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# UNTIL RELEASED BY THE HOUSE COMMITTEE ON ARMED SERVICES SUBCOMMITTEE ON SEAPOWER AND PROJECTION FORCES

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#### BEFORE THE

HOUSE COMMITTEE ON ARMED SERVICES
SUBCOMMITTEE ON SEAPOWER AND PROJECTION FORCES

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## **Introduction**

Chairman Kelly, Ranking Member Courtney, and distinguished members of the Subcommittee, the Department of the Navy (DON) team is honored to be here to provide an update regarding the Submarine Industrial Base (SIB), including construction, sustainment, ongoing improvements, and its ability to support the AUKUS Pillar One Optimal Pathway for delivering a conventionally armed, nuclear-powered attack submarine (SSN) capability to Australia.

On September 15, 2021, the leaders of Australia (AU), the United Kingdom (UK), and the United States (US) announced AUKUS, a new trilateral security partnership. AUKUS is a generational opportunity to enhance warfighting capabilities, improve interoperability, and strengthen integrated deterrence. Our three countries are dedicated to building a world that operates under international laws and norms, and ensures the freedom of all people around the world, including in the Indo-Pacific region.

For more than a century, Australia has been one of America's staunchest allies, having fought side-by-side since World War I. In World War II, we conducted offensive submarine operations out of Australian ports. Our alliances and partnerships remain our key strategic advantage. The Submarine Force routinely operates forward alongside allies and partners through combined operations, theater security cooperation, and capacity-building initiatives. Working together, we strengthen our ability to prevail in conflict and further bolster integrated deterrence by demonstrating a united front against potential adversaries. Since USS NAUTILUS (SSN 571) got underway on nuclear power in 1955, followed by HMS DREADNOUGHT (S 101) in 1962, the US and UK have enjoyed an undersea overmatch. The AUKUS nations are building upon their long-standing partnerships to deliver conventionally armed, nuclear-powered attack submarines (SSNs) at a time when Australia's six COLLINS Class diesel-electric submarines, which were commissioned between 1996 and 2003, are coming to the end of their service lives. To build upon our undersea overmatch, the United States and the UK are committed to delivering conventionally armed SSNs to Australia as part of the AUKUS Pillar One initiative in order to maintain a rules-based order in the Indo-Pacific.

# **AUKUS Pillar One**

AUKUS Pillar One, also called the "Optimal Pathway," is Australia's effort to acquire sovereign SSN capability. Nuclear propulsion enables unmatched endurance, survivability, and speed over diesel electric submarines. This capability comes with great responsibility and stewardship requirements to safely operate these submarines.

The Optimal Pathway is a three-phase, conditions-based approach with increasing commitment and connection across our nations. AUKUS partners will exchange ideas, personnel and collaboratively develop advanced undersea capabilities.

• <u>AUKUS Pillar One – Phase One</u>: Phase One of the Optimal Pathway will culminate in the establishment of Submarine Rotational Force – West (SRF-W) in 2027. At its peak, up to one UK and four US SSNs will conduct rotational operations out of HMAS *Stirling*. SRF-W will require crew training facilities and an intermediate maintenance detachment. These submarines and supporting organizations will be crewed by both US and an increasing number of AU submariners and civilians in preparation for AU having their own sovereign SSN force and domestic nuclear propulsion regulator.

- <u>AUKUS Pillar One Phase Two:</u> Phase Two marks the start of Australia's SSN capability in the early 2030s when, pending Congressional approval, the US sells the first VIRGINIA Class (VACL) SSN to Australia. The Optimal Pathway calls for the US to sell three VACL submarines, with the potential to sell up to two more, to bridge the gap between the retirements of Australia's COLLINS Class submarines and the delivery of the first SSN AUKUS.
- <u>AUKUS Pillar One Phase Three:</u> AUS plans to deliver the first Australian built SSN AUKUS in the early 2040s. SSN AUKUS is a baseline UK design, augmented with both US and AU technologies, improving the overall performance of the submarine and maximizing commonality across partner nations. Construction is planned in both the UK and AU, where AU will build hulls for integration with US or UK provided power plants. Australia began the process to build an entirely new submarine shipyard in South Australia to support SSN AUKUS and future submarine sustainment.

