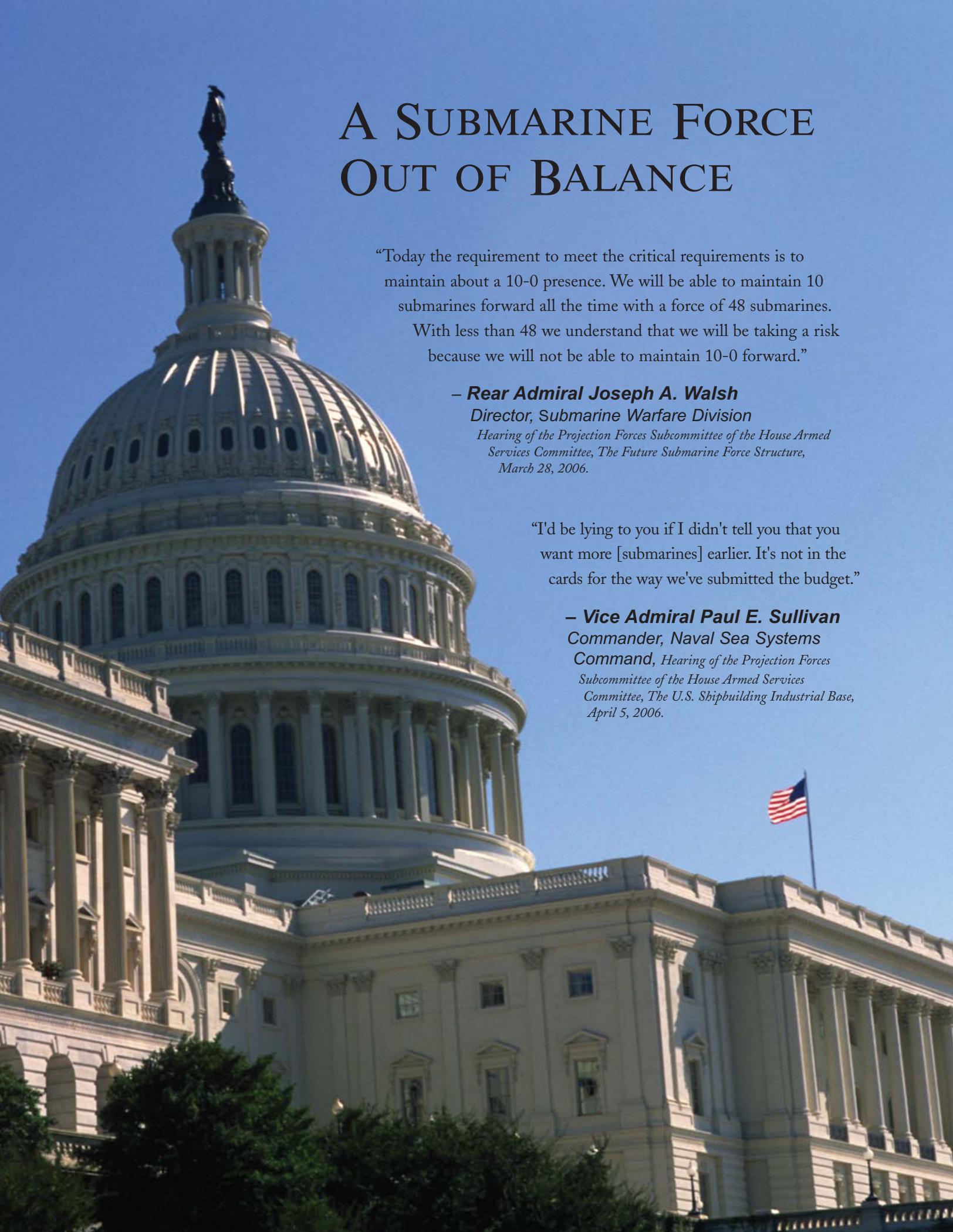


Securing *the* FUTURE

Procuring Two Submarines Per Year



A Call for Nuclear Submarines



A SUBMARINE FORCE OUT OF BALANCE

“Today the requirement to meet the critical requirements is to maintain about a 10-0 presence. We will be able to maintain 10 submarines forward all the time with a force of 48 submarines. With less than 48 we understand that we will be taking a risk because we will not be able to maintain 10-0 forward.”

