



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.

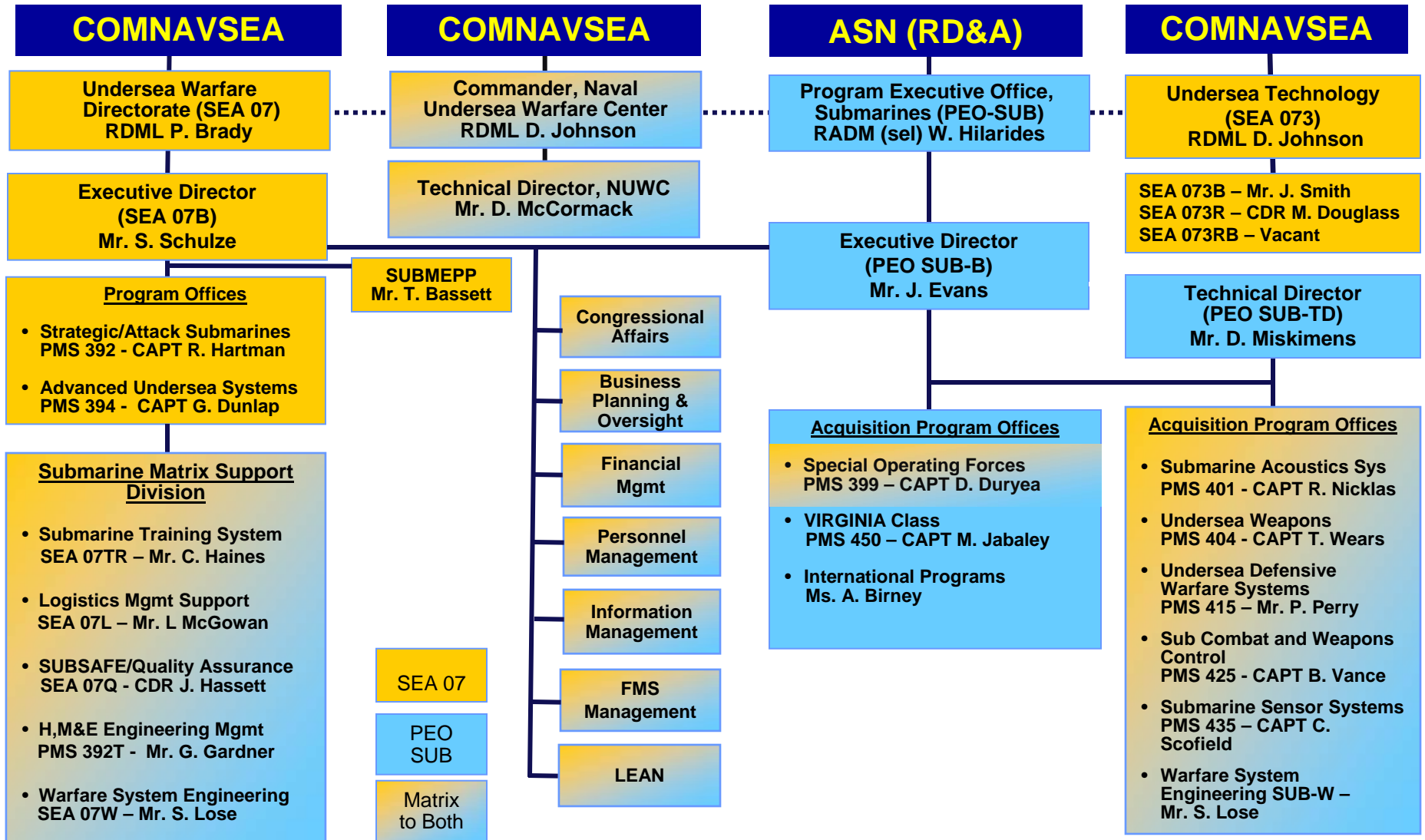
Vision:

Remain the Leader in the Development and Implementation of Innovative Modernization, Acquisition, and Fleet Support Solutions for the Submarine Community.



