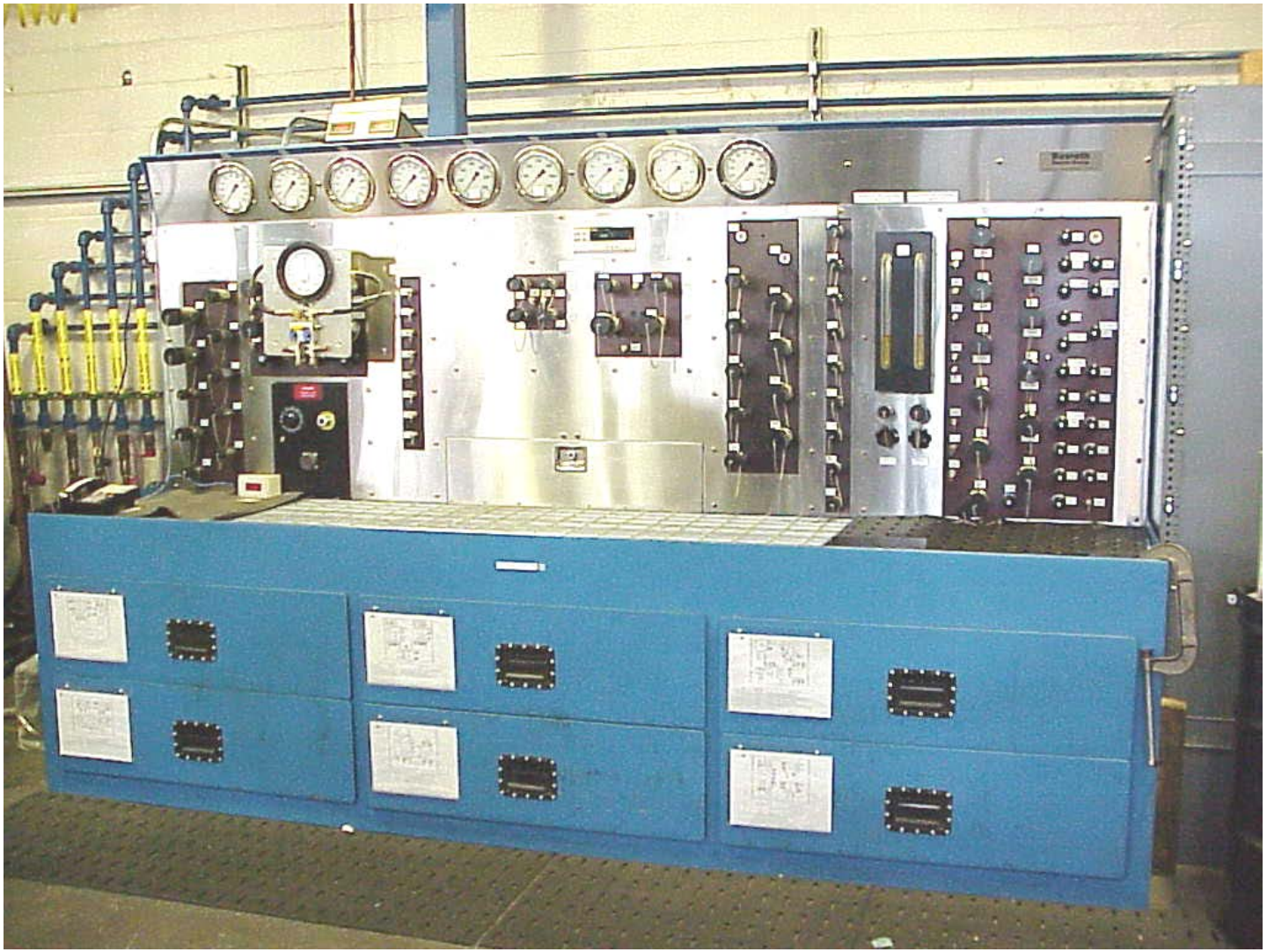
Universal Valve Test Stand (UVTS)