– **Rear Admiral Joseph A. Walsh**

Director, Submarine Warfare Division

Hearing of the Projection Forces Subcommittee of the House Armed Services Committee, The Future Submarine Force Structure, March 28, 2006.

“I’d be lying to you if I didn’t tell you that you want more [submarines] earlier. It’s not in the cards for the way we’ve submitted the budget.”

– **Vice Admiral Paul E. Sullivan**

Commander, Naval Sea Systems

Command, Hearing of the Projection Forces Subcommittee of the House Armed Services Committee, The U.S. Shipbuilding Industrial Base, April 5, 2006.

WHAT SUBMARINES DO FOR THE WAR ON TERROR AND BEYOND

Conventional Operations Capability

Regardless of air defenses, precision missiles, or weapons of mass destruction, submarines can enter the marine battle space and deliver conventional strikes every time.

Special Operations

Submarines can insert and extract special operations teams in many of the most dangerous and critical environments.

Surveillance and Reconnaissance

Unpredictability, proximity, endurance, and stealth make submarines ideal surveillance and reconnaissance platforms. They can see what no one else can.

Intelligence

Stealth and high-technology components on submarines collect unique and critical intelligence about America's adversaries during times of peace and war.

Sea Control

The vast blend of submarine capabilities make it the linchpin in America's ability vs ongoing struggle to assure trans-oceanic and littoral sea control during times of tension and conflict.

Mine Warfare

Submarines are adept at both laying mines, and detecting and reporting mines.

Nuclear Deterrence

Many nations maintain significant nuclear warfighting capabilities. Submarines can provide unique early indications and warnings regarding deployment of these assets.

Conventional Deterrence

Potential adversaries cannot know where U.S. submarines are, increasing risk in any operations, such as an invasion of Taiwan.



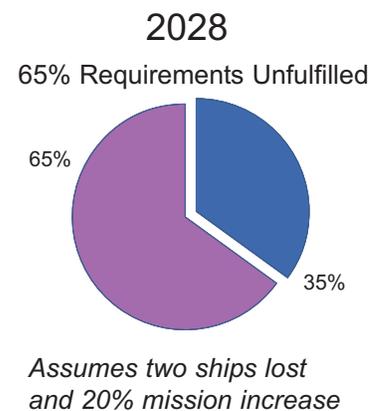
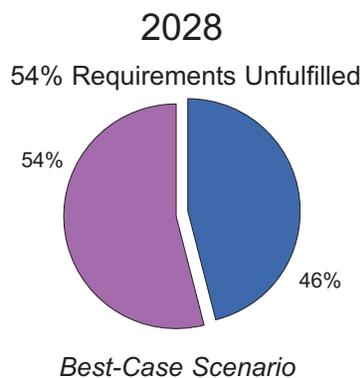
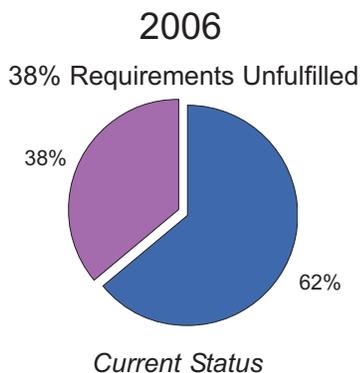
USS VIRGINIA

TOO FEW SUBMARINES TODAY... EVEN FEWER TOMORROW!

