



Submarine Industrial Base Council Supplier Day



1 March 2016
CAPT Michael Stevens, USN – Program Manager, PMS450





Major Points



- **Twelve Ships Delivered to Date**
 - Full-rate production at two per-year at two shipyards
 - Build span shortened by two years – eight straight deliveries ahead of schedule
- **Ship Construction Performance**
 - PCU ILLINOIS (SSN 786) and PCU WASHINGTON (SSN 787) to deliver this year (first two per year)
 - Eight more ships under construction - all projected to deliver early to contract
- **VIRGINIA Payload Module (VPM) – Increases Tomahawk strike capability**
 - Construction to start with the FY19-2 ship
 - SCN funding commences in FY17 (two year AP and detailed design)
 - Payload tube prototyping and design efforts on track to support VPM construction in FY19
- **Acoustic Superiority (AS) – Undersea Dominance Mandate**
 - Detailed Design of Large Vertical Array & Coatings planned for completion in FY17
 - PCU SOUTH DAKOTA (SSN 790) will be outfitted and tested during FY18/19 PSA
 - PB17 funded AS on all Block V VIRGINIA Class Submarines
- **Block V – Planned award Oct 2018**
 - Up to ten ships – Multi-Year Procurement (MYP) contract with Economic Order Quantity (EOQ)
 - PB17 includes two year AP for first Block V ships
 - Acquisition Program Baseline (APB) update - extends class to 48 ships with VPM and AS



Description



Mission:

Develop and deploy a more affordable, nuclear-powered attack submarine with multi-mission capability and enhanced capabilities for performance in littoral areas. VIRGINIA Class submarines support five of the six Navy core maritime capabilities:



Forward Presence



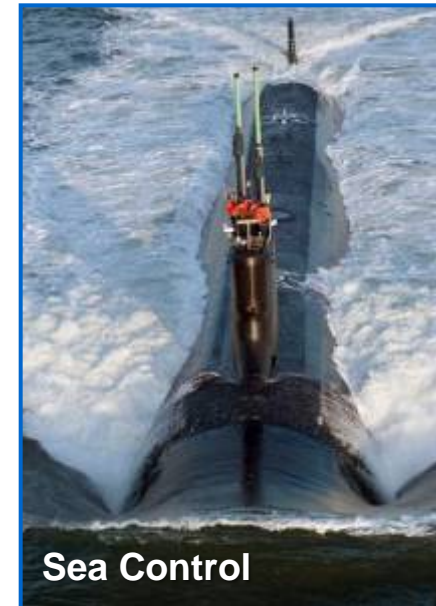
Power Projection



Deterrence



Maritime Security



Sea Control

Maritime Strategy at a Glance:

“A Cooperative Strategy for 21st Century Sea power” recognizes the economic links of the global system and how any disruption due to regional crises – man-made or natural – can adversely impact the U.S. economy and quality of life. This strategy charts a course for the Navy, Coast Guard, and Marine Corps to work collectively with each other and international partners to prevent these crises from occurring or reacting quickly should one occur to avoid negative impacts to the U.S.

Mission Areas:

- Anti-Submarine Warfare (ASW)
- Anti-Surface Ship Warfare (ASUW)
- Strike Warfare (STK)
- Mine Warfare (MIW)
- Intelligence Surveillance and Reconnaissance (ISR), Intelligence and Warning (I&W) and Electronic Warfare (EW)
- Special Warfare (SW)
- Battlegroup Operations (BGO)