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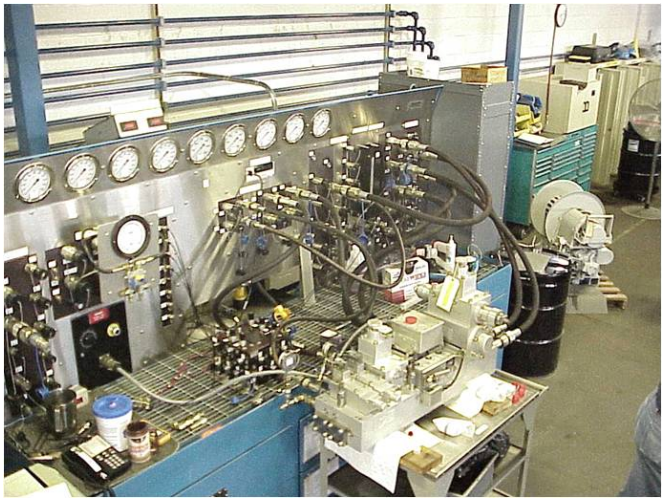
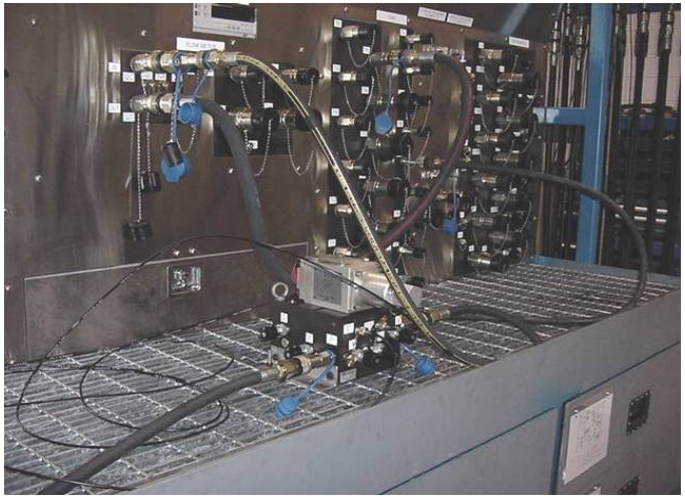
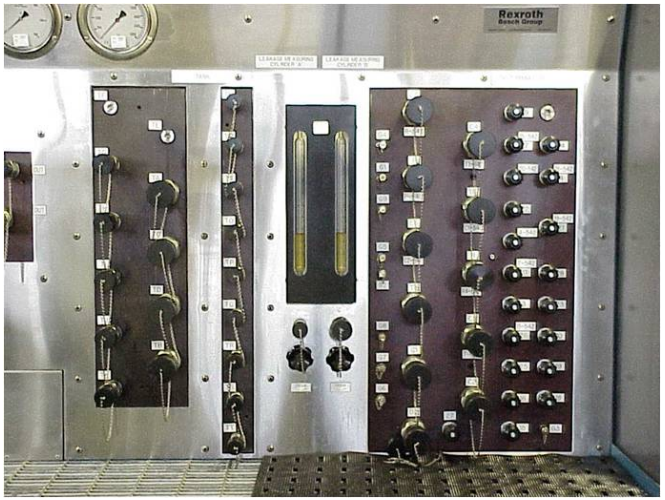
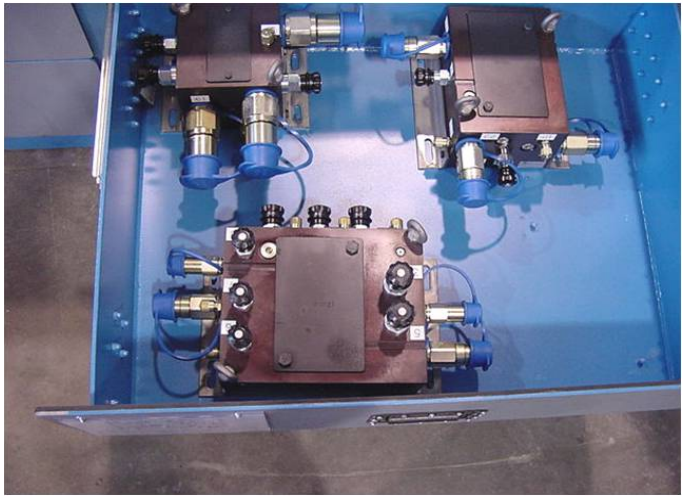
Universal Valve Test Stand (UVTS)









