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AUKUS: A Year On
Opening Address

A paper based on a seminar presentation to the Institute in Sydney on 23 November 2022 by

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The AUKUS agreement is best seen as a reflection of accelerating complexity in Australia's strategic environment and as a component in the package of responses addressing it.

Key words: strategic environment; strategic direction; defence strategy; grey-zone activities; space; submarines; innovation; technological integration.

I acknowledge the Gadigal, Traditional Owners of the land on which we gather, and pay my respects to their Elders past, present, and emerging. I extend that respect, too, to all First Nations people serving in the Australian Defence Force, past, present, and future.

As Patron of the Royal United Services Institute for Defence and Security Studies, New South Wales, I am delighted to open this major seminar on 'AUKUS - A Year On'.

The announcement last September of the trilateral AUKUS partnership between Australia, the United Kingdom, and the United States was an historic moment, one that drew considerable international attention and debate. The significance of the agreement for Australia, with the partnership's explicit focus on 'promoting security and prosperity'[1] in our immediate region, the Indo-Pacific, and the 'profound strategic shifts'[2] it might be seen as manifesting, is undoubted.

Of equal significance, however, is the grounding of that agreement in the collaborative sharing of technology, a transformative articulation of Australia's relations with the UK and the US, our oldest and largest allies respectively. In the words of Sir Stephen Lovegrove, National Security Adviser to the United Kingdom, AUKUS represents 'perhaps the most significant capability collaboration in the world anywhere in the past six decades'.[3] Despite much of the focus of media attention – it is a collaboration far beyond the acquisition of submarines.

It is undoubted that change is the new paradigm. Navigating this 'new normal' is one of the great challenges of our time and brings with it complexities not previously encountered in terms of the speed of change, a rapidly developing geopolitical outlook, economic implications, and technological innovations of both, a peaceful and warlike nature. Complex problems require complex solutions. The AUKUS agreement is best seen in this light, as a reflection of accelerating complexity in our strategic environment and as a component in the package of responses addressing it.

In terms of specific challenges driving the strategic complexity of our region – which has been characterised as 'the most consequential strategic realignment since World War II'[4] – the Australian Government's 2020 Defence Strategic Update points, amongst other things, to the interrelated challenges of:

- the economic and strategic consequences of the COVID-19 pandemic, climate change, and natural disasters;
- challenges to the stability of the rules-based global order, particularly through grey-zone activities;
- the pace of military modernisation and emergent disruptive technologies diminishing Australia's technological edge as impacting our future defence strategy.

Many of these drivers were noted in the 2016 Defence White Paper; however, some have accelerated in ways that were not anticipated in 2016. As such, and alarmingly, this has compressed the previously assumed 10-year strategic warning time to 5. In short, it was recognised that the pace of change required a change of pace in preparedness.

The planning response to these challenges is articulated through three broad strategic aims: to shape Australia's strategic environment, to deter actions against Australia's interests, and to respond with credible force if required. Key mechanisms of implementation include:

- an emphasis on the immediate region as geographic focus, both, operationally and through regional defence diplomacy and cooperation;
- increased self-reliance for delivering deterrent effects;
- expanded and enhanced capabilities;
- an increased capacity both in Australia and the region to support civilian authorities in the face of natural disasters.

AUKUS, in the broader sense to which I have referred forms part of that strategy. The extent to which it is integral to that strategy calls for a clear understanding not only of policy objectives, but also of its place in Australia's accelerated sovereign capabilities. This raises a number of questions which are undoubtedly at the forefront of your thinking on these issues, but will include: what transformations are required to best support the AUKUS strategy and what are the broader ramifications and opportunities for our economic development and security?

Given the attention, at the time of the announcement,

on Australia's relationship with France and, more particularly, the angst caused by terminating the submarine contract with the French company the Naval Group, little informed media attention has been given to the long-term strategic focus of AUKUS as an embedded component of Australia's engagement with our immediate region.

In their joint media statement on 16 September 2021, the Prime Minister, Minster for Defence, and Minister for Foreign Affairs and Minister for Women stated: 'AUKUS will complement Australia's network of strategic partnerships, including with our ASEAN friends, our Pacific family, our Five Eyes partners, the Quad and other like-minded partners.'[5]

This strategic direction was confirmed by the present Government when Australia's Minister for Foreign Affairs, Senator Penny Wong, said in Singapore recently: 'We believe that Australia must find its security *in* Asia, not *from* Asia. And that means, above all, in Southeast Asia.'[6] The basis of that security, as every official Defence paper states and every informed commentary acknowledges, is through respect for sovereignty and rules-based collaboration.