Ships Delivered or Under Contract



20% Design Change

		Ship Name / Hull Number	Auth. Year	Home-port	Current ARCI	Contract Del. Date	Contract Delivery Months	Actual or Target Del.	Contract Delivery						
									MONTHS EARLY			MONTHS LATE			
									12	8	4	4	8	12	
Block I (CPIF)		USS VIRGINIA (SSN 774)	FY98	Groton	TI-02	Jun 04	84	12 Oct 04							
		USS TEXAS (SSN 775)	FY99	PH	TI-10	Jun 05	84	20 Jun 06							
		USS HAWAII (SSN 776)	FY01	PH	TI-12	Dec 06	84	22 Dec 06							
		USS NORTH CAROLINA (SSN 777)	FY02	PH	TI-08	Dec 07	84	22 Feb 08							
Block II (FPIF)	MYP Ships	USS NEW HAMPSHIRE (SSN 778)	FY03	Groton	TI-02	Apr 09	78	27 Aug 08							
		USS NEW MEXICO (SSN 779)	FY04	Groton	TI-08	Apr 10	74	29 Dec 09							
		USS MISSOURI (SSN 780)	FY05	Groton	TI-10	Apr 11	74	29 Jul 10							
		USS CALIFORNIA (SSN 781)	FY06	Groton	TI-10	Apr 12	74	7 Aug 11							
		USS MISSISSIPPI (SSN 782)	FY07	PH	TI-12	Apr 13	74	2 May 12							
		USS MINNESOTA (SSN 783)	FY08	Groton	TI-12	Apr 14	74	6 Jun 13							
Block III (FPIF)	MYP Ships	USS NORTH DAKOTA (SSN 784)	FY09	Groton	TI-10	Aug 14	66	Aug 14							
		USS JOHN WARNER (SSN 785)	FY10	Norfolk	TI-10	Aug 15	66	Jun 15							
		ILLINOIS (SSN 786)	FY11	TBD	TI-10	Aug 16	66	May 16							
		WASHINGTON (SSN 787)	FY11	TBD	TI-10	Feb 17	66	Sep 16							
		COLORADO (SSN 788)	FY12	TBD	TI-14	Aug 17	66	Mar 17							
		INDIANA (SSN 789)	FY12	TBD	TI-14	Feb 18	66	Aug 17							
		SOUTH DAKOTA (SSN 790)	FY13	TBD	TI-14	Aug 18	66	Feb 18							
		DELAWARE (SSN 791)	FY13	TBD	TI-14	Feb 19	66	Sep 18							
Block IV (FPIF)	MYP Ships	VERMONT (SSN 792)	FY14	TBD	TI-14	Jun 19	62								
		OREGON (SSN 793)	FY14	TBD	TI-14	Nov 19	62								
		MONTANA (SSN 794)	FY15	TBD	TI-16	May 20	62								
		HYMAN G. RICKOVER (SSN 795)	FY15	TBD	TI-16	Sep 20	60								
		NEW JERSEY (SSN 796)	FY16	TBD	TI-16	Feb 21	60								
		IOWA (SSN 797)	FY16	TBD	TI-16	Aug 21	60								
		MASSACHUSETTS (SSN 798)	FY17	TBD	TBD	Feb 22	60								
		IDAHO (SSN 799)	FY17	TBD	TBD	Aug 22	60								
		UNNAMED (SSN 800)	FY18	TBD	TBD	Feb 23	60								
UTAH (SSN 801)	FY18	TBD	TBD	Aug 23	60										

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VIRGINIA-Class

The Right Submarine for Today with Flexibility for the Future

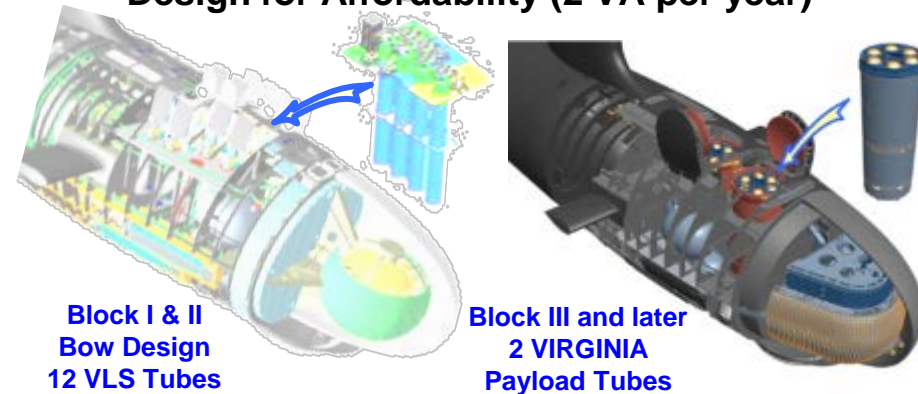


Increase in platform capability



10 Ships Delivered

Design for Affordability (2 VA per year)



8 Ships – 2 Delivered, 6 Under Construction

Block IV (FY14–18) – SSNs 792 – 801
RTOC enables increased A_0 per hull



10 Ships – 4 Under Construction, 6 Under Contract

Block V and later VPM – SSNs 802 and later
Increases undersea influence effects



In Design Phase, FY19 Construction Start



Block V Overview



- **Planned award in early FY 2019**
 - Up to 10 ships, FY19 – FY23
 - Fixed Price Incentive contract
 - 2 year AP starts in FY17
 - Build on success of Block IV negotiations and leverage OR Program
- **Incorporation of VPM to increase undersea strike capacity and AS to pace the threat into baseline VA**
- **MYP Leg. Proposal and Exhibits will be included in PB18 submission**
- **Will take advantage of MYP with EOQ procurement (CFE & GFE)**
- **Adequate subcontractor proposals necessary to streamline contracting timeline and improve responsiveness amongst all parties**

