NDIA SMALL BUSINESS CONFERENCE

Mr. Jack Evans
Executive Director,
Program Executive Office for Submarines

8 June 2009
Team Submarine

**Mission:**
Keep America’s Navy #1 in the World by Developing, Acquiring, Modernizing, and Maintaining the World’s Most Capable and Cost-Effective Submarines and Undersea Systems.

**Vision:**
Remain the Leader in the Development and Implementation of Innovative Modernization, Acquisition, and Fleet Support Solutions for the Submarine Community.
Team Submarine Organization Chart

**COMNAVSEA**

- Undersea Warfare Directorate (SEA 07)
  - RDML P. Brady

- Executive Director (SEA 07B)
  - Mr. S. Schulze

- Program Offices
  - Strategic/Attack Submarines
    - PMS 392 - CAPT R. Hartman
  - Advanced Undersea Systems
    - PMS 394 - CAPT G. Dunlap

Submarine Matrix Support Division

- Submarine Training System
  - SEA 07TR – Mr. C. Haines
- Logistics Mgmt Support
  - SEA 07L – Mr. L McGowan
- SUBSAFE/Quality Assurance
  - SEA 07Q - CDR J. Hassett
- H,M&E Engineering Mgmt
  - PMS 392T - Mr. G. Gardner
- Warfare System Engineering
  - SEA 07W – Mr. S. Lose

**COMNAVSEA**

- Commander, Naval Undersea Warfare Center
  - RDML D. Johnson

- Technical Director, NUWC
  - Mr. D. McCormack

**ASN (RD&A)**

- Program Executive Office, Submarines (PEO-SUB)
  - RADM (sel) W. Hilarides

- Executive Director (PEO SUB-B)
  - Mr. J. Evans

- Acquisition Program Offices
  - Special Operating Forces
    - PMS 399 – CAPT D. Duryea
  - VIRGINIA Class
    - PMS 450 – CAPT M. Jabaley
  - International Programs
    - Ms. A. Birney

**COMNAVSEA**

- Undersea Technology (SEA 073)
  - RDML D. Johnson

- SEA 073B – Mr. J. Smith
- SEA 073R – CDR M. Douglass
- SEA 073RB – Vacant

- Technical Director (PEO SUB-TD)
  - Mr. D. Miskimens

**Acquisition Program Offices**

- Submarine Acoustics Sys
  - PMS 401 - CAPT R. Nicklas
- Undersea Weapons
  - PMS 404 - CAPT T. Wears
- Undersea Defensive Warfare Systems
  - PMS 415 – Mr. P. Perry
- Sub Combat and Weapons Control
  - PMS 425 - CAPT B. Vance
- Submarine Sensor Systems
  - PMS 435 – CAPT C. Scofield
- Warfare System Engineering SUB-W – Mr. S. Lose
VIRGINIA Class (PMS 450)
# Ships Under Contract

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<th>Name/Hull</th>
<th>Auth Year</th>
<th>Contract Delivery</th>
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As of 4/23/09
• Awarded 22 December 2008

• 8 ship, 5-year, Multi Year Procurement Fixed Price Incentive Contract

• Delivers on FY12 challenge to reduce ship cost by approximately 20%

• Increases production to 2 VIRGINIAs per year in FY11 (aided by $588M plus-up in FY08), therefore supporting force structure requirements, stabilizing the industry and driving down cost

• Incorporates cost reduction design changes, including redesigned bow

• Continues successful teaming arrangement between GDEB and NGSB

• Properly allocates risk between the parties based on program maturity

• Includes Small Business Subcontracting Incentive Fee

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VIRGINIA Class Submarine
Cost Reduction

3 ELEMENT STRATEGY

- Eight Ship Multi-Year Procurement Contract (Block III)
  - Legislative Proposal submitted along with Presidential Budget

- Construction Performance
  - 84 to 60 months
  - Capital Expenditure Program

- Design for Cost Reduction

$2B (FY05 $) VIRGINIA Class Submarine

$600M FY08-FY13 Program

Navy / Industry Teamwork Critical To Success
• What it is
  – SWFTS is system of systems engineering and management that ensure warfare requirements are appropriately allocated and tested across subsystems