#### **AUKUS Framework**

AUKUS strengthens our defense industrial bases and meets our shared security objectives. Executing the Optimal Pathway will play a crucial role in maintaining regional security and stability. Developing a sovereign Australian, conventionally-armed SSN force yields worldwide interoperable submarine forces by:

- Elevating Australia, already a submarine operational peer, to a technical equivalency with the US and UK nuclear-powered attack submarine forces.
- Strengthening the trilateral SIB, including through the use of Australia's expected investment in the US SIB, creating jobs and catalyzing technological advancements.
- Developing a new class of attack submarine (SSN AUKUS) incorporating US technology into a UK design as the next generation SSN to be built in both the UK and AU.

Our three nations have a long-established history of both programmatic and operational cooperation. Australia being a full partner within the AN/BYG-1 submarine Combat Control System (CCS) and MK 48 ADCAP Heavyweight Torpedo (HWT) programs. Our modern relationship with the UK's submarine force dates back to 1958 with US/UK Mutual Defense Agreement which facilitated the inclusion of a US designed nuclear propulsion plant in the first UK nuclear submarine, HMS DREADNOUGHT (S101), followed by the sale of POLARIS Submarine Launched Ballistic Missiles (SLBMs) and our common sea based strategic deterrent. Operationally, our three nations have participated in countless joint operations, exercises, shared submarine operational missions, and exchanged personnel. In doing so, our countries built bonds developed from shared experiences and a shared commitment to freedom. Ultimately, our close military bonds make our three nations stronger and more secure.

### **Operational Imperative**

AUKUS deepens diplomatic, security, and defense cooperation in the Indo-Pacific. AUKUS is critical to national security, and both AU and the UK are trusted allies. AUKUS Pillar One will deliver an asymmetric defense capability to Australia. This will continue Australia's deterrence capabilities by deploying credible combat power and increasing the operational complexity faced by our adversaries.

AUKUS strengthens US and allied industrial capacity to keep pace with our adversaries and supports our enduring mission of sea control, power projection, integrated deterrence, and maritime security.

Furthering our partnership with Australia provides several geographic advantages: faster transit times into the Indo-Pacific region, command infrastructure and resources outside potential adversary weapon engagement zone, and ensured access to support infrastructure and the Indian Ocean. Access to the Indian Ocean reduces reliability on historical choke points with significant security concerns in the Middle East. Partnership with AU affords a dual – vice single – axis of approach against potential adversaries in the Indo-Pacific region. Dual axes of approach create additional uncertainty for an adversary, incurring longer decision chains, reduced capabilities, and additional logistical challenges. From 1942 to 1945, US submarine squadrons based in Brisbane and Fremantle completed over 500 patrols. Their geographic location greatly contributed to winning the Second World War in the Pacific.

To reemphasize our existing relationship, we already developed and rely on robust exchange programs as well as in-depth integration with our partners in AU and the UK. Multiple AU, UK, and US Officers and Sailors have served on each nation's submarines for decades. We coordinate water space, collaborate on core submarine mission areas, and conduct joint exercises. As highlighted above, we are already warfare integrated today with Australia, a fully-invested partner in the AN/BYG-1 CCS and MK48 ADCAP HWT. AUKUS expands our existing partnership and adds the sharing of nuclear propulsion technology.

The US Submarine Force continues to face challenges in HWT inventory and ability to build additional munitions. AUKUS Pillar 2 provides an opportunity to enhance the industrial capacity by adding Australian production of munitions. AUKUS will provide additional industrial capacity for Unmanned Undersea Vehicles (UUVs), as AUKUS partners are already investing in this domain. Additionally, Australia acquired Subsea Seabed Warfare (SSW) assets to execute and expand their role in the SSW domain. This close coordination with both technology and personnel exchanges makes our countries stronger and more secure.