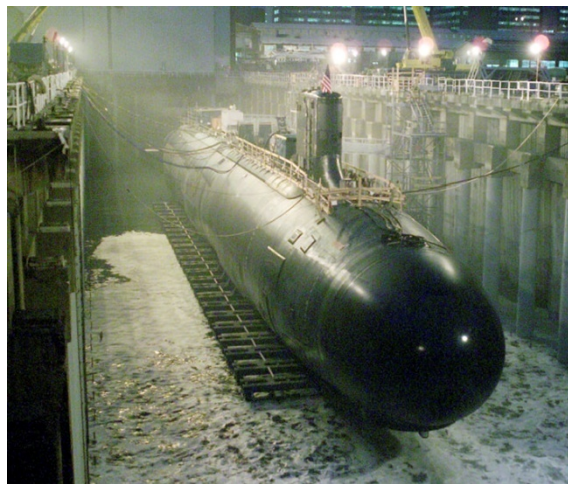
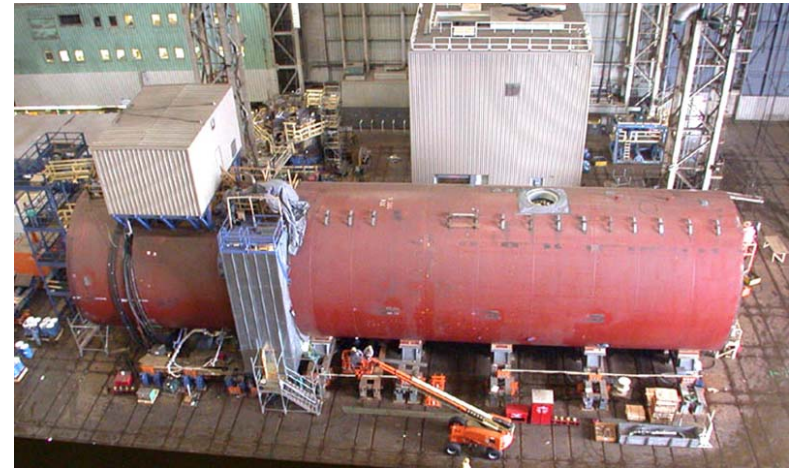


Team Submarine Organization Chart





VIRGINIA Class (PMS 450)





Ships Under Contract

		<i>Name/Hull</i>	<i>Auth Year</i>	<i>Contract Delivery</i>	<i>Actual or Target Delivery</i>
Block I (CPIF)		USS VIRGINIA (SSN 774)	FY98	Jun 04	12 Oct 04
		USS TEXAS (SSN 775)	FY99	Jun 05	20 Jun 06
		USS HAWAII (SSN 776)	FY01	Dec 06	22 Dec 06
		USS NORTH CAROLINA (SSN 777)	FY02	Dec 07	21 Feb 08
Block II (FPIF)		USS NEW HAMPSHIRE (SSN 778)	FY03	Apr 09	27 Aug 08
	MYP Ships	NEW MEXICO (SSN 779)	FY04	Apr 10	Sep 09
		MISSOURI (SSN 780)	FY05	Apr 11	Apr 10
		CALIFORNIA (SSN 781)	FY06	Apr 12	Jun 11
		MISSISSIPPI (SSN 782)	FY07	Apr 13	Feb 12
MINNESOTA (SSN 783)		FY08	Apr 14	Aug 13	
NORTH DAKOTA (SSN 784)		FY09	Aug 14	Aug 14	
JOHN WARNER (SSN 785)		FY10	Aug 15	Jul 15	
SSN 786		FY11	Aug 16	Jul 16	
SSN 787		FY11	Feb 17	Oct 16	
SSN 788		FY12	Aug 17	Feb 17	
SSN 789	FY12	Feb 18	Aug 17		
SSN 790	FY13	Aug 18	Feb 18		
SSN 791	FY13	Feb 19	Aug 18		

As of 4/23/09



VIRGINIA Class Block III Contract

- 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

Block III Ships

FY09	FY10	FY11	FY12	FY13
SSN 784	SSN 785	SSN 786	SSN 788	SSN 790
		SSN 787	SSN 789	SSN 791





VIRGINIA Class Submarine Cost Reduction



\$2B (FY05 \$) VIRGINIA Class Submarine

\$600M FY08-FY13 Program

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

Navy / Industry Teamwork Critical To Success



VIRGINIA Class: Reduction of Total Ownership Costs (RTOC)

