Importance of Submarines and the Submarine Industrial Base

U.S. Navy Submarines

Major classifications of modern U.S. submarines:

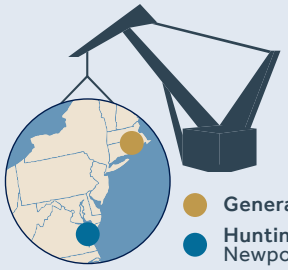
SSN — Nuclear powered attack submarine

SSGN — Nuclear powered guided missile submarine

SSBN — Nuclear powered ballistic missile submarine

SSN and **SSGN** submarines give the Navy unparalleled stealth and strike capability to support Special Operations Forces and carry out intelligence, surveillance and reconnaissance missions. **The Los Angeles Class**, **Seawolf Class**, and **Virginia Class** submarines represent the SSN force currently deployed by the American Navy, utilizing the most advanced undersea systems that American world-class science, engineering, technology, and manufacturing can provide.

The current U.S. SSBN force consists of 14 **Ohio Class** submarines. Ohio Class SSBNs are specifically designed for extended deterrent patrols. Trident II D5 missiles with improved accuracy and range, efficient crew rotations, and low maintenance demands maximize the SSBN's strategic availability as well as reduce the number of submarines required to meet strategic requirements and readiness.



2 SHIP YARDS

- **General Dynamics**—Electric Boat
- **Huntington Ingalls Industries**—Newport News Shipbuilding

22,500 PEOPLE

OVER 5,000 SUPPLIERS NATIONWIDE

$18.7 BILLION to local economies across all 50 States over the past 5 years

> **Undersea dominance** is one of the areas of clear military superiority by the United States. We want it to stay that way forever. So we're building on that. We're investing in that both in terms of your submarines and in the qualitative improvements, which are substantial...**[The Columbia Class is a] huge, centrally important, obviously indispensable part** of our national defense because the nuclear deterrent is the bedrock.

U.S. Secretary of Defense Ash Carter (2015–2017)

Strategic Value and Nuclear Deterrent

An effective nuclear deterrent to prevent attacks on the U.S. from countries armed with nuclear and other weapons of mass destruction is a national security imperative.

SSBNs are the most secure and survivable strategic component of the United States' nuclear triad—comprised of **submarine-based ballistic missiles, land-based ICBMs, and heavy bombers.** Deep in the ocean, with virtually unlimited endurance, these submarines are **capable of reaching any target** at the direction of the President.

SSBNs carry over **50%** OF THE U.S. OPERATIONAL NUCLEAR DETERRENT ARSENAL, soon to be **70%** using only **1%** of the OVERALL DEFENSE DEPARTMENT BUDGET

Future of Submarines and Importance of Investment

Our fundamental priority is to design and build the next generation of US submarines while continuing to maintain and modernize the nation's submarine fleet. The submarine industrial base is committed to meeting the Navy's aggressive schedule and cost reduction goals, supporting three major lines of effort:

