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The value and challenges of AUKUS

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EXECUTIVE SUMMARY

- The AUKUS agreement is a core part of British foreign and defence policy, with benefits which will significantly advance the United Kingdom's (UK) strategic interests, both at home and overseas. However, AUKUS is not guaranteed smooth sailing, particularly given the incoming American administration is potentially sceptical of the depth of American involvement.
- His Majesty's (HM) Government will need to mitigate the risks to the AUKUS agreement. It should take actions to manage this risk and give AUKUS the best chance of success, but it would be wise also for the UK to have a Plan B for future submarine capability.
- HM Government should work with industry to ensure that there is sufficiently broad investment in the facilities, infrastructure, supply chains, and personnel needed to construct future submarines.

The AUKUS agreement was announced in September 2021 as a trilateral security pact between Australia, the United Kingdom (UK), and the United States (US).[1] At its heart, the deal seeks to enhance allied security in the Indo-Pacific as a response to rising geopolitical tensions in that region. AUKUS is a product of growing concerns around the expanding influence and military heft of the People's Republic of China (PRC), which has engaged in assertive territorial claims, particularly in the South China Sea, and has significantly increased its military expenditures – especially in the maritime domain.[2] Tackling this threat requires like-minded nations to work more closely together, collaborating on security and defence to ensure a resilient response to PRC aggression – and AUKUS represents a significant landmark of such collaboration.

AUKUS is structured around two main pillars, each with distinct objectives and components. Pillar I comprises three critical components aimed at significantly enhancing Australia's naval capabilities.[3] Firstly, the plan involves the rotational deployment of four US nuclear-powered submarines (SSNs) and one British SSN from HMAS Stirling, a port in Western Australia. This deployment is intended to boost regional security and provide Australia with valuable operational experience.

Secondly, the US will sell three to five Virginia class SSNs to Australia. These submarines are known for their advanced stealth, endurance, and versatility, and will significantly upgrade the Royal Australian Navy's capabilities. To maintain its own naval strength, the Americans will simultaneously construct three to five replacement Virginia class SSNs for the US Navy.

The third component of Pillar I involves collaborative efforts between the US, the UK, and Australia to develop and construct a new class of SSNs. This new design, a joint British-Australian effort constructed in the UK, will result in an additional three to five SSNs for Australia, completing a planned eight-boat SSN force. The Royal Navy will also procure up to 12 of these new submarines as its future SSN fleet following the Astute class, securing future submarine capabilities for British domestic, Euro-Atlantic and North Atlantic Treaty Organisation (NATO) commitments as well.

Pillar II involves advanced technology cooperation in areas such as artificial intelligence, cyber capabilities, and quantum computing.[4] By pooling their resources and expertise, the AUKUS members aim to achieve technological

[1] 'Joint Leaders' Statement on AUKUS', The White House, 15/09/2021, https://www.whitehouse.gov/ (checked: 28/11/2024).
[2] See: Emma Salisbury, 'China's PLAN: Maritime dominion beyond the South China Sea', Council on Geostrategy, 20/05/2024, https://www.geostrategy.org.uk/ (checked: 28/11/2024).
[3] Claire Mills, 'AUKUS submarine (SSN-A) programme', House of Commons Library, 07/03/2024, https://commonslibrary.parliament.uk/ (checked: 28/11/2024).
[4] Louisa Brooke-Holland, 'AUKUS pillar 2: Advanced capabilities', House of Commons Library, 02/09/2024, https://commonslibrary.parliament.uk/ (checked: 28/11/2024).

edge over the PRC and other potential adversaries, augmenting their capabilities more broadly into the future.

As well as these specific projects, the AUKUS deal also aims to build a broader strategic framework to counter threats to regional stability in the Indo-Pacific. In addition to military cooperation, there will be economic and diplomatic initiatives which are designed to strengthen and deepen ties with other regional partners such as Japan, South Korea, and the Philippines. These initiatives will fold into the ultimate goal of creating a more resilient and integrated security architecture in the region, one that is capable of responding to threats and challenges as they arise.

