Submarine Unified Build Strategy (SUBS)

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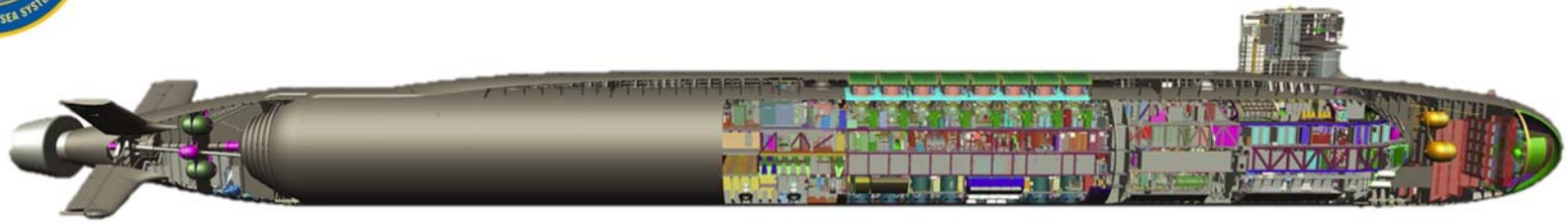
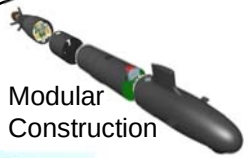
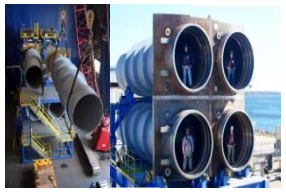
A Holistic Plan to Deliver SBSD:

"Aligned Execution of Multiple Discrete Elements"





Modular Construction

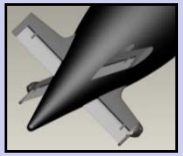


Integrated Tube / Hull Construction

SSBN Design

Propulsor

Electric Drive



Coordinated Stern

Survivability, Essential Stealth, and Force Protection

Updateable Electronics Systems

Extended Service Life

Life of Ship Reactor Core

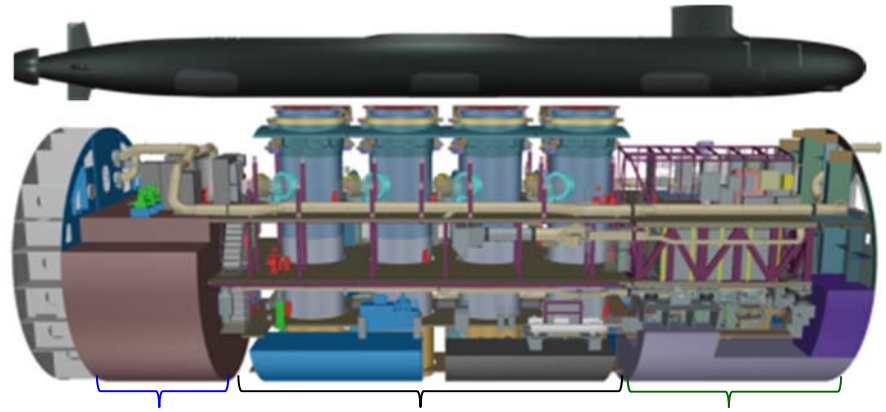
Improved Availability

Strategic Weapons System (D5LE)

US – UK Common Missile Compartment

Ship, Propulsion Plant, and SWS Development are Synchronized to Deliver SBSD in 2031
No Margin for Delay

VIRGINIA Payload Module (VPM)



Ship Characteristic	VA Blk III (SSN784)	VA Blk V / VPM
Length Overall (ft)	377.3	462.5
Submerged Displacement (LT)	7,833	10,177
Reserve Buoyancy (%)	11.9	11.5
Variable Ballast (LT)	268	350
Mean Draft (ft)	28.4	28.6
Navigational Draft (ft)	31.8	30.8
Margin (LT)	310	485

Design Yard 2015 Achievements

- Manning has grown from 80 to 440 people, on track to achieve peak manning of 650 in CY16
- All 39 technical key decisions relative to setting ship length have been submitted to NAVSEA for approval ahead of schedule
- Ship specifications on track to complete this year
- Performance baseline will be set to manage cost KPP's

Submarine Unified Build Strategy (SUBS)