Having said that, and as is well understood by everyone here, it is the advanced capabilities pillar that will have impact in the immediate and medium-term future and which will address the compressed strategic warning time highlighted in the 2020 Defence Strategic Update.

The advanced capabilities pillar initially focused on four areas: cyber capabilities, artificial intelligence, quantum technologies, and additional undersea capabilities; that has since expanded to include hypersonic and counter-hypersonic capabilities, electronic warfare, innovation, and information sharing.[7] The fact that there has been expanded focus since the announcement of AUKUS just over 12 months ago is itself an indication of the rate and pace of change to meet challenges as they arise.

From another perspective, the potential for Australia's science, technology, and defence industry ecosystem cannot be underestimated. The opportunities implicit in the AUKUS agreement will not only enhance the provisioning of our Defence Force with fit-for-purpose capability, but also have an undoubted flow-on effect stimulating a new generation of research and technological innovation.

This is exciting; but it is important that it is not only an opportunity but becomes reality as the infrastructure and organisational transformations required to best support such endeavours are considered, identified, and implemented. Having said that, we cannot ignore the potential elephant in the room – or perhaps at the moment it is a sleeping giant – and that is the development of nuclear technologies more generally. That is not only an issue for Defence, but it is a broader question as alternate sources of energy are debated around the world and as nuclear energy has gone into and out of favour.

What can be said, however, is that any discussion of AUKUS in terms of advanced capabilities technologies, innovation, and research, must not be seen in isolation from other initiatives in Defence planning. In this regard, I note the release in August – perhaps timely given the recent spate of domestic cyberattacks – of the Defence Cyber Security Strategy and the 2022 Defence Information and Communications Technology Strategy.[8]

Innovation within Defence now extends beyond the traditional four domains of Maritime, Land, Air, and Cyber into Space. Australia's Defence Space Strategy was released this year, along with the formation of the tri-service Defence Space Command in January, led by Air Vice Marshal Catherine Roberts.

By bringing members of the Navy, Army, Air Force, and Australian Public Service together under an integrated headquarters reporting to the Chief of Air Force, we have witnessed the technological integration between Defence, Government, and corporate spheres.

Issues of national Defence and security are neither abstract nor peripheral; they are of immediate and long-term consequence. As such, I commend RUSI NSW for providing, as it has so often over the last 134 years, a forum for informed debate on Australia's defence and national security, which has contributed significantly to improved public understanding and awareness.

I thank the Vice Patrons from all three Services for the important insights their Updates will provide into activities over the last year within their spheres of responsibility and look forward to hearing them shortly.

Thank you too to the academics and industry experts who will also be speaking. Your considered and informed presentations will undoubtedly prove both illuminating and thought-provoking.

It is now my privilege, as Patron of the Royal United Services Institute for Defence and Security Studies NSW, to declare this year's 2022 major Seminar 'AUKUS – A Year On' formally open.

References

[1]Prime Minister, the Hon. Scott Morrison MP; Minister for Defence, the Hon. Peter Dutton; Minister for Foreign Affairs and Minister for Women, Senator the Hon. Marise Payne, 'Joint media statement: Australia to pursue nuclear-powered submarines through new trilateral enhanced security partnership', 16 September 2021.

[2]Sir Stephen Lovegrove, National Security Adviser to the United Kingdom, quoted in BBC News, 'AUKUS: US and UK face backlash over Australia defence deal'.

[3]Sir Stephen Lovegrove, National Security Adviser to the United Kingdom, quoted in BBC News, 'AUKUS: US and UK face backlash over Australia defence deal'.

[4]Department of Defence, '2020 Defence Strategic Update Factsheet'.

[5]Prime Minister, the Hon. Scott Morrison MP; Minister for Defence, the Hon. Peter Dutton; Minister for Foreign Affairs and Minister for Women, Senator the Hon. Marise Payne, 'Joint media statement: Australia to pursue nuclear-powered submarines through new trilateral enhanced security partnership', 16 September 2021.

[6]Senator the Honourable Penny Wong: 'Special lecture to the International Institute for Strategic Studies - A shared future: Australia, ASEAN and Southeast Asia,' 6 July 2022.