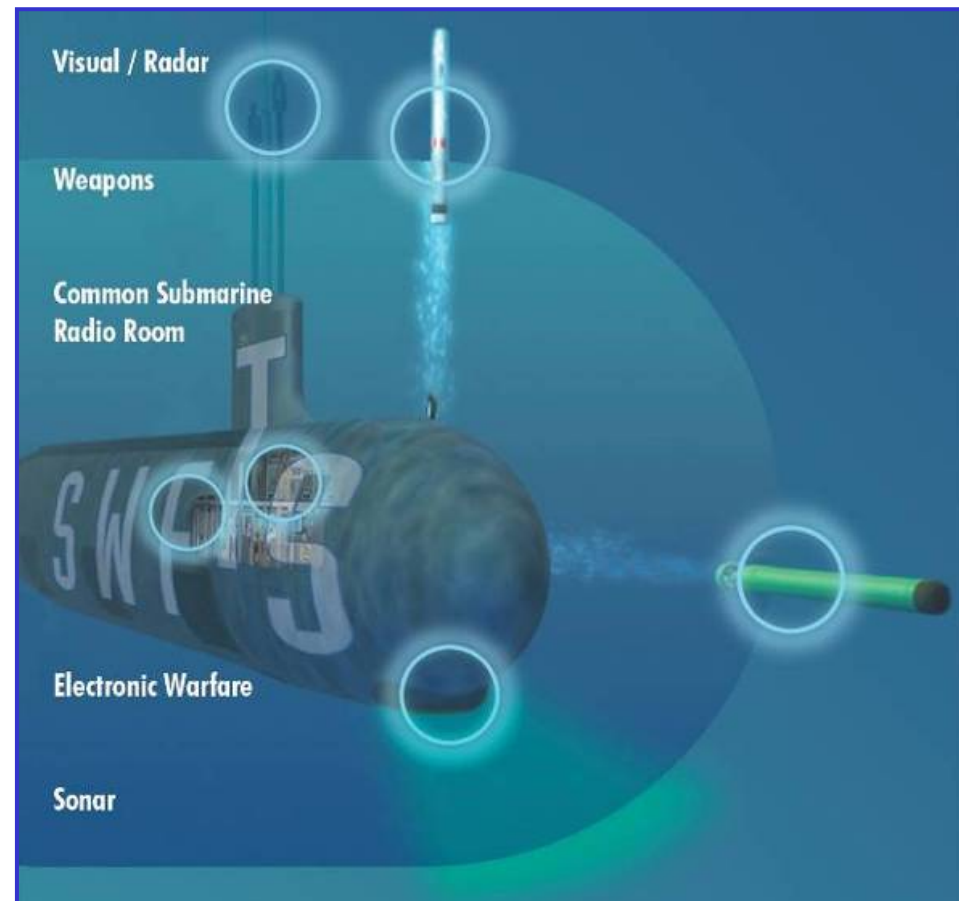


Building from the Successful VIRGINIA Class Cost Reduction Team



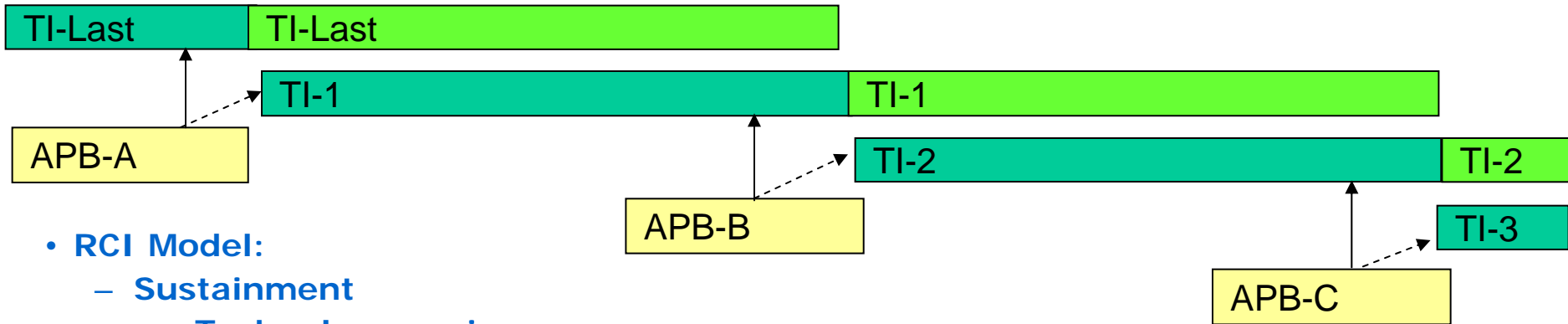
Submarine Warfare Federated Tactical Systems (SWFTS)