- **Goal: To achieve the best value for the Navy in delivering quality, affordable OHIO Replacement (OR) and VIRGINIA Class submarines (VCS), along with CVN common material, on time, to specifications, in the necessary quantities, with acceptable risk.**

- **SUBS**: A strategy coordinating OR, VCS and CVN programs:
  - Prioritize OR program execution – OR and SUCCESSOR must deliver on time
  - Prioritize SSN force structure – VCS must deliver on time
  - Ensure executability and enable affordability during the planned ramp-up in submarine production
  - Sustain VCS cost and schedule performance, while retaining flexibility for capability enhancement
  - Retain two shipyards and the supplier base capable of delivering nuclear-powered submarines
  - Meet decision timing necessary to support RFPs for OR and VCS
  - Leverage cross program material procurement opportunity across OR, VCS and CVN

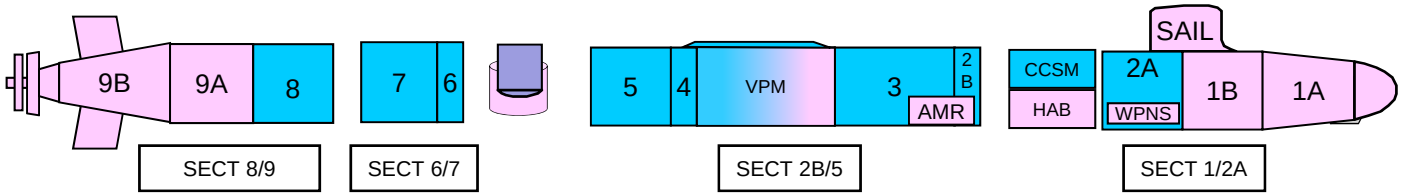
Enterprise Work-split

- **Smartly distributes work across the shipbuilders**
- **OR: General Dynamics Electric Boat (GDEB) prime, Huntington Ingalls – Newport News Shipbuilding (HII-NNS) subcontracted**
  - GDEB delivers all ORs
  - OR workload share: approximately 80% GDEB and 20% HII-NNS- maximizes transfer of VCS shipbuilding experience
- **VCS: GDEB and HII-NNS teaming arrangement continues**
  - Majority of VCS will deliver at HII-NNS during OR construction
  - Negotiate details at each Block contract
  - VCS Final Assembly and Testing (FATs) remains largest opportunity to appropriately balance workload across VCS and OR

Minimizes OR Schedule Risk, Lower Total VCS And OR Program Cost

Construction Assignments

VIRGINIA (with VPM) 4 Module Build Plan



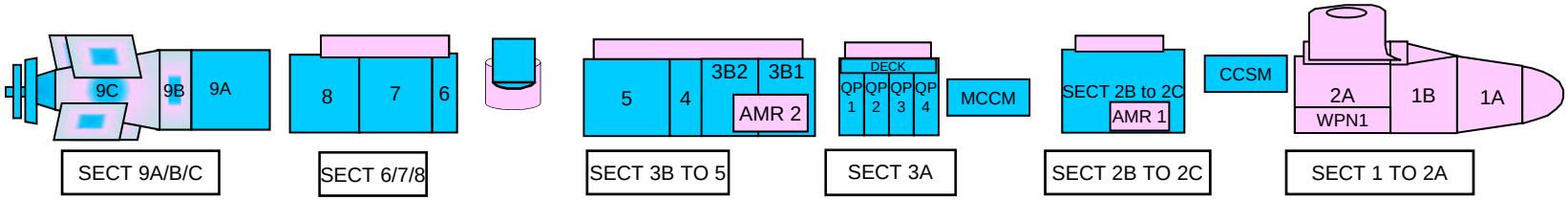
EB

NNS

Delivery Yard

EB/NNS

OHIO Replacement 6 Module Build



EB

NNS

EB/NNS

Leverages Prior Investment In VCS Module Expertise And Learning

Next Steps

- **Refine and prioritize details for program implementation**
  - Capitalize on existing shipbuilding experience with VCS for insights on the application of Advanced Procurement (AP)/Advance Construction (AC) and the reduction of schedule risk for OR
  - Identify specific OR and cross-program component targets for AP, AC and Continuous Production (CP)
  - Identify key pivot points for alignment of funding and contracts
  - Develop cost benefit estimates for different VCS/OR Block alignment options

- **Refine strategy details to reflect insights and support near-term milestones**
  - OR Milestone B in August 2016
  - VCS Block V RFP in March 2017