

AUKUS: Below the Surface

The newly formed AUKUS partnership, a trilateral defense technology arrangement bringing together the US, the UK, and Australia, signals a shift in Washington's regional posture. It seeks to close ranks with important allies, particularly vis-à-vis China, and illustrates the subordination of non-proliferation and diplomatic concerns to strategic utility.

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In September 2021, Australia, the UK, and the US announced the creation of a trilateral security partnership named AUKUS. The new format is intended to strengthen defense cooperation between the three nations in four areas – artificial intelligence (AI) as well as cyber, quantum, and under-sea technologies – and will include the development of an Australian fleet of nuclear-powered submarines (SSN) through the transfer of US or British technology. The implications of this new partnership are significant in a number of ways, if uncertain.

First, AUKUS signals a clear recognition by all three states that Chinese actions pose a systemic and military challenge to their interests and the existing regional and global security order; a challenge the agreement seeks to counter. It also cements the US' strategic repositioning toward the Asia-Pacific. Second, the sharing of nuclear naval propulsion technology is a departure from practices in the defense and civil nuclear industry based on non-proliferation norms and the preservation of strategic capabilities. The only other prior case was the US' transfer to the UK in 1958, although this was much broader in scope to include cooperation on Britain's nuclear weapons program. Third, AUKUS furthers a deeper trend of shifting power dynamics,



In May 2020, the Royal Australian Navy teamed up with the US Navy to conduct combined exercises in the South China Sea. *Reuters*

increasingly dividing the region between a US-led and a Chinese-led order. It creates additional pressure for states from the Asia-Pacific and for those with an interest in the region, notably Europeans, to take sides when many do not want to define China as a threat and prefer to leave the door open for cooperation with Beijing.

An initial analysis of the military and proliferation implications of the partnership as well as its impact in both the Asia-Pacific and Europe provides an understanding of

some of the broader strategic trends at play in the region, the risks they heighten, and the opportunities they create.

Framing AUKUS

At its core, AUKUS is a partnership focused on defense cooperation, technology sharing, and increasing military interoperability. It is not an alliance, as the US already has alliance relationships with Australia through the ANZUS treaty and with the UK through the US-UK Mutual Defense Agreement and NATO. The UK and

Australia have an established bilateral partnership and all three countries are part of the Five Eyes intelligence framework. In addition, the partnership does not revolve around a single document but rather a collection of agreements and announcements. AUKUS therefore sits between a formal alliance and a multidimensional arms agreement. Whether it becomes a more institutionalized mechanism, a flexible but low profile “minilateral”, or an agreement entirely focused on technology will depend on how Canberra, London, and Washington deal with two major challenges over time.

First, AUKUS will need to engage with other alliances and partnerships in the region and beyond, as well as with its adversaries. Given how its announcement propelled a diplomatic crisis with France – an ally of both the US and the UK whose 66 billion USD contract for diesel-electric

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submarines sunk as a result – AUKUS is not particularly off to an auspicious start. The three states also need to address regional fears that AUKUS will exacerbate arms race dynamics in the region and create further instability, beyond pointing fingers at China.

Second, Australia's SSN program, its largest and most complex defense undertaking to date, has neither straightforward nor timely solutions. It will need to withstand parliamentary scrutiny and numerous election cycles. The partner governments are currently exploring the SSN program's many parameters during an initial consultation period expected to last until at least March 2023.

Military-Strategic Promise

While the Royal Australian Navy (RAN) will likely only receive operational SSNs by the 2040s, they constitute but one element of the AUKUS announcements. As a result, it is worth zooming out onto the regional-strategic level. For the United States, military compatibility and interoperability are key priorities for their Pacific alliance structure, which requires allied troops to integrate seamlessly with US formations. This starts with similar equipment and logistical needs but extends to the ability to operate jointly regarding tactics and procedures. Comparable priorities are part

of the US' European defense efforts through NATO, but in the Asia-Pacific, necessary competencies have a more maritime and aerial bend.

As such, the three AUKUS partners' platforms necessary for fighting over the Pacific Ocean's vast distances are already alike. This is especially pronounced in respective aerial forces, where, for example, similar or identical platforms serve as airborne early warning systems, maritime patrol aircraft, and multipurpose fighters. This commonality allows the US to fuse their networks of sensors and weapons systems with their close military allies across the region.

AUKUS' pronouncements have revolved around four further technology clusters it seeks to develop jointly for strategic and military applications. AI, in this case, ranges from improved planning and battle management systems to improved or even automatized intelligence collection and analysis. Autonomous unmanned military platforms that may be deployed in the near-term future also depend on advances in this field.

The plan includes leveraging emerging quantum technologies for similar purposes, as well. Furthermore, networked warfare over vast distances requires secure communications. Accordingly, cyber capabilities are also on AUKUS' list. This likely includes, in an offensive sense, the ability to disrupt the enemy's command and control arrangements as well as, defensively, the need to protect civilian infrastructures and economic actors. Lastly, the signatories intend to invest in the development of unmanned underwater vehicles (UUVs), which will constitute important elements of future undersea warfare by allowing to distribute sensors and weapons systems across more numerous platforms.