- 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**

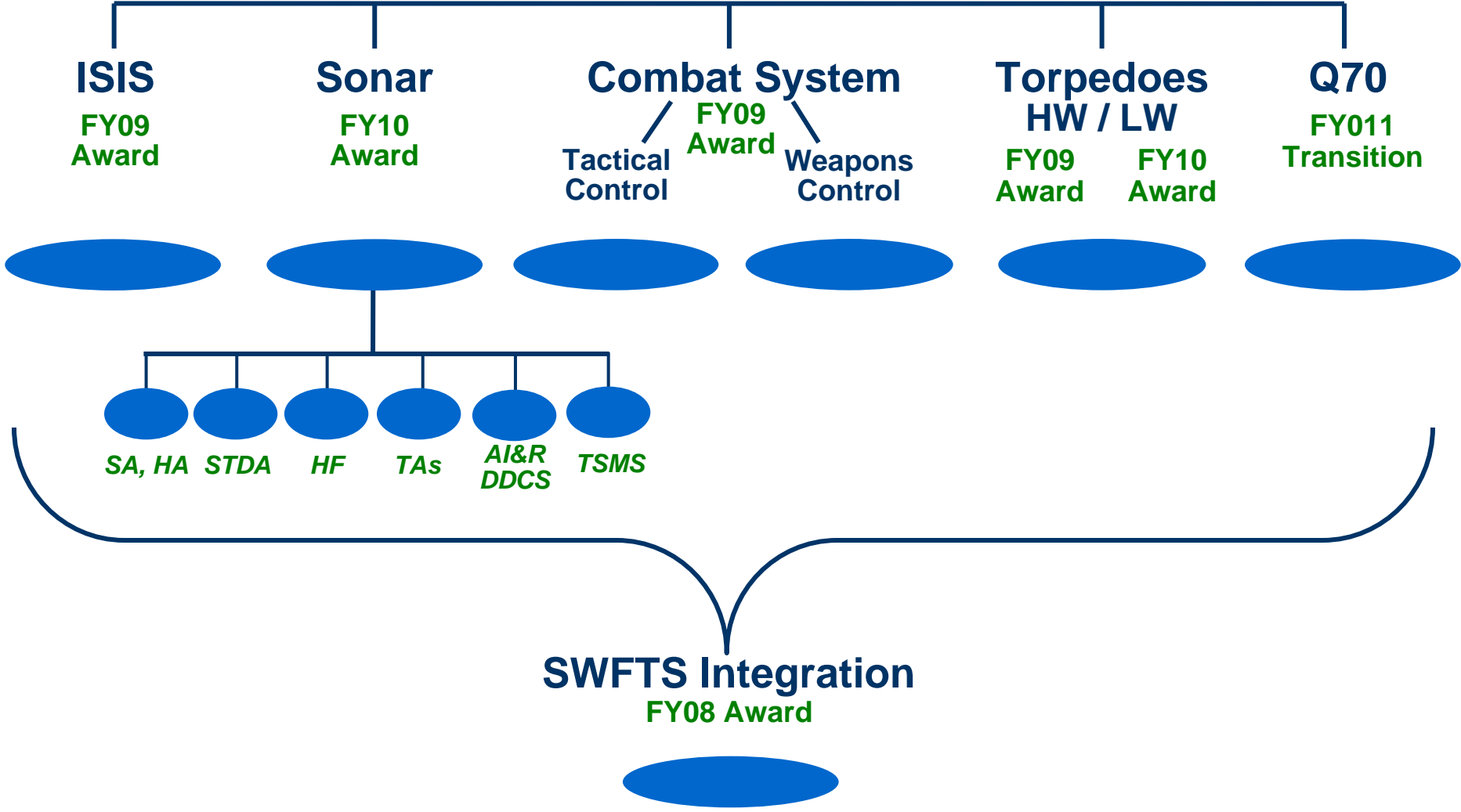
- **Modernization Rules**

- 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





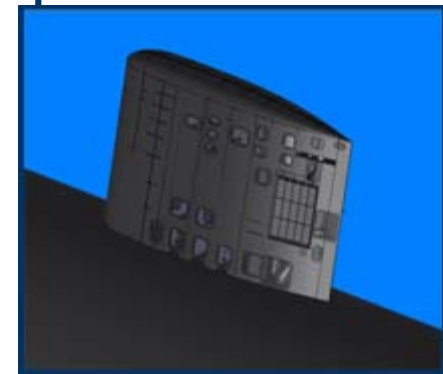
Representative System Developments

Anti-Torpedo Torpedo (ATT)



