

Importance of Submarines and the Submarine Industrial Base

U.S. Navy Submarines

Major classifications of modern U.S. submarines:



Nuclear powered attack submarine

Nuclear powered guided missile submarine

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 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.





-CURRENTLY - 2,812 FIRST TIER SUPPLIERS

to local economies across almost all 50 states over the past 5 years

Shipbuilding industrial base expansion for resilience and robustness, and maritime workforce training pipelines in support of Virginia Class attack submarine production are... essential to the national defense.

President Joe Biden, 21 DEC 2021

Strategic Value and Nuclear Deterrent

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

SSBNs are the most survivable component of the United States' nuclear triad—comprised of submarine-launched 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.



SUBMARINE INDUSTRIAL BASE COUNCIL

Future of Submarines and Importance of Investment

Our fundamental priority is to design and build the next generation of U.S. 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 Columbia Class ballistic missile submarine (SSBN) program is the Defense Department's #1 priority. It will deliver a minimum of 12 submarines to replace the current Ohio Class fleet and provide strategic deterrence into the 2080s. Construction of the first submarine officially began in October 2020 with the most mature design in our Navy's submarine shipbuilding history. To prevent a gap in U.S. deterrent capabilities when the Ohio Class SSBNs begin to retire, the first Columbia Class SSBN must be delivered to the Navy in 2027 to make its first strategic deterrent patrol in 2030.

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.

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.



Block I: Baseline Virginia Class SSN

- 421-inch Diameter Torpedo Tubes, 12 individual Vertical Launch System (VLS) Tubes for Tomahawk cruise missiles
- 4 Major Yard Availabilities/ 14 Deployments (6 months)

Block II: Super Modules

- 4 Super modules replace 10 individual modules at final assembly
- Drive to reduce construction time and cost
- Technology insertion

- **Block III: Design for Affordability**
- Large Aperture Bow Array
- 2 large diameter payload tubes replace VLS for 12 Tomahawk or other deployable payloads
- Procurement costs down to \$2 Billion (FY2005 dollars) per hull

Block IV: New Baseline for Reduced Total Ownership Costs

- 3 Major Yard Availabilities/15 Deployments (6 months)
- \$17.6 Billion contract, largest in Navy history • 10 submarines for the price of 9

Block V: Virginia Payload Module Insertion

- New 84 feet long section
- 4 additional large diameter payload tubes for 28 • more Tomahawks or other deployable payloads
- Acoustic Superiority



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 thousands of 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.