#### **Submarine Industrial Base (SIB)**

The US Submarine Force and our SIB are crucial to the security of our Nation, and maintaining overmatch in the Undersea Warfare domain is one of the top priorities in the Department of Defense. Submarines, therefore, are one of the most important battle force vessels in our Navy. Forward deployed, combat-credible attack submarines project US decisive naval power essential in today's security environment. Construction and sustainment of our submarine force is complex, difficult, and requires a continuous focus on safety and nuclear stewardship. Our SIB is supporting the largest submarine recapitalization effort in nearly 50 years and at a time when American manufacturing and shipbuilding capacity has atrophied by more than 60 percent since the end of the Cold War.

The US is simultaneously replacing our strategic Ballistic Missile Submarine (SSBN) force with the COLUMBIA Class, transitioning our SSN force from LOS ANGELES to VACL, and replacing our Guided Missile Submarine (SSGN) capability with 'strike optimized' VIRGINIA Payload Module (VPM) submarines. VPM includes a new hull section with additional vertical launch tubes for conventionally armed missiles to the VACL submarine design. Adding AUKUS requires us to improve our new-construction and sustainment efforts to ensure we meet our domestic requirements while supporting the trilateral partnership. Both our SIB uplift effort and the AUKUS program are executing

aggressive and deliberate schedules designed to meet our national security needs. Continued partnership with Congress is foundational to our collective success in these two generational opportunities. The SIB, consisting of our public shipyards and two prime shipbuilders, General Dynamics Electric Boat (GDEB) and Huntington Ingalls Industries Newport News Shipbuilding (HII-NNS), along with the 16,000 suppliers (5,000 direct contractual relationships and 11,000 sub-tier vendors) across the country, support both our new-construction submarines and sustainment of the inservice submarine fleet.

It has been nearly 50 years since the US ramped-up its submarine construction capability and infused equivalent volumes of complexity and work into the industrial base. Following the Cold War, the country underwent significant shifts in economics and culture, punctuated by a clear transition from a manufacturing-based economy to a services-based economy. This pivot undermined foundational industrial capabilities and capacities and challenged our ability to maintain the sufficiently skilled and sized workforce needed for a resilient and robust SIB.

In FY 2018, with leadership and support from Congress, the DON began infusing funding into the SIB to increase capability and capacity at new and existing suppliers to meet growing demand and increase resilience across the supply chain. In October 2020, the DON established the SIB Program within the Program Executive Office for Strategic Submarines (PEO SSBN). The SIB Program, in partnership with the Office of the Secretary of Defense Industrial Base Analysis and Sustainment program, is executing a holistic strategy to expand and strengthen the SIB by investing in six key areas: shipbuilder infrastructure, supply chain capability/capacity, scaling new technologies, addressing workforce trade skill gaps and constraints, expanding capacity via strategic outsourcing, and government oversight of expanded industrial base efforts.

The AUKUS partnership provides an unprecedented opportunity to leverage the capabilities of our partner nations, strengthen our defense industrial bases, create jobs, and drive innovation across our SSN force. AUKUS relies on a strong SIB that designs, delivers, maintains, and modernizes our apex predators of the oceans – SSNs. Our domestic industrial base will benefit from the industrial capabilities of our partner nations, such as joining with an Australian company to mature and scale metallic additive manufacturing across the SIB. Ultimately, AUKUS will increase commonality, interoperability, and therefore, warfighting lethality across our three submarine forces.

Australia's investment into the US SIB builds upon on-going efforts to improve industrial base capability and capacity, create jobs, and utilize new technologies. This contribution is necessary to augment VACL production from 2.0 to 2.33 submarines per year to support both US Navy and AUKUS requirements. Through sustained investment, consistent with our ongoing strategy, the ultimate goal is to increase repair capacity and capability of US shipyards to get more SSNs out of maintenance and back to the Fleet. AUKUS also presents a unique demand on the US SIB requiring a "Whole of Government, Whole of Industry" approach to achieve and sustain pace, including supporting both US and partner nation efforts.

### **Submarine Construction:**

The current submarine construction rate, coupled with systemic challenges facing the US SIB, resulted in the current annual production rate of 1.2 to 1.3 VACL SSNs per year, compared to the goal of 2.0 VACL SSNs per year. This SSN construction rate, coupled with COLUMBIA Class SSBN serial

production starting in FY 2026 (pending Congressional authorization and appropriations) is what we call "1+2," for the one COLUMBIA Class SSBN and two VACL SSNs per year.