Due to the SSNs' extended timeline, these technology clusters may provide more utility in military-strategic terms in the nearer future than the submarines. Both military and political rationales led to a cancellation of the contract with France on diesel-electric submarines in favor of a nuclear-powered platform. The great advantage of nuclear propulsion lies in its endurance and speed, and, thus, operational range. Here the US' scenarios for a conflict with China come to the fore. Nuclear submarines would permit the Australian subsurface fleet to push up further north and to combat the People's Liberation Army Navy closer to Chinese shores. Diesel-electric

submarines, by contrast, would be much more tactically suited to operate closer to Australia itself and thus provide less utility to the Pentagon's force posture.

However, as of now, it is unclear what submarine class the RAN can expect to commission into service, as there is no obvious option. While the British Astute class may make sense thanks to lower cost and crewing requirements, the US Navy's Virginia class allows more payload and is impelled by a more modern reactor. As a result, Canberra faces a difficult trade-off: While it is already straining to crew its Collins-class legacy fleet, Virginia platforms could be advantageous in terms of longevity, especially as they are able to link up with UUVs. However, at present, neither the US nor the UK possess the industrial capacity to simply manufacture additional submarines for the RAN to fill the 20-year gap until the next generation of boats becomes operational. This is also due to the fact that renewing either navy's fleet of strategic submarines (i.e. those carrying nuclear-armed missiles) will take priority.

The challenges do not stop there, though. Training officers and crews will be a considerable task and require significant support from Australia's partners. The nuclear reactors and related competencies and infrastructures further complicate Canberra's plans. In addition, the nuclear submarine deal risks puncturing nuclear non-proliferation norms by openly exploiting a loophole in the safeguards regime of the Non-Proliferation Treaty (NPT).

Proliferation Concerns

While the development of naval nuclear propulsion and nuclear weapons are two very distinct endeavors, they both require fissile material. For that reason, only nuclear weapon-possessing states operate nuclear naval reactors so far. Non-nuclear weapon states are legally able to develop nuclear-powered ships. Therefore, nuclear safeguards agreements concluded with the International Atomic Energy Agency (IAEA) allow for nuclear material to be taken out of safeguards for a “non-proscribed military activity” such as naval reactors. This loophole stems from the difficulty for the IAEA to monitor nuclear material used in submarines and the desire of non-nuclear weapon states to ensure the widest access to nuclear activities bar weapons. This exemption remains yet unused but has long been debated within the NPT given the obvious proliferation risks it creates.

The US has made it clear that sharing this technology with Australia is an exception and contingent on Australia's excellent non-proliferation record and commitments. Canberra is an active participant in the NPT regime, taking part in several additional multilateral initiatives promoting transparency, as well as a party to all the major export control mechanisms, nuclear safety and security agreements, and non-proliferation treaties. This includes the Treaty of Rarotonga that establishes a nuclear weapon-free zone in the South Pacific. Since Australia is not planning to develop uranium enrichment capabilities and would most likely receive loaded and sealed reactors – making the diversion of nuclear material impossible – the proliferation risk would be near-zero. The main problem is the precedent this sets within the NPT regime, one which other states could take advantage of in the future either in terms of supply or to justify domestic enrichment programs. Ensuring states' compliance with their safeguards agreements relies on a political rather than legal process within the IAEA. Accordingly, such a precedent would make it more difficult to enforce compliance through sanctions in suspected proliferation cases. It could also lead to double standards, which states such as Russia and China already believe the US and its allies practice.

While France and China power their nuclear submarines with low-enriched uranium (LEU), India, Russia, the UK, and the US use highly enriched uranium (HEU). The continued use of HEU globally is a proliferation concern that the US has tried to mitigate in the context of research reactors. However, Washington has refused to endorse such a change in the case of submarines on the basis that converting its naval reactors to LEU would be too costly, reinforcing yet another double standard. HEU will likely be the fuel of choice for Australia's submarines and would probably be provided by the US, which still has a stockpile. Providing a rationale for HEU use in non-nuclear weapon states is contentious, especially considering a lack of progress on negotiating a Fissile Material Cut-off Treaty.

AUKUS also offers opportunities to address these non-proliferation concerns by bringing the dormant IAEA safeguards loophole issues back to the forefront. Given Australia's excellent non-proliferation credentials, it could push for establishing a

strict model including conditions non-nuclear weapon states should fulfill when acquiring nuclear propulsion technology. Several experts have suggested the conclusion of an additional protocol to a safeguards agreement, being in full compliance with safeguards for a minimum number of years, and the external provision of nuclear fuel, among others. Since Australia already ticks most boxes, this could be perceived as a case of re-writing the rules for one's own benefit. Therefore, AUKUS could go a step further and explore non-intrusive safeguards with the IAEA, proposals for which already exist and could be developed in an inclusive manner.

