U.S. Submarine Maintenance Period Demonstrates Forward Sustainment in Australia

From Ashley Calingo, AUKUS Integration & Acquisition Public Affairs, Feb. 20, 2026

HMAS STIRLING, Western Australia - Last November, on the edge of the Indian Ocean, just beyond mainland Australia and across the Garden Island Causeway to HMAS Stirling, a U.S. Virginia-class submarine quietly completed the first submarine maintenance period without the support of a U.S. submarine tender—a specialized vessel that provides mobile repair and supply services.

What appeared to be a routine maintenance stop for the USS

Vermont (SSN 792) carried far greater meaning for the United States, Australia and the United Kingdom. The availability marked a decisive step in turning the AUKUS security partnership into an operational reality, reinforcing the Department of War's peace through strength approach to security in the Indo-Pacific. By expanding allied capacity to repair, sustain and re-supply submarines forward in a strategically relevant region, AUKUS strengthens deterrence and ensures combat-credible forces are postured to deter aggression across the Indo-Pacific.

"This was the first time a maintenance availability at this level has ever been done on a Virginia-class outside the United States," said Cmdr. Matthew Lewis, commanding officer of Vermont. "The ability to work through differences, uphold safety standards and execute all the planned work was huge."

At the center of that effort was a blended American and Australian maintenance team led by Pearl Harbor Naval Shipyard and Intermediate Maintenance Facility (PHNSY & IMF), whose flyaway workforce provided the technical backbone for the submarine's availability in Australia and demonstrated the ability of allied forces to operate as a single, integrated maintenance team.

"This maintenance period demonstrates what AUKUS Pillar I is designed to deliver," said Rear Adm. Rick Seif, U.S. Navy, AUKUS Integration and Acquisition program manager. "We are moving from planning to execution. Each successful availability strengthens allied readiness and our ability to sustain submarines forward in the Indo-Pacific."

Before any maintenance could occur, the team first had to solve a more fundamental challenge: how to support a maintenance availability for a nuclear-powered submarine at a foreign pier without the familiar infrastructure of a U.S. shipyard or tender. Bipartisan legislation in the Fiscal Year 2024 National Defense Authorization Act, followed by

approval from Secretary of War Pete Hegseth, provided the authority for the Navy to conduct submarine maintenance in a foreign port.

“Seventy-five to 80 percent of any submarine maintenance availability is simply setting the conditions to do the work,” said Capt. Jason Pittman, AUKUS I&A ’s liaison to the Australian Submarine Agency “Temporary shore power, high-pressure air, chilled water and staging all have to be in place before you can even begin.”

During this maintenance period, Australian industry set many of those conditions through structures and systems that were locally sourced, procured and installed.

Among the most significant was a mobile pure water purification plant—the first of its kind in the world—manufactured in Western Australia and positioned directly on the pier for the maintenance period. The systems on U.S. nuclear-powered warships require high purity water, which is traditionally delivered by fixed facilities. The mobile system demonstrated how AUKUS partnerships can drive innovation that benefits both U.S. submarine operations and Australia’s growing sustainment capacity.

“We provided the chemical specification for the water we needed, and Australian industry developed the solution,” Pittman said. “It is efficient, affordable, mobile and performs exactly as required.”

One blended workforce, one plan

The integration extended across Royal Australian Navy Fleet Support Unit sailors, divers, Australian industry and local logistics providers. Each day required tight synchronization between maintenance execution, diving operations, port traffic, base operations and Australian safety standards.

“This availability was not just about maintaining a submarine,” said Lt. Cmdr. Ryan Willis, the AUKUS I&A representative at HMAS Stirling and the maintenance operations liaison during the submarine maintenance period. “It was also about demonstrating capabilities, proving that Australia can support maintenance of nuclear-powered submarines with local solutions.”

By the time the submarine prepared to depart HMAS Stirling, the blended maintenance workforce had completed more than 200 individual maintenance tasks, ranging from hull preservation and temporary service installations to complex system access, testing and restoration.