Historical context

The AUKUS deal is a significant marker of the UK's commitment to playing an influential and active role in building and maintaining the security of the Indo-Pacific. Despite a core focus on the Euro-Atlantic, Britain has increasingly recognised the importance of the Indo-Pacific for its own security, as shown by its 'tilt' towards the region in the 2021 Integrated Review.[5] The rise of the PRC and its increasingly assertive posture in the South China Sea cannot be ignored by the UK, and the AUKUS deal was born of the recognition that stronger security partnerships to bind the Euro-Atlantic and Indo-Pacific together will be of vital importance to British interests.[6]

The technology side of the AUKUS deal has particular benefits for the UK, both for its own military capabilities and for the domestic defence-industrial base. State-of-the-art American nuclear propulsion technology will be included in the final design of the SSN AUKUS. The British submarines will be built in the UK, providing considerable security for the future of the submarine industry – a substantial pipeline of orders for the new SSN will give British construction facilities and their supply chains work for years to come. Additional technology cooperation and collaboration born of Pillar II will further enhance the UK's military capabilities and boost innovation in a whole host of critical areas.

Diplomatically, AUKUS strengthens Britain's ties with important allies and partners in the Indo-Pacific region and further signals its commitment to contributing to the collective security architecture in an uncertain time. As well as the obvious trilateral relationship, a successful AUKUS deal is likely to be well-received by other regional states who share the trio's concerns about stability and the balance of power vis-à-vis the PRC. The agreement provides a

[5] 'The Integrated Review 2021', Cabinet Office, 16/03/2021, https://www.gov.uk/ (checked: 28/11/2024).
[6] James Rogers and Alexander Lanoszka, 'A "Crowe Memorandum" for the twenty-first century', Council on Geostrategy, 02/03/2021, https://www.geostrategy.org.uk/ (checked: 28/11/2024).

platform for the UK to strengthen its bilateral relationships with these important regional partners and to engage more deeply with regional multilateral institutions and forums, such as the Association of Southeast Asian Nations (ASEAN).

Pillar I: SSN deployment to Australia

The deployment of a Royal Navy submarine to Western Australia as part of Pillar I builds on current British activities in the region. Two River class offshore patrol vessels (OPVs), HMS Spey and HMS Tamar, are deployed in the Indo-Pacific, supporting regional partners on areas such as anti-smuggling, fishery protection and counter-terrorism operations as well as taking part in military exercises.[7] The 2021 deployment of a British carrier strike group to the Indo-Pacific will be followed by another in 2025 led by HMS Prince of Wales, which will include port visits and a series of exercises and operations.[8] British participation in regional exercises has also been strong, including a series of cross-domain multinational activities over the summer this year.[9]

Taken together, these all weave into the dual aim of deterring adversaries from aggressive practices while strengthening regional partnerships and interoperability – and the AUKUS deal deployment will do likewise. The presence of a British submarine in the Indo-Pacific supports the other deployments and adds to the strength of the broader signals being sent while offering a further opportunity to supplement intelligence-gathering and improve regional domain awareness. The strategic access to Australia that Britain will gain is also of considerable value.[10]

Being physically present in-theatre with an ally also permits the forging of closer relationships. The Royal Navy working side-by-side with the Royal Australian Navy in support of this part of the AUKUS deal gives both sides the opportunity to deepen ties, share best practice, and learn how to work together more effectively. As US submarines will also be rotationally deployed, the Royal Navy will be able to deepen ties with American colleagues as well. Depending on where the British submarine is tasked and what exercises it takes part in, this benefit could also be extended to other regional partners. Allied forces need to be able to cooperate as seamlessly as possible in times of crisis – and proving they can do so enhances deterrence.