Block V - PB17 Build Profile

FY19	FY20	FY21	FY22	FY23
2	2	1	2	2

CONTRACT TIMELINE	
PB18	Request for MYP approval
March 2016	APB extended from 30 to 48 hulls with VPM and AS
Feb 2017	Submit MYP Legislative Proposal and Exhibits with PB-18
Feb 2017	Navy Gate 5 / 6 Review
Mar 2017	OSD Certification Memo signed
Mar 2017	RFP release
Jun 2017	Material Proposal received
Sep 2017	Labor Proposal received
Oct 2017	Receive FY18 Authorization Language for MYP with EOQ
Jun 2017 – Apr 2018	Proposal Evaluation
Apr – Jul 2018	Contract Negotiations
Sep 2018	Peer Review
Early FY2019	Contract award

Advance Procurement and Economic Order Quantity Funding Critical to Successfully Maintaining Two-Per Year Delivery Cadence

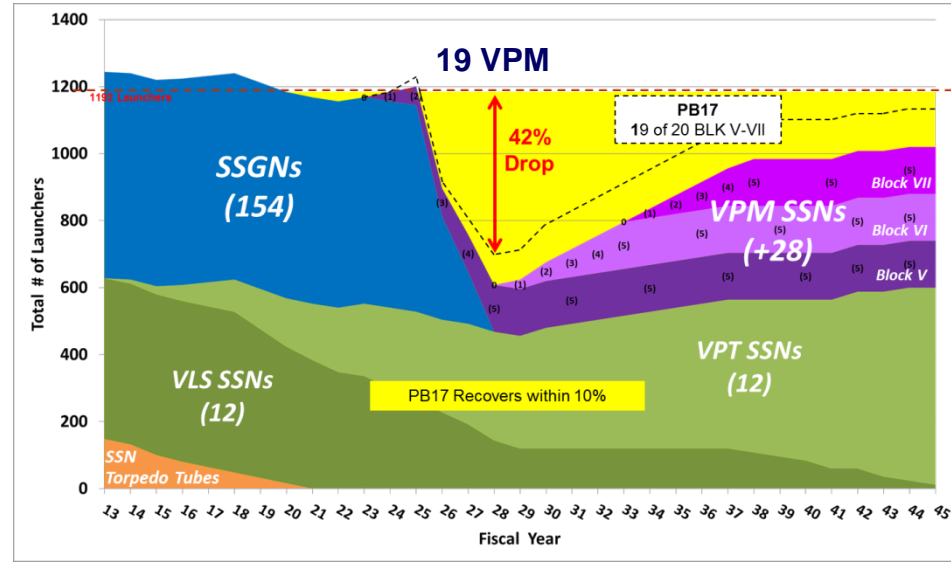
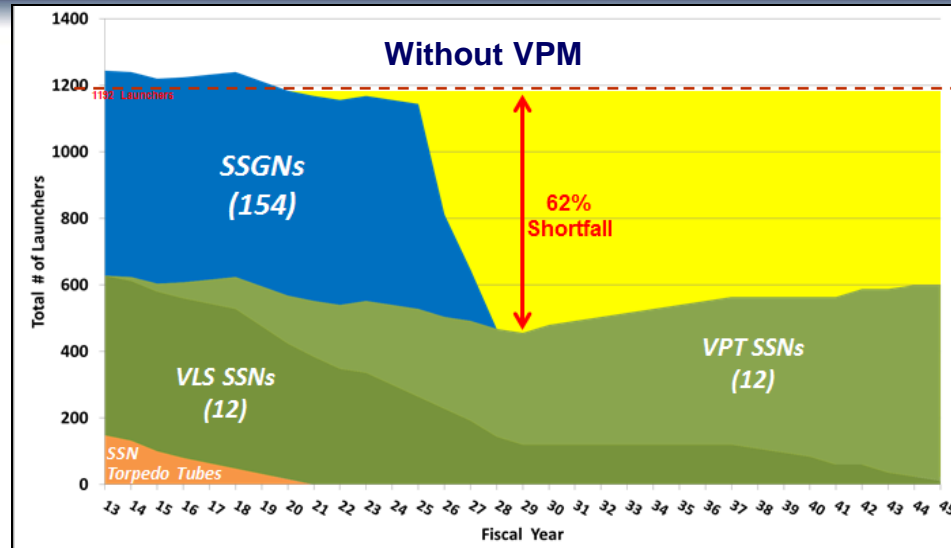