[7]The White House, 'Fact Sheet: Implementation of the Australian – United Kingdom – United States Partnership (AUKUS)'.

[8]Released concurrently on 31 August 2022 by the Hon Matt Thistlethwaite, Assistant Minister for Defence and Assistant Minister for Veterans' Affairs.

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AUKUS: A Year On

What to make of AUKUS after 365 days?

A presentation to the Institute in Sydney on 23 November 2022 by

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One year on, while AUKUS is not yet a game-changer, it is now clear that America is prepared to trust Australia with its most protected defence industrial secrets. The technologies developed under AUKUS Pillar II, like artificial intelligence, will be more critical, particularly in the medium term, than the submarines developed under AUKUS Pillar I. Regardless, legal, policy and regulatory hurdles to co-operation between Australia and America remain, especially the U.S. International Traffic in Arms Regulations *and* Export Administration Regulations*, and they may constrain the rate of progress. Further, the extent to which Australia wishes to achieve defence industrial self-reliance and retain sovereignty of intellectual property remains to be resolved.*

Key words: AUKUS Pillar I; AUKUS Pillar II; nuclear-powered submarines.

So far, we have more questions than answers about AUKUS. This applies both to the new challenges to and opportunities for alliance co-operation that AUKUS presents, but also to past efforts to bypass or dis-assemble long-standing obstacles to defence industrial-technology co-operation, let alone integration, within the Australia-United States alliance.

Based on my reading of AUKUS-related developments and conversations with officials and experts, there are five points that I think are worth raising about AUKUS one year after its inception.

Point One: AUKUS is Not Yet a Game-Changer

AUKUS is a useful signal, but for all the positive steps that Australia, the United Kingdom, and the United States have taken so far, AUKUS is not a game-changer. In fact, it "is" very little right now, at least if we talk in terms of tangibles that most of us are allowed to see. There are quite difficult conversations that need to be had and complex processes that need to be navigated. Yet progress has been made on the submarine front – especially the signing of an information-sharing agreement on nuclear propulsion technologies.

AUKUS as empowerment

In fact, such developments tell a very positive story about the direction of America's overall approach to upgrading its key regional alliances. The combination of information-sharing and capability-building that AUKUS is intended to deliver is perhaps among the best examples of the Biden administration's willingness to empower America's close allies and partners to meet their own security needs and, simultaneously, to be better defence partners for the United States(Townshend and Corben 2021).

This empowerment has two distinct "types of kind" or pathways, a two-step approach to alliance modernisation in the Indo-Pacific (Corben and Lee 2022).

The first kind involves "stepping out" of the way of allies helping themselves. This has involved removing often outdated Cold War era regulations or restrictions designed to influence, or outright block, how allies and partners develop, procure, and/or use certain kinds of military capabilities. In other words, the Biden administration is taking a more 'hands-off' approach to allied and partner force structure decision-making. The best example of this in the Indo-Pacific is the decision to remove the last vestiges of the 1979 United States-Korea Ballistic Missile Guidelines.

The second, much more difficult, type of empowerment involves "stepping in" to help allies and partners access advanced defence technologies and platforms and to streamline co-operation on future capabilities, usually through existing mechanisms or frameworks designed for this purpose.

"Empowerment type two" is the most relevant for Australia. Indeed, AUKUS is the best example of this approach to date. Aside from supporting Australian submarine procurement, AUKUS also is intended to foster trilateral co-operation on a wider range of defence science and technology, industrial, and capability development projects. This, of course, was possible before AUKUS came into being, but the signals we can see here and elsewhere in the region (*e.g.* Japan) suggest that America is at least cognisant that it cannot retain its military technological edge on its own. In that sense, AUKUS dovetails with efforts to expand bilateral and trilateral alliance co-operation through the United States National Technology and Industrial Base (NTIB).

Well, dovetails? Or subsumes? Because as one of its chief architects remarked to me recently, the NTIB has failed to deliver on its promise of greater integration and access for top-tier allies to critical United States

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industrial-technological inputs and outputs. AUKUS has not changed that simply by coming into being.

Intention versus delivery

This word "promise" brings me back to the semantics of what AUKUS "is" versus what it ought to be, or what any of the parties involved believe it is intended to achieve. AUKUS "is" not much of anything other than good intentions at this point, because much of the commentary over the last year has chosen to frame AUKUS "as" something which it has not yet proven to be. "Game-changers" can only be called as such once they have meaningfully changed the game.