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Towed Array Handling Equipment Facility

Universal Valve Test Stand (UVTS)

- UVTS
  - Breadboard design to facilitate product circuit setup and test
  - UUT Custom Test Manifolds
    - Test circuit cartridge valves
    - Top mounted test valve manifold block
  - UVTS circuit manifold utilizes hydraulic proportional valves to control oil direction, flow and supply pressure
  - Flow bench QD bulkheads
    - Manual and proportional backpressure control
    - Positive displacement flow meters
    - Main/Auxiliary supply and return bulkheads
    - Pressure transducers (RV protected), redundant point source panel mount gauges

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Towed Array Handling Equipment Facility

Universal Test Stand (UTS)

- Control Console
  - Labview user interface allows unique product acceptance test procedure development
  - Tailored program expedites production testing and engineering evaluation
  - Developed test procedures generate unique limits table
    - Prevents dynamic test variable entry which could exceed product maximum allowable working design parameters
  - Program defined product tests - variable ramping rates, standard waveforms and user defined complex waveform
  - Product report generation – optional selectable test data acquisition
    - Reports can be exported to Excel or Word file

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TAHEF PRODUCTS

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Towed Array Handling Equipment Facility

Submarine Handling System Unit Overhauls

OK-542 Capstan Unit

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Towed Array Handling Equipment Facility

Submarine Handling System Unit Overhauls

OK-542 Capstan Unit

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Towed Array Handling Equipment Facility

Submarine Handling System Unit Overhauls

OK-542 Stowage Drum/Levelwind Unit

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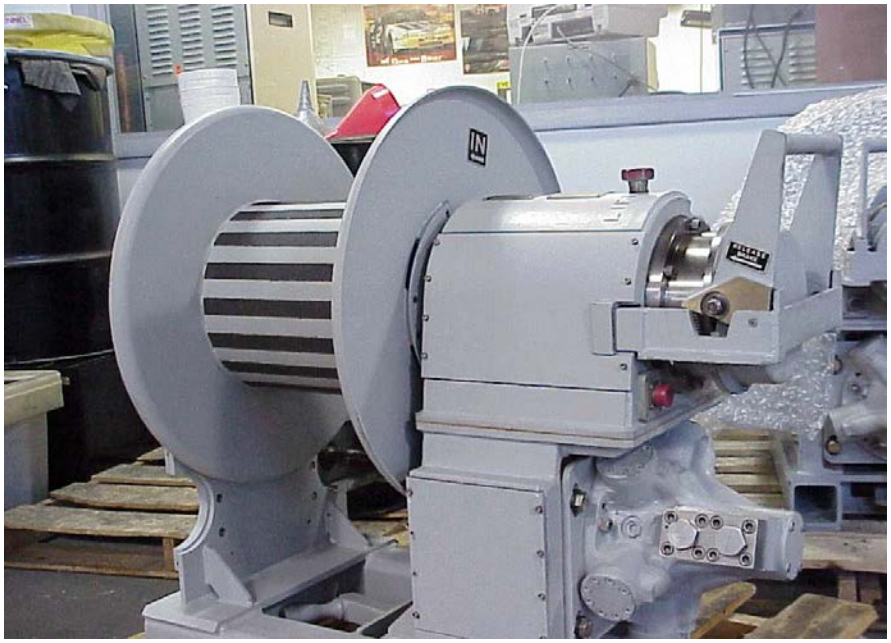
Towed Array Handling Equipment Facility