Columbia Class Ballistic Missile Submarine Program

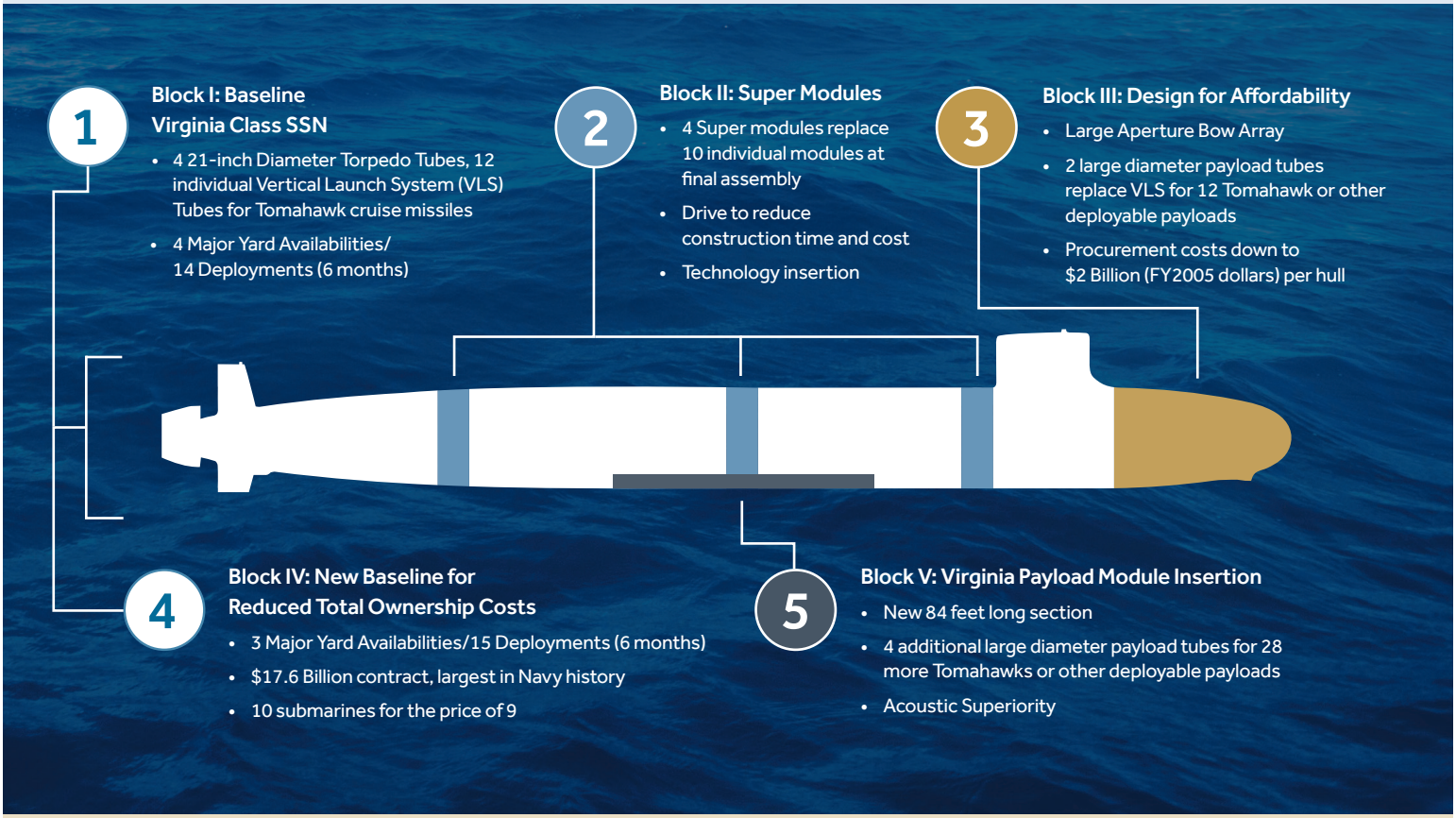
The time to replace the 14 Ohio Class submarines is now. SSBNs are an every other generation investment to recapitalize the SSBN force. Due to expert engineering and maintenance the Ohio Class SSBNs have already been extended to serve for 42 years, though originally designed for only 30 years of service. The time to build replacements is now. 12 newly designed Columbia Class SSBNs will efficiently maintain the U.S. Navy's nuclear deterrent force into the 2080's, providing a credible strategic nuclear deterrent at the lowest possible cost.

Continued construction of multiple Virginia Class Submarines per year/Virginia Payload Module development

Sustained procurement of multiple Virginia Class submarines per year is essential for the Navy to maintain undersea dominance. Future Virginia Class submarines will be equipped with the Virginia Payload Module (VPM) containing 4 large diameter payload tubes for increased SSN undersea strike capacity and the ability to host a variety of other innovative payloads. When the last Ohio Class SSGN retires in 2028, the U.S. will lose 60 percent of its undersea strike capacity. Adding VPMs to future Virginia Class submarines will mitigate this drop and improve payload distribution across the force at a much lower cost than building replacement SSGNs.

Submarine Force Maintenance and Modernization

This crucial work maintains the nation's submarine fleet, industrial base proficiency, and critical job skillsets. Continuous maintenance and modernization work sustains the stability and core competencies required to ensure a proficient workforce exists when the Virginia Class SSN with VPM and Columbia Class SSBN full rate production plans are executed.



About the SIBC

Established in 1992, the Submarine Industrial Base Council seeks to educate policymakers and the public about the need to preserve the strength of the U.S. submarine force and promote the value of the submarine industrial base as a vital part of our national security. SIBC membership is open to the more than 5,000 U.S. companies that provide critical materials to the U.S. submarine programs under development or in production. Member businesses range from the smallest specialty shops to manufacturers of main propulsion equipment.