

# PRE-OWNED VIRGINIAS



IN A JOINT statement in Singapore by Australian Defence Minister Richard Marles, US Secretary of War Pete Hegseth and UK Secretary of State for Defence John Healey about the AUKUS partnership, it was announced that Australia will now acquire three used Virginia-class nuclear-powered submarines.

Previous to the 30 May announcement, the plan involved the Royal Australian Navy acquiring a mix of both new and used Virginia-class boats. The pivot is intended to “streamline” the acquisition, simplify supply chain management, operational and maintenance requirements and maximise cost efficiencies.

The change of approach will take some pressure off the US submarine building sector, which continues to struggle to meet US Navy demand for nuclear-

**ABOVE: Commissioned in 2013, the Virginia-class submarine USS Minnesota departs Darwin on 31 March 2025.**

*Image: US Navy*

powered submarines. Transferring a second-hand submarine to Australia may also be more palatable to US Congress which is highly protective of the minimum mandated number of submarines in service with the US Navy.

The current plan is that Australia will receive the first Virginia-class submarine in 2032, the second in 2035 and third in 2038, well ahead of the commissioning of the first Australian-built SSN-AUKUS submarine in the mid-2040s.

## SRF-WEST SUPPORT

It has been confirmed that key milestones continue to be met for Submarine Rotational Force - West (SRF-West) amidst the finalisation of necessary arrangements for the establishment of SRF-West in 2027.

SRF-West will directly support submarine deployments by expanding maintenance options and sustainment infrastructure in the region. It will accelerate Australia’s readiness to own, operate, maintain and regulate a sovereign conventionally-armed, nuclear-powered submarine capability. Last month, the US authorised establishment of the US Navy (USN) support elements for SRF-West and will begin rotating the first USN personnel to HMAS Stirling later this year.



**ABOVE: Preparations to expand the capabilities of HMAS Stirling remain on track.** Image: Aust DoD

UK Secretary of State for Defence John Healey reaffirmed the UK's commitment to have a rotational presence as part of SRF-West and noted the successful Submarine Maintenance Period conducted earlier this year by the visiting Royal Navy submarine HMS Anson.

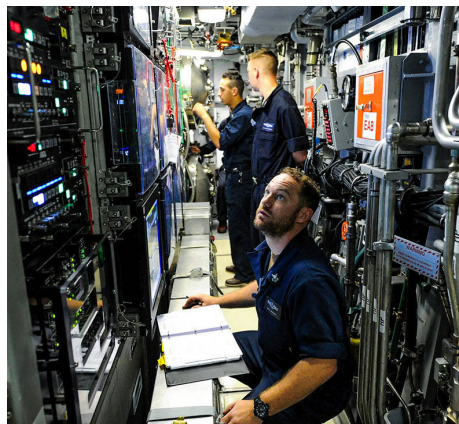
Also highlighted were Australia's planned investments of up to AUD\$8 billion at SRF-West for infrastructure and logistics support at HMAS Stirling, along with Australia's initial down payments of AUD\$3.9 billion to deliver the new Submarine Construction Yard at Osborne in South Australia and AUD\$12 billion for the Henderson Defence Precinct, including to support the delivery of contingency docking and depot level maintenance capabilities.

#### COMBAT SYSTEM PARTNER

Lockheed Martin Australia (LMA) has been selected as Australia's preferred Virginia-class submarine Combat System Integration Partner (CSIP).

LMA will work collaboratively with the Australian Submarine Agency and ASC to develop a sovereign workforce to deliver a Virginia-class combat system integration capability.

A phased plan will help Australia develop the combat systems infrastructure, technical skills, industrial partnerships and workforce needed to upkeep, update and upgrade the combat systems of Australia's conventionally armed, nuclear-powered submarine fleet. LMA



**ABOVE: LMA will act as the Combat System Integration Partner for the Virginia-class submarines earmarked to enter service with the RAN in the 2030s.** Image: US Navy

will commence the necessary uplift immediately, ensuring it is prepared to commence support to forward-deployed US Navy (USN) boats at Submarine Rotational Force - West in advance of delivery of Australia's own Virginia-class submarines from 2032 onwards.

The role of the CSIP is pivotal to the effectiveness of Australia's future Virginia-class submarines, including through the implementation and testing of combat systems improvements and supporting crews in conducting maintenance and repair on the combat system.

The Virginia-class CSIP will complement the long-standing submarine combat system Armament Co-operative Programs between the Australian and US Governments to integrate and sustain the combat capability of the submarines.

Leveraging 60 years of expertise in supporting submarine combat systems for the USN and navies worldwide, LMA will uplift a sovereign workforce through reach back and knowledge transfer of world-class practices from its US parent in the sustainment and upgrade of nuclear-powered submarine combat systems throughout all phases of the submarine life-cycle.