The recapitalization process to achieve the 1+2 cadence increases the demand on the US SIB by a "workload equivalent" factor of five by 2028. 2015 was the last year the Navy was scheduled to deliver one VACL SSN (1.0). One COLUMBIA Class SSBN represents approximately 2.5 VACL SSNs in terms of build resources (manning) and tonnage. The addition of the VPM design equates to 1.25 legacy (2015) VACL SSNs. Thus, a 1.0 build rate from 2015 becomes 5.0 in 2028 to achieve 1+2 cadence (2.5 + (1.25 + 1.25)). The DON's submarine builders, GDEB and HII-NNS, and their supporting supplier base are working to achieve this 1+2 rate in 2028 by investing in workforce development and retention efforts, increasing capacity and capability through infrastructure and equipment upgrades, and partnering with the DON to mature and scale advanced manufacturing technology throughout the SIB.

#### **Submarine Sustainment:**

The DON must sustain its existing submarine force while also building new submarines. A robust public and private shipyard maintenance capability is necessary to conduct repairs, modernize the force, and, if necessary, repair battle damage in time of conflict. The sustainment SIB supports a similar, but different, discipline from new construction. The four Naval Shipyards (Portsmouth, Norfolk, Puget Sound, and Pearl Harbor), two Trident SSBN Refit Facilities (Kings Bay and Bangor), and dedicated portions of the yards at GDEB and HII-NNS perform maintenance and sustainment for our submarine force. The team must first ensure SSBN availability meets DON Strategic Deterrence requirements as the number one priority for sustainment. SSN sustainment must improve to support readiness and, pending Congressional approval, also supports sales of SSNs under AUKUS by increasing availability.

Since May 2023, when public shipyard SSN on-time delivery accountability shifted to the Submarine Force Commander, SSN availability increased from 60 percent to between 64-67 percent. We continue to work towards our North Star of 80% SSN readiness. We are focused in three major areas: Execution, Material, and Modernization/Planning. We already identified or realized more than \$170 million of savings from public shipyard availabilities. Those savings are due to a variety of efforts: better execution, better material support, improved modernization, and better overall planning. This remains a top priority, and the DON already programmed more than \$2 billion for improving inservice maintenance. All of these efforts are absolutely necessary for our own submarine force, but they also support AUKUS. Strong, resilient, and skilled maintenance capability is foundational to a robust and capable submarine force.

To support the necessary increase in sustainment productivity and SSN force availability, the US developed a 15-year SSN Maintenance Strategy. The strategy identifies key investments in the FY 2024 budget helping increase confidence in execution of planned maintenance in the public shipyards and continued overhaul work for the private sector shipyards for FY 2024 and beyond. VACL material strategy and additional focused efforts in the areas of supplier development, strategic outsourcing, shipyard infrastructure, and workforce development will help drive improvements to SSN maintenance and sustainment. We are undertaking efforts to identify future years funding requirements, and will partner with Congress as information becomes available.

As the Navy is continuing to change policies and approaches to improve submarine sustainment, congressional support for selected initiatives will move the needle. The Navy appreciates the support of this Committee, specifically, the provision providing for living quarters allowance for Navy civilians who maintain our ships in Guam. The sustainment expertise of these civilians is essential to Fleet operations, but the high cost of housing means we have significant difficulty in recruiting and retaining the workforce we need. Congress' support for this authority would be extremely helpful.

# **SIB Recapitalization**

The recapitalization of the US Submarine Force, plus the investment in AUKUS, requires continued and significant investments in US facilities, infrastructure, and workforce. Our SIB recapitalization effort creates large numbers of hands-on jobs across the nation. Targeted workforce growth includes, but is not limited to:

- Trades Welders, Shipfitters, Electricians, Machinists, Pipefitters, Painters, and Electronics Technicians.
- Supporting Disciplines Planners, Estimators, Material Managers, Contract Specialists, Information Technology Experts, Quality Assurance Specialists, and Project Leaders.
- STEM Structural, Electrical, Mechanical, and Nuclear Engineers; Designers; Test Coordinators; Metallurgists; Computer Scientists; Logisticians; etc.