Alliances vs Partnerships

Proliferation concerns are one of two main rationales that Beijing has used to condemn AUKUS; the other being the partnership's threat to regional stability and return to a "Cold War mentality". Both narratives build on existing apprehensions expressed by the Association of Southeast Asian Nations (ASEAN) states regarding AUKUS. China's recent announcement that it is willing to sign the protocol of the Bangkok Treaty (the agreement establishing a Southeast Asian Nuclear-Weapon-Free-Zone) independently of other nuclear weapon states is one way of courting ASEAN states, for which disarmament remains a key foreign policy goal. It also helps to gather support from states that are wary of the precedent created by the US transfer of

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nuclear propulsion technology to Australia, while conveniently diverting attention from China's own nuclear buildup.

AUKUS' announcement feeds into Southeast Asian states' fears that the partnership contradicts inclusive regional approaches and creates a tiered alliance system. US-aligned local players, such as Singapore, may be disaffected by AUKUS codifying a hierarchy of Washington's allies and partners through AUKUS, implying that the US would always choose Australia's side during potential disagreements. Even US-leaning governments may be uncomfortable with AUKUS' implied binary choice where relations become increasingly securitized and militarized. Some may prefer more ambiguity in their relations with the

Further Reading

James M. Acton, "Why the AUKUS Submarine Deal is Bad for Nonproliferation—And what to Do about it," *Carnegie Endowment for International Peace*, 21.09.2021.

Tanya Ogilvie-White / John Gower, "A Deeper Dive Into AUKUS. Risks and Benefits for the Asia-Pacific," *Asia-Pacific Leadership Network for Nuclear Non-Proliferation and Disarmament*, 05.10.2021.

Andrew Nicholls / Jackson Dowie / Marcus Hellyer, "Implementing Australia's Nuclear Submarine Program," *Australian Strategic Policy Institute*, 14.12.2021.

US and China and resent Washington's pressure to choose a side. Japan and South Korea's more muted welcoming of the announcement also reflects uncertainty about opportunities for cooperation with the AUKUS format. The "one-off" framing regarding the sharing of naval propulsion technology with Australia is vexing Seoul. In the past, the US has refused to support its ambitions to develop an SSN program, due to South Korea's more problematic proliferation record.

Finally, Australia bears a disproportionate amount of the risks the partnership entails for the region's future. Entrenching its partnership with the US with explicit military connotations is a gamble. Washington's stance on the Asia-Pacific and Australia's role in it may not remain static, and neither is the notion that the US would end up winning a potential military conflict with China. However, this gamble may be worth it as Australia's positioning in the region, by its geographic location, will always be more threatened than the US or UK, with or without AUKUS.

Transatlantic Fission?

For Europe, the key question becomes whether AUKUS is a symptom or a driver of the US' prioritizing the Asia-Pacific. At present, it appears to be both: Washington's desire to focus on its western approaches dates back to the early days of the George W. Bush presidency, with China moving from being considered a rival to an adversary in the meantime. A secondary question in European capitals is whether the way AUKUS was announced at the expense of France's submarine deal was down to diplomatic impropriety or a callous disregard for continental interests more broadly. Additionally, the AUKUS launch

completely overshadowed the unveiling of the EU's own Indo-Pacific strategy, further sidelining Europeans even when they seek involvement in the region. Similar to ASEAN concerns, AUKUS' focus on hard power also sits uncomfortably with some European states that would prefer to maintain a level of ambiguity in the relations with China.

Moreover, the announcement occurring four weeks after the fall of Kabul provided ammunition to advocates of increased European autonomy in the face of US aban-

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donment. However, events in 2022 have proven that this interpretation is somewhat simplified, at least for the moment. In the run-up to and during Russia's full-scale invasion of Ukraine, the US is clearly taking Eastern NATO members' fears seriously, despite its obvious preference of the Asia-Pacific. France has no continental partner with which it can substitute US (and even British) logistical and operational support to project power and substantially engage in stabilization operations upwards of a certain scale in Sub-Saharan

Africa. While diplomatic relations did freeze in the wake of the AUKUS announcement, neither side seems willing to endanger ties in the long-term.

Outlook

The partnership's broader regional impact is, as of now, rather uncertain. Assessing these concrete implications of AUKUS will likely only be possible once various questions pertaining to the scope and intensity of future cooperation have been answered – and by the future success or failure of the trilateral submarine program. Some indications on how this path may look like can be expected in early 2023 after the initial consultative process. The lion's share of the risk falls on Australia, which has chosen to potentially sacrifice its individual defense capacity in favor of collective capability. Even without the benefits of AUKUS accruing, Canberra may face more difficult circumstances on the political level, particularly in its relations with ASEAN countries.

On the non-proliferation front, AUKUS appears to be a symptom of a shift in US attitude. Given the perceived military threats posed by both China and Russia, established norms that may have driven previous efforts, notably under US leader-

ship, give way to a more selective application in a period of declared great power competition. As the only nuclear supplier to take advantage of the NPT loophole, the US' transfer of such a sensitive technology is illustrative of the difficulty to reconcile new requirements for deterrence, crisis stability, and non-proliferation, with the latter being deprioritized in the short term to enable the other two. The impact on Beijing presents a final variable that, as of now, is hard to quantify in relation to AUKUS and the wider US shift to a more securitized and militarized regional posture. Whether this sea change will hinder Chinese influence or enable it by opening political space that can be exploited remains to be seen.

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