Lockheed Martin Australia and New Zealand's Chief Executive, Jeremy King, said that "Lockheed Martin Australia recognises the magnitude of this tri-nation endeavour. Our vision is to deliver enduring, cost-effective undersea dominance for Australia's nuclear-powered submarine fleet – achieving this through deep partnership with the Commonwealth, industry, academia, and the navies of Australia, the United Kingdom and the United States.

## AT THE HEART OF AUSTRALIA'S SUBMARINE CAPABILITY.

Bringing a depth of expertise for the nation's submarine program.





“By harnessing the full force of our sovereign and global combat systems integration experience and committing every necessary resource, we will deliver with excellence to support the realisation of Australia’s nuclear-powered submarine mission.”

LMA has steadily grown a 140-plus combat systems integration workforce that delivers advanced systems integration for the Royal Australian Navy’s (RAN) Hobart-class destroyers and future Hunter-class frigates.

**US CARRIER CONTRACT AWARD**

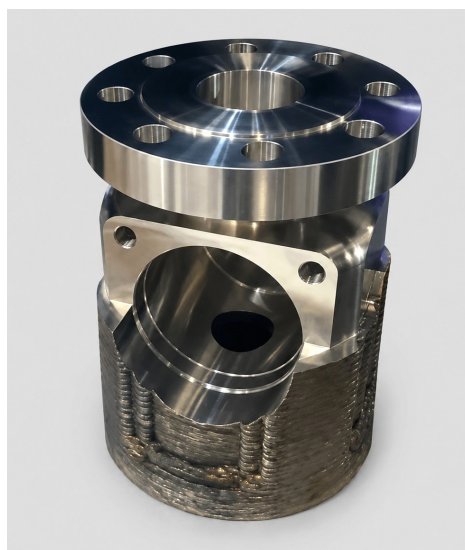
South Australia’s Century Engineering has become the first Australian business to secure export contracts into the US naval nuclear supply chain, awarded contracts by HII’s Newport News Shipbuilding to produce precision-engineered parts for US Navy aircraft carriers.

The company will begin production of the crank components within weeks, it said in a 14 May release.

It is the first time an Australian company has delivered parts into a live nuclear-powered naval program, signalling a step change in Australia’s role from prospector to participant within allied AUKUS supply chains.

“What is happening at Century Engineering is a shining example of the transformative opportunity AUKUS

**BELOW: Century Engineering is to supply precision-engineered parts for US Navy aircraft carriers.** Image: Century Engineering



presents for South Australian manufacturing,” South Australian Premier Peter Malinauskas remarked on the contract.

“Not so long ago Century was making parts for Victa lawnmowers. Now, through the opportunity provided by AUKUS, it is making parts for nuclear-powered aircraft carriers in the United States.”

Century Engineering’s success follows its qualification to US naval nuclear standards through the Australian Submarine Supplier Qualification (AUSSQ) Program. Delivered by H&B Defence on behalf of the Australian Submarine Agency, AUSSQ is designed to identify, uplift and qualify Australian businesses to meet the exacting requirements of US and UK nuclear-powered submarine enterprises, creating a direct pathway into AUKUS-aligned programs.

To date, 13 Australian companies have qualified for inclusion in the US submarine industrial base through AUSSQ and are responding to requests for quotation across priority areas including precision machining, casting and forging, and fabricated components.

In parallel, AUSSQ has expanded to support the UK’s nuclear submarine enterprise. A growing cohort of Australian businesses are now being assessed across 20 capability areas to support Royal Navy force rotations at HMAS Stirling in Western Australia from 2027, including sustainment of visiting Astute-class submarines.

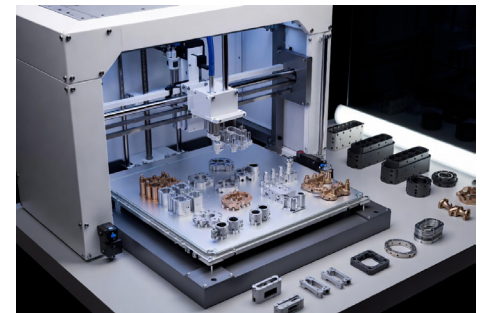
**3D SUPPORT FOR RN SUBMARINE**

QinetiQ used additive manufacturing – also known as 3D printing – to support the Submarine Maintenance Period (SMP) for the Royal Navy’s (RN) HMS Anson earlier this year.

The company revealed that it delivered 3D printed replacement parts to the submarine whilst in Australia, producing the parts in just 4 weeks. This involved QinetiQ quickly designing the required parts before many were produced locally by small to medium enterprises in Perth, others in the eastern states and by QinetiQ Australia.