Submarine Handling System Unit Overhauls

OK-276 Cable Drive Units

OK-276 Cable Stowage Reel/Levelwind Units



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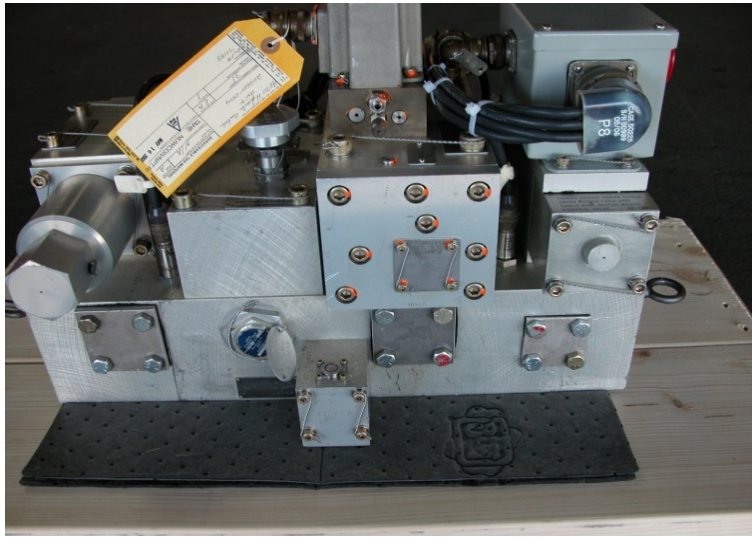
Towed Array Handling Equipment Facility

Submarine Handling System Unit Overhauls

Hydraulic Control Units



Control & Indicator Units

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Surface Ship Handling System Refurbishments

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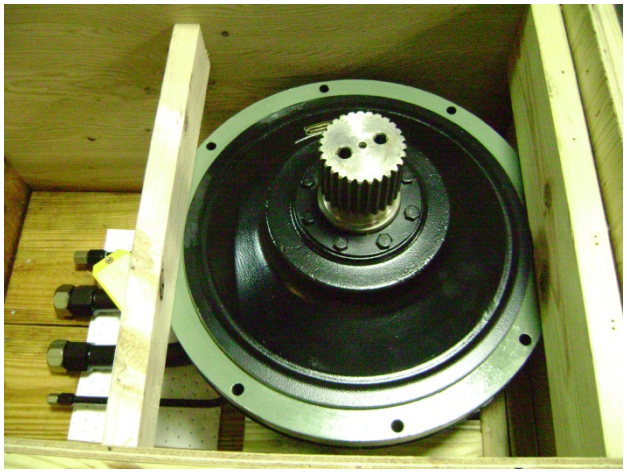
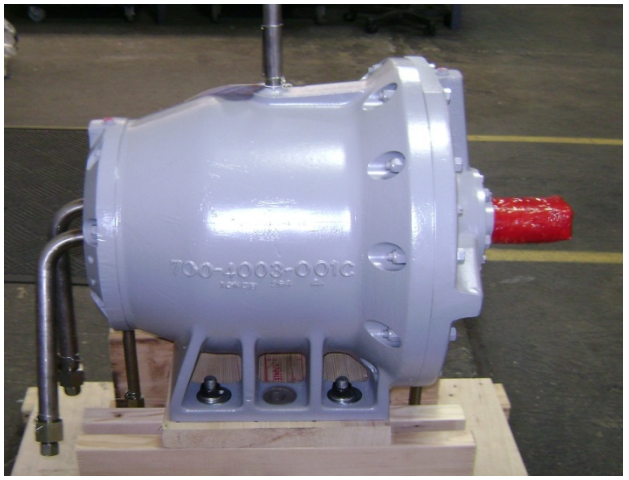
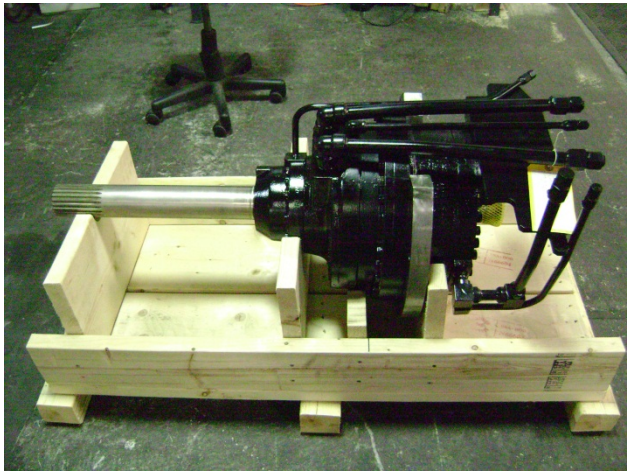
Towed Array Handling Equipment Facility