[7] 'Pacific patrol ships begin third year deployed broadening their mission', Royal Navy, 12/09/2023, https://www.royalnavy.mod.uk/ (checked: 28/11/2024).
[8] Lisa West, 'Government confirm UK carrier strike group heading to Pacific', *UK Defence Journal*, 20/08/2024, https://ukdefencejournal.org.uk/ (checked: 28/11/2024).
[9] 'UK shows commitment to Indo-Pacific following major exercises', Ministry of Defence, 09/08/2024, https://www.gov.uk/ (checked: 28/11/2024).
[10] Jennifer Parker, 'No gift: Indo-Pacific access is worth its weight in gold', *Britain's World*, 09/05/2024, https://www.geostrategy.org.uk/ (checked: 28/11/2024).

Recommendation:

Ensure that the Royal Navy makes the most of the opportunities offered by the rotational SSN deployment to forge stronger ties with Australia and other regional allies and partners.

Pillar I: Sale of Virginia class SSNs

A central focus of Pillar I is providing Australia with a fleet of nuclear-powered submarines, marking a significant departure from the Royal Australian Navy's previous reliance on conventional diesel-electric submarines. These new submarines – based on advanced American and British technology – will enable Australia to boost its maritime capabilities. Nuclear-powered submarines offer several advantages, including greater range, endurance, and stealth – all critical for effective deterrence and power projection in the vast Indo-Pacific seas. The decision to supply Australia with such submarines underscores the deep level of trust and cooperation among the AUKUS members, as it involves sharing sensitive nuclear propulsion technology which has previously been restricted only to the UK.

The American provision of nuclear-powered submarines to Australia significantly enhances the deterrent capabilities of the UK and its allies in the Indo-Pacific region. These submarines are stealthier and have greater endurance compared to conventional diesel-electric submarines, making them a formidable asset against potential adversaries, such as the PRC. The deployment of nuclear-powered submarines in the Indo-Pacific will provide a sustained and formidable naval presence.

The gap in Australian capability, before the completion of the design and construction of a new SSN AUKUS class, will be filled by the sale of three to five Virginia class SSNs by the US to Australia. This requires significant resources, including technology transfer, training, and support, which could strain the US Navy's resources and potentially divert attention from other critical programmes and initiatives.

A particular problem will be whether the American submarine industrial base can cope with ramping up to the production rate needed to fulfil these commitments. Since 2022, American submarine construction capabilities have been limited to 1.2 to 1.4 Virginia class boats per year, due to shipyard and supplier firm workforce and supply chain challenges, but it will need to increase to 2.33 boats a year to meet both the US Navy's needs and the AUKUS

commitments.[11] While the Biden administration offered some promising investment and there is bipartisan support for boosting the sector, it remains unclear whether the deep structural problems in the American submarine industrial base can be ameliorated quickly enough to fit in with the AUKUS timeline.[12]

The outcome of the US elections may also undermine the future of this part of Pillar I. The incoming Trump administration may consider either renegotiating or pulling out of the deal if it does not believe it to be in America's interests. If there is a substantial constituency within the White House and Congress around an 'America First' approach in particular, the pressure that the Virginia sales will place on the American industrial base may be seen as an unnecessary burden at a time when the US Navy requires substantial investment of its own. If the US is going to build more Virginia-class SSNs, it may prefer to keep all of them for itself.

Should this part of the deal fall victim to a renegotiation, the question for the UK will be whether it is worth fighting to keep it. The sale of the Virginia class boats is intended to augment Australian capability in the period before the construction and deployment of the new SSN AUKUS class, but the latter is not contingent upon those sales. As long as the new SSN development process can proceed, it may be possible to sacrifice this part of the deal, should the need arise.

Recommendation:

Build and maintain strong lines of communication between the UK and the incoming US administration to ensure that any issues with the Virginia class SSN sale can be dealt with swiftly.

Pillar I: SSN-AUKUS

The development and construction of the new SSN AUKUS boats is a core part of the AUKUS agreement, as both the Royal Navy and the Royal Australian Navy will procure and operate them. This means that the success of this part of the deal will directly affect the future fleets of both the UK and Australia. Both will need next-generation SSNs, but it is unclear what would happen for either navy should the deal fall through.