The U.S. Navy says it requires 48 nuclear attack submarines (SSN), but it cannot maintain this force level at the current build-rate. Under the proposed shipbuilding plan, in about 20 years, the SSN force will drop to 40 ships – 17% below the proscribed 48 force level. Put another way, in the 2028 timeframe the Navy will be missing one out of six ships it should expect to have.

In 2006, America's submarine force can only fulfill 62% of the Combatant Commanders' requirements. With the

current shipbuilding plan, by 2028, requirements fulfilled will have fallen to 46%. This assumes that the plan is not delayed further, the threat environment remains constant, and no ships are lost through attrition or early retirements. Recent history suggests that none of these outcomes is likely. Under less optimal conditions, where two ships are out of service and requirements are up 20%, the submarine force could only fulfill 35% of requested mission days by 2028.



What Missions Are We Missing?

If the Navy cannot respond to 38% of the Combatant Commanders' requirements and could miss up to 65% in the future, WHAT ARE WE MISSING?

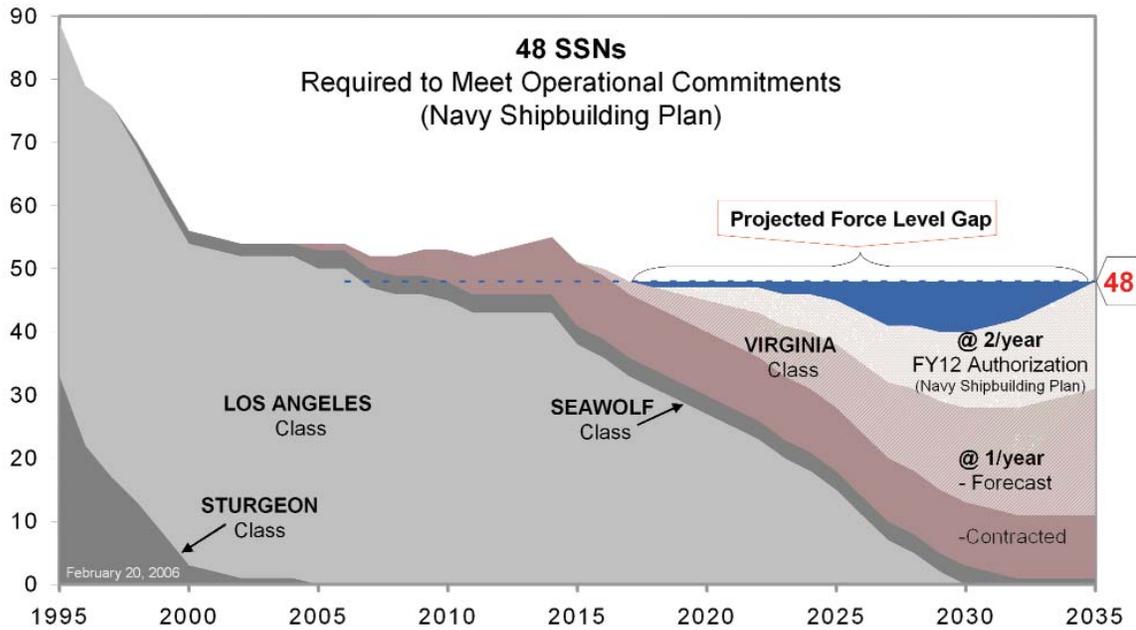
- Osama bin Laden and other terrorist movements?
- The transfer of weapons of mass destruction?
- Critical training with allies?
- The development and deployment of new platforms from potential adversaries like China?
- Another state going nuclear?
- Long-range missile tests?
- The rise of the next terrorist mastermind?

Unfortunately, WE DO NOT KNOW.

“Possibly the best Force level yardstick is the Combatant Commander deployment requests for daily submarine operations, which exceeds what we can provide with the current Force...the current VIRGINIA-Class SSN build plan will take us well below any of these levels a decade from now.”