*Next Generation
Thin-line Towed Array
& Handler*

*Flank
Array*



Low-Cost Conformal Array



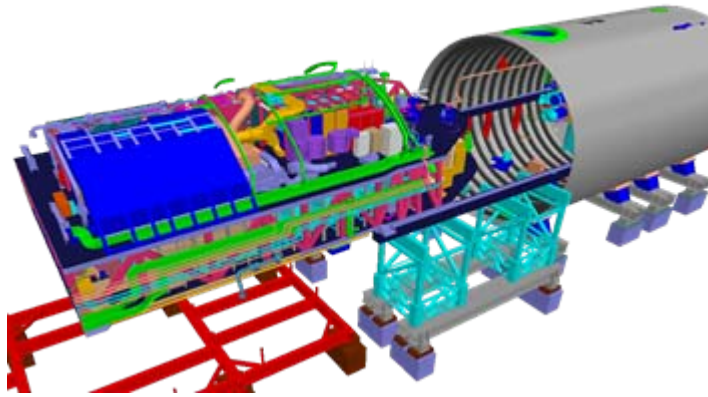
PEO SUB and Small Business

- **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**

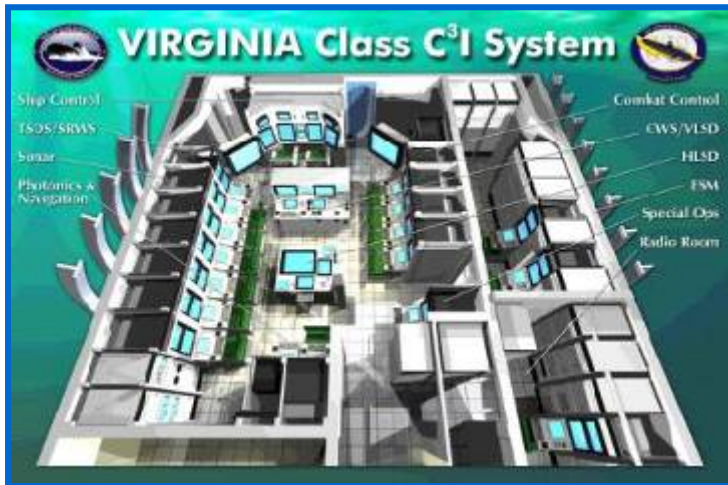
*PEO SUB Supports Small Business
With A Multifaceted Approach*



Small Business: Real Value to PEO SUB



- **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





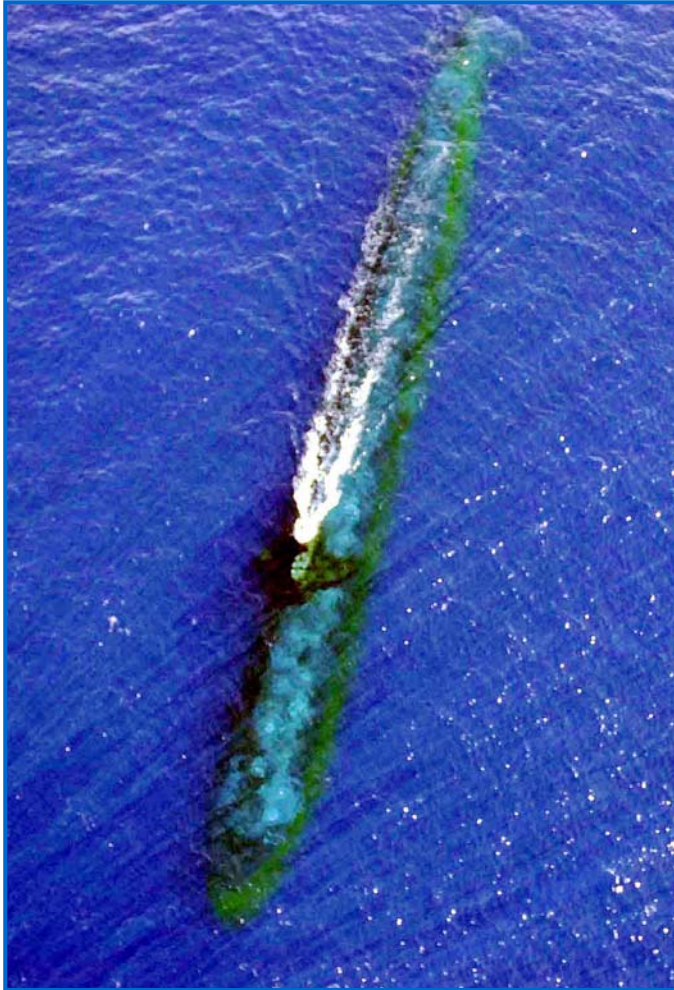
PEO SUB's Focus Areas



- **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



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

- 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



Points of Contact

Reduction in Total Ownership Cost (RTOC)

SBIR Primary Point of Contact

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Questions?