Britain cannot afford to be left without a future SSN fleet. The Royal Navy's SSNs provide a vital capability for national defence and there should be a concrete

[11] Ronald O'Rourke, 'Navy Virginia-Class Submarine Program and AUKUS Submarine (Pillar 1) Project: Background and Issues for Congress', Congressional Research Service (US), 05/08/2024, https://crsreports.congress.gov/ (checked: 28/11/2024).
[12] For a deeper exploration of these problems, see: Emma Salisbury, 'The Sinking Submarine Industrial Base', *War on the Rocks*, 26/10/2023, https://warontherocks.com/ (checked: 28/11/2024).

plan for the future replacement of the Astute class that is currently in service. While the SSN AUKUS design will be the optimal path forward, the UK needs to manage the risk of the deal not coming to fruition. There should, therefore, be a design process for a new SSN that could be procured without the AUKUS agreement – one which does not include the various technologies that the US would share as part of the deal. This 'Plan B' SSN could be built in Britain and sold to both the Royal Navy and the Royal Australian Navy, keeping the benefits of the SSN AUKUS for the UK and Australia if the original plan falls through.

If the design and procurement process goes smoothly, the construction of the new SSN-AUKUS boats in the UK offers a golden opportunity for the British defence-industrial base to further invest in submarine manufacturing and bolster the long-term future of the sector, with considerable spill-over effects for the local economies and communities around the construction facility sites.[13] This will ultimately depend, however, on the commitment of both industry and government to make the most of this opportunity by investing in both the facilities themselves and the other things needed for success – such as solid local infrastructure, secure supply chains, and a pipeline of qualified personnel. This requires continued dialogue between all stakeholders and shared recognition of the vital importance of the deal for military, economic, and strategic reasons.

Recommendations:

Ensure that there is a 'Plan B' SSN design that can be built in the UK should the AUKUS design fall through.

Work across government and industry to ensure that there is sufficiently broad investment in the facilities, infrastructure, supply chains, and personnel needed to construct future submarines in the UK.

Pillar II: Advanced technology cooperation

Pillar II of AUKUS focuses on cooperation in advanced technologies such as artificial intelligence, cyber capabilities, and quantum computing. This collaboration ensures that the Royal Navy remains at the cutting edge of technological advancements, maintaining a strategic advantage over potential adversaries. This is a vital effort – an assessment last year by the Australian

[13] 'UK firm appointed to build Australian AUKUS submarines', Ministry of Defence, 21/03/2024, https://www.gov.uk/ (checked: 28/11/2024).

Strategic Policy Institute showed that the PRC is ahead of the US, the UK and their allies in 19 of the 23 technology areas relevant to AUKUS Pillar II.[14]

Collaborating on research and development with the US and Australia is more valuable than going it alone because it allows for cost-sharing and reduces the financial burden on any single nation. This can accelerate the development and deployment of cutting-edge technologies, benefiting all parties involved. Leveraging these advanced technologies can act as a force multiplier, enabling the Royal Navy to achieve greater operational efficiency and effectiveness while augmenting maritime capabilities.

However, coordinating joint research and development efforts among three countries with different defence industries, regulatory environments, and strategic priorities will be complex. The US tends to focus on protecting its intellectual property and securing its own supply, while the UK and Australia are more open to defence-industrial integration and are wary of the excessive amount of classification within the American system – indeed, both have already raised concerns about US information sharing and export controls, particularly around the famously bureaucratic Foreign Military Sales process and International Traffic in Arms Regulations.[15] Ensuring smooth joint working and aligning goals will require significant time and effort.

Sharing and collaborating on advanced technologies raises considerable issues related to intellectual property rights and information deemed sensitive to national security. Protecting such sensitive information and ensuring the fair distribution of rights to technological benefits may be contentious and legally complex. There will be specific issues around different technologies, varying between projects, so there will need to be a case-by-case approach to resolving problems as they arise as well as broader efforts to create a better environment for the sharing of knowledge. While this will be difficult, Pillar II provides a golden opportunity to get this right – with potential future benefits for other projects down the road.