– **Vice Admiral Charles L. Munns**
Commander, Naval Submarine Forces, before the House Armed Services Committee Subcommittee on Projection Forces on The Nuclear Submarine Force - Past, Present, And Future, June 13, 2005.

Transitioning Virginia Class Procurement to Two Ships Per Year as Soon as Possible...



...Will Minimize the SSN Force Level Gap

“The combatant commanders have asked for 18 submarine years worth of work and we supplied a little over 10.”

In other words...

“We [the submarine fleet] respond to about a little over 60 percent of their requests. So there are about 40 percent that we do not respond to today.”

– **Vice Admiral Charles L. Munns**
Commander, Naval Submarine Forces

Hearing of the Projection Forces, Subcommittee of the House Armed Services Committee, The Future Submarine Force Structure, March 28, 2006.

WHERE'S THE THREAT?

WHAT'S THE RISK?

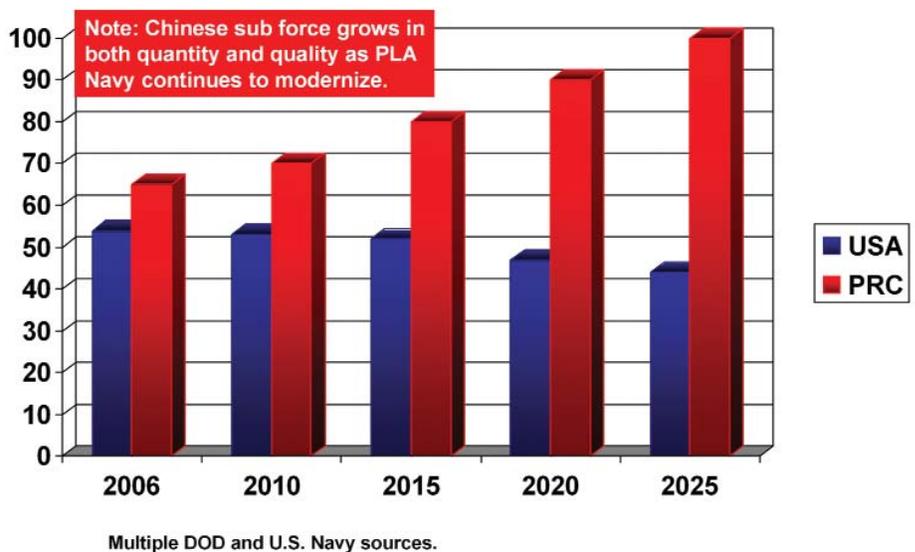
The China Threat is Real

- At the same time the U.S. submarine force dips to 40 or below, China is expected to have nearly 100 modern submarines. [Note: the U.S. Navy will also have decommissioned its four guided missile submarines (SSGN) by 2028, further reducing capabilities.]

- The Chinese trend is clear: According to Congressional Research Service (CRS), China will have commissioned at least 16 new attack submarines from 2005 through 2006.

- In 2005 alone, China had no less than 25 attack submarines under contract, with at least 16 under construction. Three shipyards in China and three in Russia are building submarines for the People's Liberation Army (PLA) Navy.

Projected Submarine Forces of U.S. and China



It is not just the growth of the Chinese submarine force. Numerous other threats are emerging every day that increase the value of America's submarine force.

Other nations are operating submarines.

For example, Russia maintains 53 submarines, North Korea has 26, and Iran has 3.

Anti-ship cruise missiles are proliferating at an alarming rate. One of the greatest threats to America's surface fleet is high-speed, anti-ship cruise missiles. The Russians, Iranians and Chinese all proliferate these weapons, against which U.S. surface ships have limited defenses.

Submarines are immune to surface dispersed nuclear and electromagnetic weapons. The spread of nuclear weapons to non-traditional nuclear states radically

alters the vulnerability of America's fighting forces. Submarines are among the few American assets that can survive either a nuclear strike or an electronics-frying, nuclear-generated electromagnetic pulse.

