Overview

• PEO-M Principle For Safety (PFS)
• Test And Evaluation
• Program Management Support
• Advanced Technology
PEO-M Principal For Safety (PFS)

• Lead PEO-M System Safety Certification
  ➢ (Dry Submersibles And SOF Surface Craft)
• Perform Engineering And Risk Assessments During Design And Build
• Perform Hazard Risk Analyses During Testing
• Manage Hazard Reports And Hazard Mitigation During Testing
• PEO-M System Safety Working Group
• Coordinate System Safety With NAVSEA SOF Maritime PMs
  ➢ (Wet Submersibles, Diving, DDS)
Test and Evaluation

• Synchronize T&E Efforts Across The PEO-M Platform Portfolio And Technology Insertions
• Leverage Testing For Cross-platform Systems

• T&E IPT
  - PEO-M CHENG
  - PM Undersea
  - PM Surface
  - PEO-M Test
Program Management Support

- Support Program Management With SORDAC Portal
- Imagery Rich, Structured, Web-based Alternatives To Documentation As-usual
- Leverage Similar Program Docs And Sops
- Menu-driven Programmatic Docs
- More Point-click, Less Cut-paste
Advanced Technology

- Management
  - Scheduling
  - Requirements Tracking
  - RFP Preparation

- S&T / R&D Initiatives
  - FCT
  - JCTD
  - CWP

- Partner With Multiple Agencies And Coalition

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UNCLASSIFIED
Advanced Technologies Topics

• PEO-M Goals Addressing Technologies

• Desired Technologies For SOF Maritime Mobility Beyond The FYDP (Navy After Next)

• How To Get Your Technology Or Capability Noticed By PEO-M
PEO-Maritime Goals

• Essential (E)
  ➢ Identify Cross Cutting Equipment And Assign Lead Integrator For Undersea And Surface Programs By 2015.
  ➢ Identify And Communicate Maritime Mobility Common Requirements To The S&T Community (SOF/Service/National) On A Yearly Basis.

• Enhancing (H)
  ➢ Increase Participation In Requirements Generation Process.
  ➢ Develop S&T Transition Agreements And Link Them To Program POM Cycles.
SOF Maritime Mobility Perspective

• Current Inventory
  - Surface: NSWRIB, SOCR, CRRC
  - Undersea: SDV, DDS

• POM Inventory
  - Surface: CCA, CCM, CCH
  - Undersea: SWCS, DDS, DCS

• Beyond-POM Enabling Technologies
  - Surface: Low Signature, Shock Redux, Wireless Secure Crew Comms
  - Undersea: Energy Storage, Submarine Transport Capability
SOF Maritime Mobility Perspective

- Current Enabling Technologies
  - Surface: GPS, SATCOM, Reliable Diesels, Waterjets, Stabilized FLIR
  - Undersea: Silver-Zinc Batteries
- POM Technology Advances
  - Surface: Light Weight Diesels, Surface Drives, Low Signature, Stabilized Weapons
  - Undersea: Silver-Zinc Batteries, DDS, Imaging Sonar
- Beyond-POM Enabling Technologies
  - Surface: Signature Redux, Shock Redux, Wireless Secure Crew Comms
  - Undersea: Safe High-capacity Energy Storage, New Submarine Transport Capability
SOF Maritime Priority RDT&E

- Power and Energy (P&E)
- Underwater Communications and Situational Awareness
- Underwater Sensing
- Common Integrated C4ISR
P&E Batteries

• Development Of A Safe, High Energy Battery For A Manned Submersible Application
  ➢ Operation Of Lithium-ion Batteries Housed Such That Hazardous Events Are Prevented, Or If They Occur The Consequences Are Mitigated

• Safe Chemistry Li-ion Battery
P&E Fuel Cells

- Development Of A Fuel Cell Technology Which Will Meet Undersea Power Requirements
- Internal Or External To Vessel
- Safety
- Logistics Infrastructure
Communications And Situational Awareness

- Wired Intercom Weaknesses
  - Trip Hazards
  - Cable Damage Susceptibility
  - Temporary Communications Loss With Special Warfare Combatant Crewmen (SWCC) Station Changes

- The SWCC Requires Wireless Intercom
  - NSA Approved Type-1 Encrypted Full Duplex
  - Provides SWCC Access To Existing Boat Radios
  - No EMI/EMC Issues
EO/IR Sensor

• Develop And Demonstrate A Sensor System (And Associated Electronics) For A Periscope That Will Meet Prescribed Requirements And Enable 360 Degree Coverage

• Design, Develop, Manufacture, Install, Test, Demonstrate And Deliver A 360 Degree Sensor System Engineering Development Model (EDM) Periscope

• EDM Delivery Sep 2013

• TRL 4 - Component And/Or Breadboard Validation In Laboratory Environment
C4ISR

Maritime Systems

A Common, Integrated C4ISR Solution For Maritime Surface Systems

Headsets
Navigation
Propulsion Monitoring
Tactical Display Processors
SIE Interfaces
Threat Warning Systems
Operating Systems
Electronic Warfare
Software Applications
Signature Management
Information Assurance
Mission Planning
Intelligence Broadcast System
Controller Area Network
Mission Planning
Friendly Force Tracking
Controller Area Network
Radios

Strategic Effort To Move From Multiple, Independent, And Platform-Specific C4ISR Projects Into A Common, Extensible, Integrated Solution For Application Across All Platforms.
Reaching PEO-M with Technology

- SORDAC Online
- Primary: SORDAC Technology And Industry Liaison Office (TILO)
  - “Doing Business” Tab
- Maritime Centered TNT In Work For Feb 2014 Timeframe

- Cooperative Research And Development Agreement (CRADA)
- Small Business Innovation Research (SBIR) Program
- Broad Agency Announcement (BAA)
- Foreign Comparative Testing (FCT)
- Joint Concept Technology Demonstrations
Never Say “Never.”