Recommendations:

Work comprehensively with AUKUS counterparts to align research and development efforts and structures to smooth out snags as early as possible.

[14] Australian Strategic Policy Institute, 'AUKUS Relevant Technologies: Top 10 country snapshot', June 2023, https://ad-aspi.s3.ap-southeast-2.amazonaws.com/ (checked: 28/11/2024).
[15] John Christianson, Sean Monaghan, and Di Cooke, 'AUKUS Pillar Two: Advancing the Capabilities of the United States, United Kingdom, and Australia', Centre for Strategic and International Studies, 10/07/2023, https://www.csis.org/ (checked: 28/11/2024).

Ensure a solid process for the discussion and rectification, specifically of issues around the sharing of sensitive information and rights between the three partners.

Conclusion

The benefits of the AUKUS agreement are clear: it offers the UK an enhanced deterrence posture, a strengthened alliance framework, and a significant technological edge. However, realising these benefits is contingent upon the effective management of several complex challenges and a great deal of risk over a prolonged period of time, subject to the potentially changing preferences of different governments in all three countries.

The incoming Trump administration, supported by a heavily Republican Congress, may look to pull out of or renegotiate the AUKUS agreement, particularly if it is no longer felt to be in US interests. However, the bipartisan consensus on countering the PRC's rise, shared strategic interests with Australia and the UK, and the benefits of the deepening of military and technological cooperation might outweigh any isolationist tendencies which come to the fore. Moreover, a sudden withdrawal could damage alliances and US credibility in the Indo-Pacific, something which will still be advantageous to avoid. Even if the new administration heralds a turn away from guaranteeing security in the Euro-Atlantic, the US will still need to deal with the PRC and will be less likely to want to undermine ties with partners in the Indo-Pacific.

Elbridge Colby, who was a senior defence official in the first Trump administration, gave his view in a recent social media post:

> AUKUS is a great example. In principle it's a great idea. But I've been very skeptical in practice. I remain skeptical - agnostic as I put it to @smh [The Sydney Morning Herald] – but more inclined based on new information I've gleaned. It would be crazy to have fewer SSNs in the right place and time. But if AUKUS can help us get more in the right place and time, then great. That's an empirical and concrete question – not a philosophical one.[16]

This sums up what is likely to be the prevailing view in the incoming Republican administration – while the AUKUS deal will not be on the chopping block immediately, senior figures will need to be convinced of its utility for the US.

[16] Elbridge Colby, Post on X, 08/08/2024, https://x.com/ (checked 28/11/2024).

While the multinational context of the deal does mean that there is a lot that is out of the UK's control, there are several steps which HM Government could take to ameliorate these risks and give the best chance of a successful outcome to the AUKUS partnership:

- Ensure that the Royal Navy makes the most of the opportunities offered by the rotational SSN deployment to forge stronger ties with Australia and other regional allies and partners;
- Build and maintain strong lines of communication between Britain and the incoming American administration to ensure that any issues with the Virginia-class SSN sale can be dealt with swiftly;
- Guarantee that there is a 'Plan B' SSN design which can be built in the UK should the AUKUS design fall through;
- Work across government and industry to ensure that there is sufficiently broad investment in the facilities, infrastructure, supply chains, and personnel needed to construct future submarines in the UK;
- Cooperate comprehensively with AUKUS counterparts to align research and development efforts and structures to smooth out snags as early as possible;
- Establish a solid process for the discussion and rectification, specifically of issues around the sharing of sensitive information and rights between the three partners.

Overall, the UK should leverage its historically close relationship with the US to ensure that the case is made for AUKUS to those in the American political class who are sceptical. This will be a long-term effort and may require considerable political capital. Ultimately, however, despite the risks and the work needed to address them properly, the broad strategic value of AUKUS for the UK means that the effort is worth it.

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