Saying that AUKUS "is" a technological accelerator, an industrial integrator, a commercial agreement, a vessel for delivering advanced American capabilities to Australia at higher speed, or anything to that effect will only be true after it is self-evident. AUKUS still has a long way to go to reach its potential in *any* of the ways that informed observers speak and think about its future. We cannot afford to be complacent, nor to underestimate the barriers that remain to its eventual success.

Point Two: America Trusts Australia with its Secrets

Initial advances through AUKUS show that the United States really does trust Australia with its most protected secrets. The implication is that when the "trust issue" next surfaces in the context of Alliance technology-sharing initiatives, it should be treated as the red herring that it is.

Contradiction of Five Eyes versus technology sharing

In years gone by, American officials have frequently balked at the idea of sharing their country's most sensitive military-technological secrets with even the closest of allies like Australia, worrying about insufficiencies or inadequacies for the protection of advanced defence technological intellectual property, among other concerns.

Part of this stems from what Townshend *et al.* (2019) called a "superpower mindset" or culture. This has compelled the United States to protect these secrets not only for the sake of its own military-technological edge over would-be adversaries, but also for the Cold War era purposes of conflict mitigation and minimisation – including by restricting allies' access to said technologies in the interests of regional stability.

At the same time, America has long shared sensitive intelligence with Australia through the Five Eyes arrangement. And we are now one of only two countries to share in the secrets of United States-origin nuclear propulsion technology, which is a major coup for Australia.

Further, we operate many other advanced United States-origin military systems – F-35A Joint Strike Fighters, P-8A Poseidons, MQ-4C Tritons, and more – in a part of the world where the risks of miscalculation and, potentially, armed confrontation have grown significantly; with the implication that defence industrial-technological secrets could be lost in the event of a mishap in international or foreign waters. To illustrate, in 2016 a United States Navy unmanned underwater vehicle was seized by China in the South China Sea, and was returned days later only once it had been disassembled and, presumably, reverse engineered.

There is recognition in America that, in the current strategic environment, this trust contradiction is no longer sustainable. Indeed, it is not uncommon to hear officials stress that whatever it is that Australia asks for from the United States, we have almost inevitably received, and this is true.

On the other hand, this trust contradiction is to say nothing of the leakiness of the United States' own defence industrial complex when it comes to industrial espionage and regulation. In October 2022, Cadell and Nakashima (2022) reported that a wide range of the Chinese People's Liberation Army (PLA) military research organisations had been acquiring troves of advanced American software products with dual-use applications to fill critical gaps in the PLA's own weapons programmes: more that 300 sales of things like aeronautical engineering software from around 50 companies since 2019. These software products were produced by American companies whose research had been funded by millions, if not billions, of Pentagon dollars. The *Export Control Reform Act of 2018* and accounting obligations for American firms notwithstanding, contract solicitation and award documents show that these technologies made their way into the hands of the Chinese Academy of Aerospace Aerodynamics (CAAA) through resales and front company activity. CAAA was instrumental in the design of China's 2021 hypersonic missile test, the one framed by the Chairman of the United States Joint Chiefs of Staff, General Mark Milley, as a "'Sputnik' moment."

If there is any 'smartening up' to be done regarding the protection of industrial intelligence and technological secrets, it is by *all* sides, not just the junior alliance partner. It should not be incumbent on Australia, time and again, to have to stress our trustworthiness to the United States. This should be about all sides working together to identify a select range of technologies and their critical inputs that require extra protection, to work together to ensure that the protections for these technologies are appropriately robust, but also to ensure that our efforts to protect these inputs do not compromise our efforts to foster more seamless co-operation amongst a trusted community. We need protections on all sides of the ponds (the Atlantic and Pacific alike) to share *and* protect technologies in the way that we hope to be enabled by AUKUS.

Point Three: AUKUS Pillar II is more critical than AUKUS Pillar I

I believe that AUKUS Pillar I, the submarines, will almost certainly work out, in the sense that we will, eventually, get our full complement. But there is no guarantee that they will be the dominant military platform of their kind in the oceans of the Indo-Pacific by the time we have the full complement online. Hence, with its emphasis on delivering both near-term capabilities and building advantages in technology that will define the

battlespace in the years ahead, Pillar II is the more critical of the two.