Lowest Repairable Unit Overhaul

Hydraulic Motors







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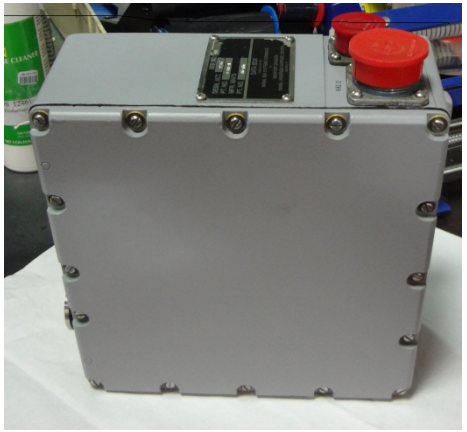
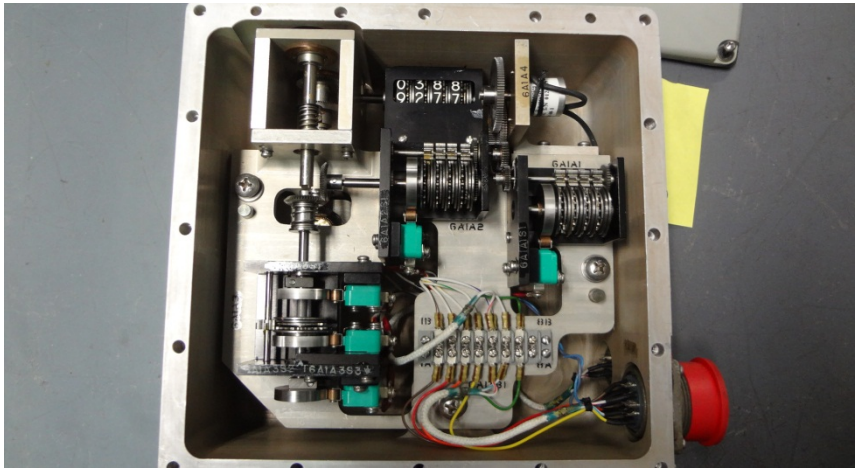
Towed Array Handling Equipment Facility