While QinetiQ is a longstanding strategic partner to the UK’s Submarine

**BELOW: QinetiQ used 3D printing to manufacture replacement parts for HMS Anson whilst she was in Australia.**



Delivery Group, this is the first time that the RN has used advanced manufacturing to produce submarine components to support a routine SMP in Australia. This achievement represents a milestone on the road to enabling Submarine Rotational Force - West, a key part of AUKUS Pillar I.

Using its global presence, QinetiQ was able to reverse engineer the required parts in the UK, before securely transferring the technical data to QinetiQ Australia, which worked with local suppliers to manufacture the components.

After approval by the Submarine Delivery Group Additive Manufacturing Team, the parts were then delivered to the crew of HMS Anson who installed the components during the maintenance period at HMAS Stirling.

**SUBMARINE SUPPLY CHAIN NUMBERS CLIMB**

Lead by ASC, Australian companies are seeking involvement in the global submarine supply chain, with more than 60 businesses having now progressed through a national qualification program in support of the US Virginia-class submarine construction program.

The milestone, announced at the Indian Ocean Defence & Security Conference in Perth late last month, highlights Western Australia’s growing role in AUKUS and ASC’s work to uplift local suppliers to compete in the US submarine supply chain.

Through the Defence Industry Vendor Qualification (DIVQ) program, established by the Australian Submarine Agency in partnership with the US Government, ASC is helping Australian



industry lift its systems, processes and technical capability to meet US submarine industry requirements.

WA-based manufacturers VEEM and Camco Engineering recently attained DIVQ qualification, joining Victorian business Mackay Australia, Bale Defence from Port Macquarie in New South Wales, and HIFraser, which has operations in NSW and WA. These five companies are now eligible to compete for contracts to supply components for the nuclear-powered Virginia-class fleet.

A further 60 businesses from around Australia are currently at various stages of qualification, as they work to meet stringent engineering, quality and security standards.

Through DIVQ, ASC is working alongside US submarine builders General Dynamics Electric Boat and HII Newport News Shipbuilding to assess and certify Australian companies capable of supplying components such as mechanical assemblies, valves, pipe fittings, machined parts, electrical systems, and castings and forgings.

#### **COLLINS LOTE KICKS OFF AT OSBORNE**

The recently announced life-of-type-extension (LOTE) for the Royal Australian Navy's six Collins-class diesel-electric submarines has commenced at the Osborne Naval Shipyard, according to DefenceSA.

HMAS Farncomb will be the first vessel to be put through the LOTE, before the program is rolled out for the five remaining submarines. As one of the oldest and most heavily operated vessels, HMAS Farncomb will undergo a detailed engineering assessment to tailor its upgrades and prioritise work

**BELOW: HMAS Farncomb will be the first Collins-class submarine to be put through the LOTE. Image: Aust DoD**



packages, with this information then used to inform work required across the entire class.

The LOTE will adopt a conditions-based sustainment approach, retaining and restoring base components while upgrading critical weapons and systems, reducing risk and maximising availability. This approach is also expected to reduce engineering risk by sustaining existing systems where appropriate while continuing to upgrade critical capabilities, including weapons and combat systems.

At a cost of up to AUD\$11 billion – \$5 billion more than was previously allocated for the program – the Collins LOTE will enable the fleet to remain available for operations and viable enough from a capability perspective to conduct operations until the planned Virginia-class submarines arrive, allowing the oldest Collins-class boats to then retire.

#### **AURIZN FOR UK BATTERY PROGRAM**

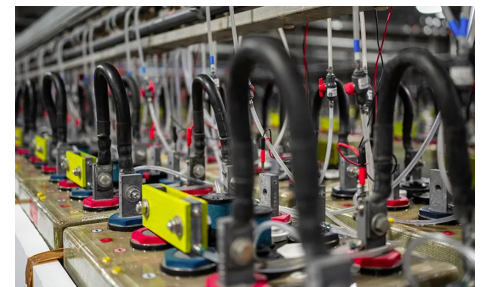
Australian defence technology innovator, Aurizn, is partnering with PMB Defence in support of the UK's nuclear submarine program.

Under the agreement, Aurizn will

provide specialist technical support for electrical battery systems, contributing to PMB's delivery of submarine battery technology. Aurizn's role focusses on providing analytical and engineering support to enhance system understanding, inform design decisions and support performance assessment, complementing PMB Defence's broader program of work and delivery of its advanced battery technology.

Rebecca Humble, chief executive officer, Aurizn said: "We are pleased to partner with PMB on this important program. This collaboration brings together the strengths of two Australian companies working to support a critical national initiative."

Mike Hartas, General Manager New Technologies, PMB Defence said: "We are proud to continue growing our supply chain for AUKUS Pillar 1 work in Australia. Aurizn offers PMB unique capabilities that significantly enhance our technology and we are pleased to have them on board". **DTR**



**ABOVE: Aurizn has partnered with PMB Defence to provide specialist technical support for electrical battery systems.**

*Image: PMB Defence*

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