Technical information gathering is widely available. More nations are gaining access to high-technical capabilities, such as satellite surveillance, previously controlled by only a few countries. Submarines provide the United States with an asymmetrical advantage that allows it to maintain its military superiority.

The United States Intelligence Community was unaware of a new Chinese attack submarine known as the YUAN-Class until photos of the ship appeared on the Internet, raising questions about our ability to predict the future threat.

“After the First World War, the dominant vessel was the battleship. In the Second World War, it was the aircraft carrier. If another global war breaks out, the most powerful weapon will be the submarine.”

- Captain Shen Zhongchang

Chinese Navy Research Institute *China Debates the Future Security Environment*, Michael Pillsbury, January 2000, National Defense University Press

Arms Control Wonk, www.armscontrolwonk.com/639/yuan-class-submarine



As of today, China has launched two YUAN-Class hulls, with more expected.



Aerial photo: <http://www.nukestrat.com/china/subcave.htm>

China's underground facilities demonstrate a commitment to a large, stealthy undersea warfare fleet. Immune to overhead satellites, China's underground submarine bases will complicate U.S. Navy missions to track and counter Chinese missile submarines.



Submarine-based SEALs are at the 'tip of the spear' in the Navy's global war on terrorism.

BUILDING TWO SUBS A YEAR MAKES SENSE AND DOLLARS...



Our Shipbuilders Say a \$2 Billion VIRGINIA-Class Submarine is Possible

"Industry's proposal accelerates procurement of two ships per year in Fiscal Year 2009, providing the volume the Navy needs to build submarines more cost efficiently. This plan enables industry to achieve the CNO's stated \$2 billion per unit cost goal as measured in Fiscal Year 2005 dollars."

- Mr. John P. Casey

President, General Dynamics Electric Boat Corporation, Testimony Before the House Armed Services Committee, March 28, 2006.

"If the current positive trends continue for the submarine building cost and the government successfully executes its plans to reduce the cost of government furnished equipment, and we increase the rate of submarine production to two ships per year under multiyear procurement, I am also confident that the block three submarines [beginning in 2009] can be delivered to the Navy in accordance with the plan you heard earlier of two boats for \$4 billion in 2005 dollars."

- Mr. C. Michael Petters

Corporate Vice President and President, Northrop Grumman Newport News, Testimony Before the House Armed Services Committee, March 28, 2006.

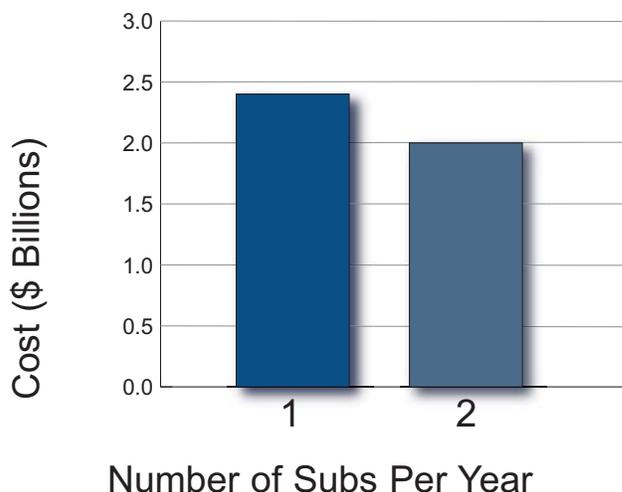
The Navy Says Savings are Possible

"We would save about \$70M per year, or about eight percent, on VIRGINIA reactor plant components just in overhead if we were buying two shipsets instead of just one."

"Since 1995, the start date for a two-per-year VIRGINIA-Class submarine build rate has changed seven times. Each time a date moves to the right, we lose credibility with suppliers whose business consists largely of Navy orders, and in turn, this erodes their willingness to make investments for greater efficiency in the future."