Lowest Repairable Unit Overhaul

Data Boxes





Hydraulic Locks

Hydraulic Valves

Pinch Rollers

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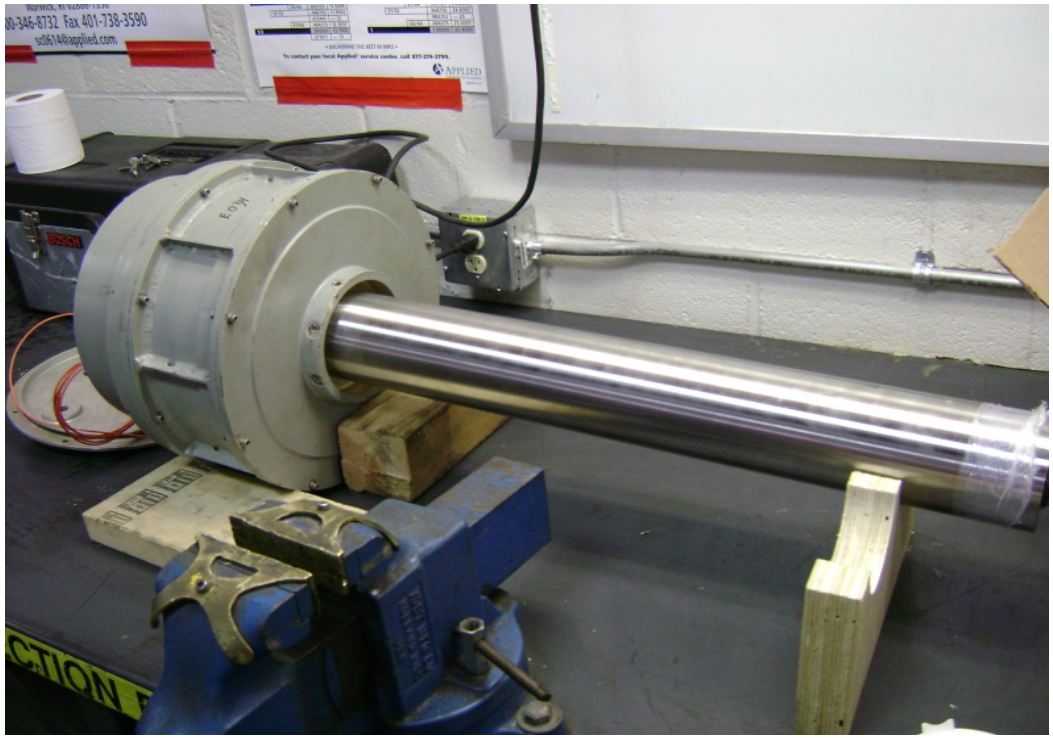
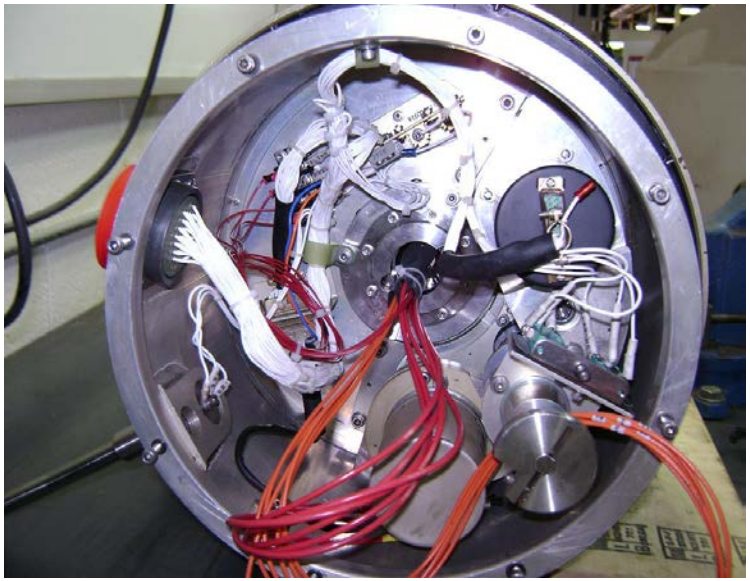
Lowest Repairable Unit Overhaul / Upgrade

Electro-optical Slip Ring Assemblies





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Lowest Repairable Unit Overhaul / Production