Block V: VIRGINIA Payload Module (VPM)



VPM Requirements

- VIRGINIA Class Capability Development Document (CDD)**
 - Adds Key Performance Parameters for strike capacity, cost, and schedule
- Strike capacity – increase strike capacity from 12 to 40**
 - Design does not preclude future capability to host other missile systems in other combinations within a different MAC interface configuration
- Schedule – Initial Operating Capability (IOC)**
 - Threshold – No later than 2nd Quarter FY28
 - Objective – No later than 4th Quarter FY26
- CDD Approval**
 - Joint Requirement Oversight Council (JROC) approval received 17 December 2013



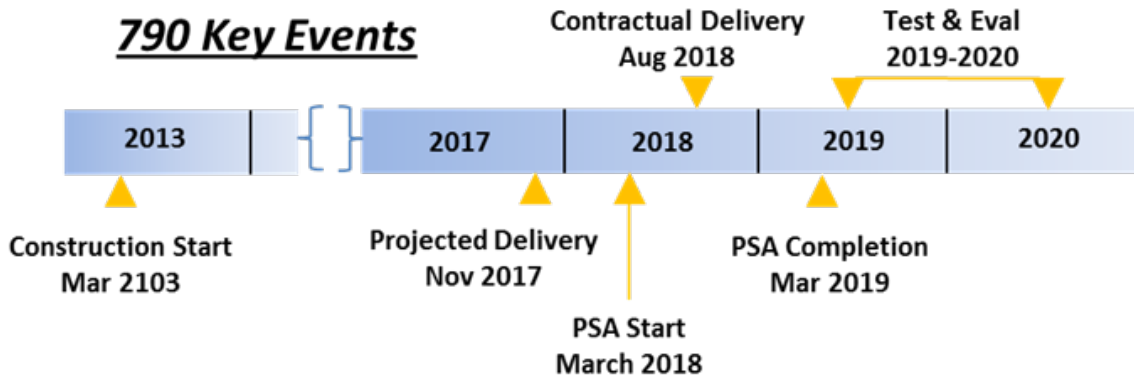
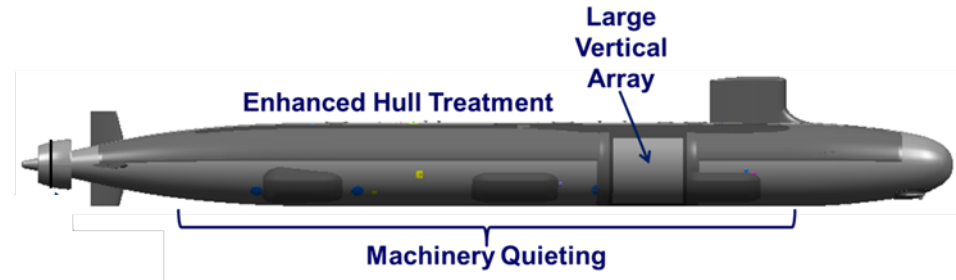
Provides Greater Than Three Times the Firepower at Less Than a 15% Increase in Cost Per SSN



Acoustic Superiority (AS)



- CNO's undersea dominance mandate to pace the future threat
 - Projected to maintain undersea dominance through mid-century
 - First significant investments in VIRGINIA arrays or coatings since initial design
- Incorporates design changes in three areas
 - Large Vertical Array (LVA)
 - Enhanced hull treatment
 - Selected machinery improvements internal to hull
- Proved out on PCU SOUTH DAKOTA (SSN 790) via SOUTH DAKOTA Insertion Program (SDIP)
 - One year Post Shakedown Availability (PSA) in 2018
 - Demonstration at sea in 2019
- Forward fit – Block V and later hulls
- Back fit – Selected changes on VCS
- Schedule (SDIP)



A photograph of a submarine's conning tower and sail above the ocean surface. The submarine is dark grey and has several antennas and sensors on top. The ocean is dark blue with white-capped waves. In the foreground, two dolphins are leaping from the water, creating a splash. The word "Questions?" is written in large white text in the upper right quadrant of the image.

Questions?