- Admiral Kirkland H. Donald

*Director, Naval Reactors
Hearing of the Projection Forces Subcommittee of the House Armed Services Committee, Nuclear Submarine Force: Past, Present, and Future, June 13, 2005.*



Building a second VIRGINIA-Class submarine per year brings the per submarine cost to \$2 billion.

THE SUBMARINE INDUSTRIAL BASE: A UNIQUE AMERICAN ASSET

“I will say that in the submarine area, about 80 percent of the vendors, sub-vendors are sole source now.”

– **Ms. Allison Stiller**

Deputy Assistant Secretary of the Navy for Ships

Hearing of the Projection Forces Subcommittee of the House Armed Services Committee, The Future Submarine Force Structure, March 28, 2006.

“The vendors have exited the business; we are, in fact, down to sole source, and that’s driven the costs of the submarines up. That’s a fact; we have to face up to that.”

– **Vice Admiral Paul E. Sullivan**

Commander, Naval Sea Systems Command

Hearing of the Projection Forces Subcommittee of the House Armed Services Committee, Hearing on The U.S. Shipbuilding Industrial Base, April 5, 2006.

The U.S. is already losing critical and difficult-to-reconstitute construction, design and supply skills because of an anemic build-rate.

- A major shipbuilder may be forced to lay off half of its 11,000 workforce in the next three years, thereby eliminating the industrial capacity the Nation will need to build two per year later.
- Many suppliers have already left the business – the Navy reports that 80 percent of the United States’ submarine sub-vendors are now sole-source suppliers, raising costs across the board in the absence of competition.
- The ability of the British to design and build submarines was severely diminished because they let critical skills and knowledge atrophy under an anemic build-rate. Can the U.S. afford to risk a similar fate?