Significant investments into the submarine supplier base will produce increased volume of basic materials, specialized materials, and engineered components required for modern nuclear-powered submarine construction, such as:

- Steel and specialty metals.
- High-tech castings and forgings.
- Electrical components.
- Combat Systems.
- Propulsion Plant components.
- Valves, pumps, pipes, fittings, and fans.
- Software and information systems.

In partnership with Congress, the Office of the Secretary of Defense and the DON made substantial SIB investments, with \$2.3 billion across FY 2018 through FY 2023 currently in execution and \$1.6 billion planned for FY 2024 through FY 2027. There is also an additional \$2.2 billion for submarine sustainment efforts submitted in the President's Budget for FY 2024 through 2028. This much-needed resourcing is purposefully designed to help build and strengthen SIB capacity, capability, and resilience. These resources are primarily being utilized across six lines of effort, and are needed to support efforts to increase submarine construction and sustainment rates:

- 1. Supplier Development: Add capability and/or capacity to existing suppliers, reduce single/sole-source risks for resiliency and robustness, improve first time quality.
- 2. Shipyard Infrastructure: Accelerate investments in shipbuilder facilities, footprint, and machines/fixtures.
- 3. Strategic Outsourcing: Increase supplier capacity to shift non-core workload away from the two submarine shipbuilders to free up footprint, resources, and focus for shipbuilder-only work.
- 4. Workforce Development: Train current and future trades at sufficient rates, and help build adequate hiring pool for vendors and shipbuilders.

- 5. Government Oversight: Increase the Navy's oversight of the vendor base as result of lessons learned from historical quality and schedule adherence challenges.
- 6. Technology Opportunities: Implement additive manufacturing, and non-destructive test imaging technology to remove known production risk areas and bottlenecks.

The DON began execution of these SIB efforts several years ago as building facilities, growing workforces, and increasing production rates takes time. Our dividends are not fully matured yet. Some of the significant returns on this investment include:

- 194 suppliers in 31 states received funding to generate increased production and increase capacity.
- Approximately 4 million hours strategically sourced by EB and HII-NNS to key fabricators (goal is at least 6 million hours by 2026).
- Approximately 1,000 new workforce members in more than 120 second and third-tier key suppliers with more to come each year.
- Establishment of dedicated training centers trained more than 3,500 workers since 2020.
- Establishment of an industry-wide consortium for advanced manufacturing technology supplying critical submarine components from 6 crucial submarine-specific metals contributing to 75-percent of troubled submarine components.

The DON also worked with a non-profit partner to develop the workforce recruiting and support website, "Build Submarines.com." This site serves as a central hub of information to support workforce development efforts related to our national advertising campaign for the SIB including resources for those interested in submarine construction or SIB related careers. The DON is on a mission to make ship and submarine manufacturing a preferred profession again and it is a national imperative.

Deepening our cooperation and integration with AU and the UK across the submarine enterprise presents a unique opportunity for innovation, growth, and mutual development. The partnership will create jobs, contribute to the diversification of ideas, and augment our collective technical and intellectual base. The partnership will also open up new markets and business opportunities, enhancing the resilience of both nations' economies. This will pave the way for additional joint ventures, thereby fostering a shared sense of purpose, knowledge exchange, and a more connected community of subject matter experts.