• What it is NOT
  – Acquisition Program

• What it does
  – Separates the platform timeline from the electronics timeline to ensure continued mission capability

• Coordination Planning/Execution—PEOSUB TD-B
**Rapid COTS Insertion (RCI) Business Model**

- **RCI Model:**
  - Sustainment
    - Technology pacing
    - Minimizes obsolescence
  - Capability Insertion
    - Threat pacing
    - New sensors/capabilities intro within existing footprint

- **Two Cycle Model (APB 09)** better aligns modernization with Training/Doctrine products

- **Modernization Rules**
  - Each ship gets every other TI (hardware update every 4 years)
  - Special ship groups (SSGN/SEAWOLF/Guam) will all be kept at same TI level
  - No modernization within five years of decommissioning

*Not All Programs Are On The Same Modernization Cycle*
SWFTS Contracts: Open for Competition

ISIS
FY09 Award

Sonar
FY10 Award

Combat System
FY09 Award
- Tactical Control
- Weapons Control

Torpedoes HW / LW
- FY09 Award
- FY10 Award

Q70
FY011 Transition

SA, HA, STDA, HF, TAs, AI&R, DDCS, TSMS

SWFTS Integration
FY08 Award
Representative System Developments

- Anti-Torpedo Torpedo (ATT)
- Next Generation Thin-line Towed Array & Handler
- Flank Array
- Low-Cost Conformal Array
PEO SUB has a variety of methods for contracting with small businesses

- Small Business Innovative Research (SBIR) Program
- Active participant in the Small Business Technology Transfer Program
- Incentivizes contracts to include small business participation
- Host outreach conferences and programs
- Advocates for small business outside of NAVSEA
- Advertises success stories
• Multiple Small Business Products used In-Service Submarines and VIRGINIA Class Submarines
  – Communications
  – Software
  – Display Console
  – Portable Weapon
  – Launch System
  – Sonar Sensors
  – Simulation
  – System Test Tools
  – Environmentally Friendly Products
  – Composite Materials
PEO SUB’s Focus Areas

- VIRGINIA Class Cost Reduction
- Algorithms for sonar, fire control system, torpedoes, imaging, electronic support measures
- Submarine training technology
- Life cycle cost reduction
- Reliability improvement
- Material improvement
Team Submarine Proposed FY9.3 SBIR Topics

- Multi-Material Structures
- Real-time detection aid for enhancing ship’s self-defense
- Universal Atmospheric Contaminant Scrubber for Submersibles
- Long Life Energy Storage Systems for Shipboard Sensor Applications
- Multi-Sensor Array Synchronization
- Secure Open Architecture Open System Technologies for Tactical Networks
- Sonar Detection / Classification Based on Material Identification
- Improved Safety in Large Format Lithium-Ion Cells and Batteries
- Opportunistic Energy Harvesting
- RF System Cost Reduction
- Submersible Navigation Techniques Available at Periscope and/or Mast Depths
- Band Limited Pulse Encoding and Signal Classification
- Innovative Damping Technologies
- Implosion-Proof SOF Mission Equipment Storage Container
- Synthetic Elements for Moving Line Arrays
- Submarine Surface Abandonment Slide
- Technologies for Reduced Source Level Sonar Systems
- Advanced Hull Sensor Array and Processing Concepts
- Innovative Mast Consolidation Concepts
- High Channel Count Optical Slip Ring
- Feedback Loop Mast Height Control System
- Transport Layer Independent Network Monitoring Capability
- Fiber Optic Cable Position Measurement System
- At-sea Reliability with Predictive Modeling
- Multi-Platform Active Heave Compensation System
- Secure Portable Systems for Tactical Networks
- Fatline Towed Array Straightening System

Topics to be approved by OSD week of 8 June
**Points of Contact**

**Reduction in Total Ownership Cost (RTOC)**

**SBIR Primary Point of Contact**
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**OHIO Class Replacement Program**

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Questions?