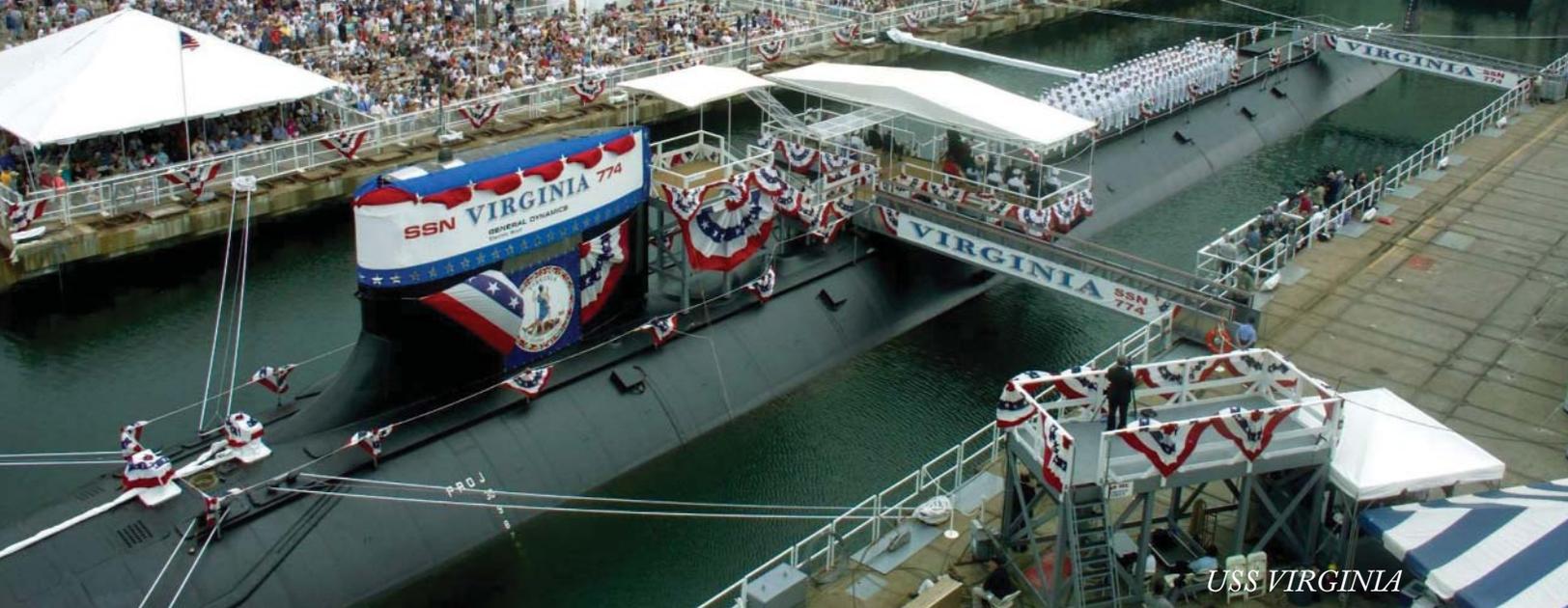


Suppliers by State

The submarine industrial base has more than 4,000 companies in 47 states. The total amount spent or contracted to submarine suppliers for the VIRGINIA-Class program through early 2006 was over \$6.5 billion.

Alaska, Hawaii, Montana are not part of the Industrial Base

Source: Submarine Industrial Base Council



The Issues

Funding Two VIRGINIA-Class Submarines Per Year Makes Good Sense

There are three major reasons for accelerating VIRGINIA-Class Production: national security requirements, shipbuilding costs, and the stability of the industrial base. Advanced procurement funding for long-lead items will allow Congress to accelerate dual production of VIRGINIA-Class submarines before 2012.

National Security

- Today, the U.S. submarine force fulfills only 62% of the Combatant Commander requirements, leaving important missions undone.
- According to Vice Admiral Charles Munns, Commander of the U.S. Submarine Force, the Combatant Commanders are asking for 18 submarine years worth of work, but the Navy can provide only 10 years.
- The Navy's stated requirement is 48 nuclear attack submarines (SSN), but the Navy cannot maintain this force level at the current build-rate.

-Under the proposed shipbuilding plan, in about 20 years the SSN force will drop to 40 ships – 17% below the state requirements of 48.

-Put another way, in the 2028 timeframe the Navy will be missing one out of six ships it should expect to have.

- The Navy's plan assumes no attrition or early retirements. The U.S. submarine force could fall even lower as a result of accidents, wartime attrition or early retirements caused by a high operation tempo.

- China will have commissioned at least 16 submarines from 2005 through 2006.

Cost

- Industry has testified to Congress that it can reduce the cost of VIRGINIA-Class submarines from \$2.4 billion to \$2 billion IF Congress funds two per year starting in 2009.
- The VIRGINIA-Class program was initially expected to build two per year starting in 2002.

-There are two VIRGINIA Class submarines at sea today - a proven, stable design with little future cost risk.

-Seven program changes since 1995 have increased unit cost.

- Accelerating VIRGINIA-Class production will also significantly reduce the cost of aircraft carriers because of volume efficiencies associated with the nuclear naval reactors.

Submarine Industrial Base

- The U.S. is already losing critical and difficult-to-reconstitute construction, design and supply skills because of an anemic build-rate.
- Many suppliers have already left the business – the Navy reports that 80 percent of the United States' submarine sub-vendors are now sole-source suppliers, raising costs across the board in the absence of competition.
- The ability of the British to design and build submarines was severely diminished because they let critical skills and knowledge atrophy under an anemic build-rate. Can the U.S. afford to risk a similar fate?

Accelerating VIRGINIA-Class Production Will:

- Provide America's military leaders with the tools they need to meet the many threats facing the Nation today and into the future.
- Decrease VIRGINIA-Class costs through volume efficiencies to let industry achieve a \$2 billion submarine.
- Help maintain a submarine industrial base sufficient to meet U.S. defense capability requirements in a timely manner and at a reasonable cost.

**We must build our submarine force today
if we want an effective one tomorrow.**