Many of the Australian sailors and civilians executing those jobs had trained earlier this year at PHNSY & IMF, working alongside the same U.S. maintenance professionals supporting the SMP in Western Australia.

“For me, equally important to the physical work we did on the deck plate were the relationships we forged with the shipyard teams and the U.S. maintenance side,” said Royal Australian Navy Fleet Support Unit Chief Petty Officer Steven Sheakey, one of the sailors who trained at PHNSY & IMF last year. “That trust is what makes everything else possible.”

Royal Australian Navy Fleet Support Unit Petty Officer Christopher Warnes said the experience reshaped how he viewed Australia’s growing sustainment role.

“This was the first time we’ve performed maintenance at this level on a nuclear-powered submarine,” said Warnes. “We proved we could do it. For instance, in my section, if someone was missing a part or resource, I was able to take them to the amazing facilities that we do have here to find a solution.”

A shipyard thousands of miles from home

Leading the technical execution was PHNSY & IMF Project Superintendent Maea Lefotu, whose flyaway team brought decades of submarine maintenance experience to an unfamiliar operating environment.

“For me, this is about sharing more than 20 years of experience and applying it in a new environment,” Lefotu said. “The work is familiar, but the environment and logistics are not. Everything here requires more coordination, more communication and more trust.”

Without the proximity of a home shipyard, every decision carried operational weight, from material sourcing to documentation to safety verification.

“Maintenance is rarely executed to a plan written weeks ahead of time,” Willis said. “It is about identifying issues, adapting and delivering safe, clean results under tight conditions.”

Lefotu said the disciplined daily coordination kept the project aligned.

“Our meeting rhythm kept everyone on the same plan,” he said. “The Pearl [Harbor] team, along with the ship’s force, the Australian and U.K. sailors and civilians were all working toward the same goal.”

Trilateral by design

The U.K. embedded engineers and officers throughout the maintenance availability as they prepared for their o wn nuclear-powered submarine maintenance period at HMAS Stirling in early 2026.

“The U.K. does not consider a U.S. submarine maintenance availability at HMAS Stirling to be a U.S.-only maintenance availability,” said Capt. Shaun Southwood, the U.K.’s liaison officer for AUKUS in Australia. “Every submarine maintenance

period here is trilateral.”

British personnel observed technical demonstrations, safety drills and procedure validations across the availability. Lessons learned during the availability now feed directly into preparations for the U.K.’s first submarine maintenance period at HMAS Stirling, scheduled for early 2026.

“What the U.S. learned here directly supports the upcoming U.K. maintenance period,” Southwood said.

Why it matters

For Pittman, the significance of the maintenance period extends far beyond a single submarine.

“Each maintenance period builds toward a future where Australia can support submarines forward deployed,” he said.

Willis said the operational payoff is immediate, noting, “a submarine that can receive maintenance here instead of returning to Hawaii saves weeks of transit time.”

Lewis agreed with Willis’ assessment of the operational payoff.

“This is a huge enabler,” Lewis said. “It gives the forward-deployed operational commander flexibility in how submarines are managed. Having another location where we can safely execute maintenance makes it easier to sustain forward presence in the Indo-Pacific.”

“This is about building a network of trusted partners who can sustain undersea forces forward, at speed and at scale,” said Seif. “What was demonstrated at HMAS Stirling moves us closer to that goal and keeps AUKUS on track to support increased allied submarine presence when and where it matters.”

AUKUS moves from concept to reality

From mobile pure water production to intermediate maintenance execution, workforce qualification and local industrial integration, the 2025 submarine maintenance period showed that AUKUS Pillar I is no longer just an agreement in principle.

“This is how submarine sustainment in Australia becomes real,” Pittman said. “Through people, partnerships and proven capability.”

With the U.K. preparing to conduct its first submarine maintenance period at HMAS Stirling soon, Western Australia is no longer just a destination for visiting submarines. It is becoming a hub for trilateral undersea capability, supporting the maintenance, readiness and forward presence of allied submarines in the Indo-Pacific.