Universal Slip Ring Assemblies

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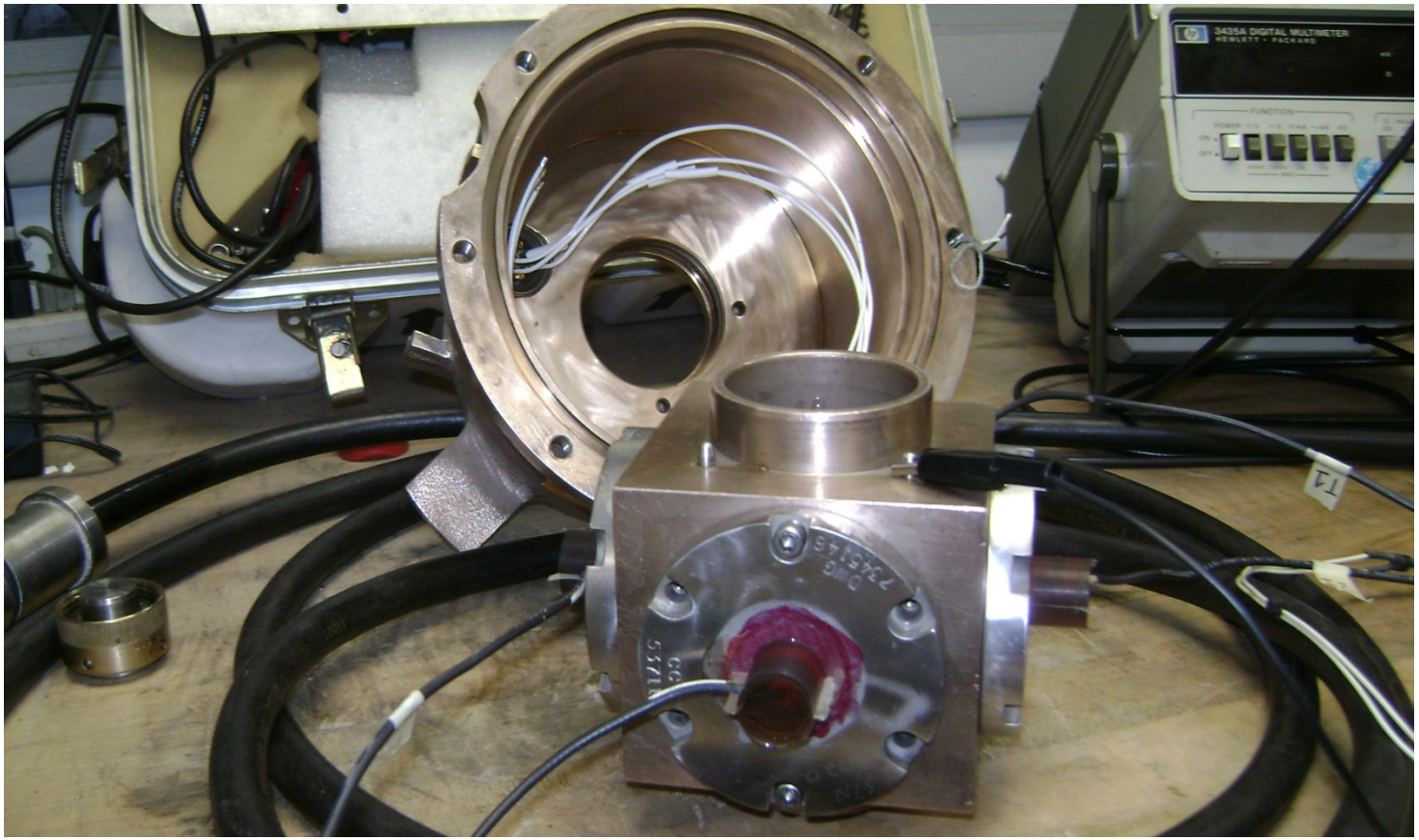
Towed Array Handling Equipment Facility

Lowest Repairable Unit Overhaul / Production

Outboard Sensor Assemblies



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Conclusion/Wrap-up

- **Thank you for your interest in the Code 15 Towed Array Handling Equipment Facility (TAHEF) Operations requirement**
- **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 via SENEDIA, NCMA and AFCEA distribution**
- **“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**

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Facility Tour

- **Unclassified Tour will be provide to groups of 20 people**
- **Tour will be scripted, no questions allowed during tour**
- **Follow-up Questions can be submitted to the SeaPort-e Portal**

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