#### **Partnership with Congress**

Congress is a *critical* AUKUS partner. AUKUS can only succeed with the same, continued bi-partisan support demonstrated since the March 2023 announcement of the Optimal Pathway. To maintain momentum and programmatic schedules, there are four critical legislative proposals that must be passed as part of the FY 2024 National Defense Authorization Act (NDAA). Specifically:

1. <u>Sale of VACL Submarines</u> includes both political and programmatic imperatives. Passage demonstrates the US commitment, sends the right signal to Australia to make proportional contribution into the US SIB, and keeps Pillar One on track. It is critical that this legislation pass without language that could undermine Australian certainty of these U.S. transfers under the agreed upon optimal pathway. Passing this legislation now will also allow for the appropriate amount of time to complete what will be an extremely complicated Foreign

Military Sales (FMS) case. The FMS case allows Australian personnel to take part in the planning and execution of the major maintenance availability occurring prior to the first planned SSN transfer. Including AU in these efforts allows future AU crews better access and understanding of the SSN operation and integrates the maintenance team for observation of the planning and execution of a large maintenance period. Planning for this availability starts within the next two years. Therefore, to support Australian personnel integration into the planning, execution, and re-delivery process, the FMS case requires Congressional authorization this year.

This legislative proposal also amends Section 8680 of Title 10 to allow for the maintenance of US submarines in Australia and the UK and to be carried out by personnel from all AUKUS nations. Modifying Title 10 is critical to establishing Submarine Rotational Force-West (SRF-W) by late 2027 and ultimately Australia's ability to safely and effectively operate SSNs. Not passing this legislation will require the US to alter maintenance work associated with planned SSN port visits in 2025, impacting Australia's ability to build the knowledge, skills and stewardship required to operate SSNs and will likely delay the establishment of SRF-W.

- 2. Acceptance of contributions is required this year to authorize the US Department of Defense to receive Australia's proportional contribution for the US SIB starting in 2025. In addition to paying replacement cost for each VACL, Australia has committed to make a proportionate financial contribution to the U.S. SIB to accelerate VACL delivery. At the United States request, the Australian government has agreed to provide the majority of these funds in 2025. Passing this provision allows the US Government to establish the accounts and structures to properly manage the funds.
- 3. The <u>training proposal</u> is required to fully develop the Australian submarine industrial base and allow for personnel to be embedded in early calendar year 2024. Without this provision, the number of Australian personnel eligible for training in the US would be well below projected requirements and will negatively impact the establishment of SRF-W.
- 4. The Department of State submitted a legislative proposal to modify the International Traffic in Arms Regulations (ITAR) laws to better support AUKUS. Although this provision will have the greatest impact on AUKUS Pillar Two, it will also allow for enhanced cooperation in Pillar One as well and allow our trilateral industrial partners to better collaborate and innovate.

Additionally, on October 20th, the President submitted to Congress a supplemental request, which requests additional funds to further investments in the submarine industrial base. This funding is critical to improve build and sustainment rates for attack submarines in order to meet U.S. military requirements, and will also support our commitments under AUKUS. We urge Congress to provide quick passage of this funding request.

AUKUS requires action now to take advantage of this opportunity. The Optimal Pathway contributes to a stable and peaceful Indo-Pacific region by ensuring one of our closest partners is able to maintain and operate a world-class, nuclear-powered submarine fleet, increases the national security capabilities of the United States and two of its closest allies, and contributes to building a robust and resilient industrial base across the partner nations. In order for the program to succeed, a sustained commitment

from the AUKUS governments is needed achieve the timelines for delivering this generational capability to support our allies and enhance our trilateral security and uplift the US SIB.

### **Conclusion**

Thank you for your interest, steadfast commitment, and support to the Submarine Industrial Base, our critical capabilities, workforce, and AUKUS. The extensive SIB uplift effort is an important step ensures the US has the submarines we need to defend the homeland. It is critical to increasing the number of deployable submarines around the world, and Congress' investment into the US SIB allow our industry partners to improve performance and deliver our submarines on time. AUKUS, a generational opportunity, deepens our cooperation and integration with AU and the UK across the submarine enterprise, and presents the ability to leverage a trilateral industrial and research base to ensure our platforms continue to dominate the undersea battlespace. Industrial benefits and investments will drive innovation, growth, and job development in each AUKUS nation. Furthermore, it will strengthen our trilateral partnership, contribute to the diversification of ideas, and augment our collective technical and intellectual prowess. AUKUS will open up new markets and business opportunities, improving the resilience of our three economies and allowing for joint ventures directly contributing to a stable and peaceful Indo-Pacific, ensuring Freedom of the Seas, and thereby enhancing our national security.