It is no small thing for the United States to have given Australia access to the crown jewels of its defence technological treasure trove, and at such speed from announcement to signature. But it is precisely the fact that, Washington has done this before that gives me enough confidence that Australia's fleet of nuclear-powered attack submarines (SSNs) will eventually come into the service of the Royal Australian Navy (RAN).

What is less clear is the kind of operational, let alone strategic, environment in which these boats will take to the water. Lee (2022) considered "AUKUS will ultimately be judged by whether the submarine endeavour succeeds or fails", but that 2050 "is a long way into the future to base defence planning: a completely different world in many respects".

To give a sense of the timelines involved, Dr Lee wrote that "the time before the last Australian SSN is commissioned will be similar to the time just elapsed between the present and the Hawke government's Defence White Paper of 1987". Then, the United States was undisputedly the dominant military power in Asia, China was in the midst of its emergence after years of internal strife, and India's economy was on par with Australia's. In short, "(t)hirty-five years later, the strategic environment is radically different". By 2050, what might well be "legacy" systems like surface ships, combat aircraft, and armoured vehicles "will have either been made redundant or reimagined to work alongside artificial intelligence and unmanned systems … This is the world in which the AUKUS partnership must be able to deliver nuclear-powered submarines that advance Defence's strategic objectives", which themselves may evolve over time.

Pillar II developments will impact Pillar I

The pace of change in the anti-submarine warfare enterprise will be of particular interest, especially given the proliferation of unmanned systems above and below the water's surface, and in the skies above. One only need look to the extra-large autonomous underwater vehicles being produced by Anduril, or recent efforts to modify small- and medium-sized unmanned aerial vehicles for sonobuoy deployments to see how unmanned systems will pose more persistent challenges to even the stealthiest of submarines.

Developments in artificial intelligence and quantum computing also could offer practitioners far more sophisticated tools for locating and targeting submarines and other sub-surface vessels with greater precision than is currently possible.

This is not to suggest that submarines will not be useful military platforms: much like the future strategic environment, it is hard to predict exactly how emerging technologies will develop, or whether they will deliver in the ways that we are often promised they will. But we cannot know for certain that the dominance that is frequently attributed to submarines today will hold true between now and 2050; hence we cannot rely on the delivery of AUKUS Pillar I alone to constitute success. That, of course, means putting greater stock into AUKUS Pillar II to deliver what Australia needs, not just before 2027, but out to 2050. And in that sense, it is no coincidence that artificial intelligence, quantum, and unmanned systems all appear on the advanced capabilities list.

Point Four: Legal, Policy and Regulatory Hurdles Remain

We are already encountering the same legal, policy, and regulatory hurdles to defence technology and industrial collaboration that we have dealt with for the last several decades. We do not yet have the optimal architecture to facilitate co-operation at the speed of relevance. Without this, there is a risk that AUKUS might 'accelerate', but it will not necessarily diversify or multiply in the way that we hope.

The ITAR problem

The hurdles I am largely referring to are the *International Trafficking in Arms Regulations* (or ITAR) which govern exports of defence equipment and technologies, as well as the *Export Administration Regulations* (EAR) which cover potential or verified dual-use equivalents.

The ITAR problem is two-fold, perhaps three-fold, for Australia (see Thomas-Noone 2019):

1. ITAR does not discriminate between allies and other generic recipients of United States military sales (meaning that Australia is treated equal to a country like Latvia).
2. ITAR is "extraterritorial" in its application, meaning that if knowledge or a product is labelled under ITAR at the research and development stage (through the involvement or design input of an American person or entity anywhere in the world) it is controlled under United States defence export controls through its entire product life-cycle, permanently.
3. The "taint" is not limited to defence technologies. It is further fragmented by dual-use items, which are administrated by the U.S. Department of Commerce through the EAR) and include technologies as diverse as propulsion systems to micro-organisms. According to experts like Dr William Greenwalt, former U.S. deputy undersecretary of defence for industrial policy, this means that dual-use (and unclassified) technologies are generally more at risk of ITAR taint than those that are classified.

To illustrate: the way ITAR rules and regulations currently work, it would only take a United States engineer deciding that they wanted red, rather than blue, hubcaps on their Australian-made teaming unmanned aerial vehicle – for example – for this to become "ITAR incumbent" and therefore subject to often arduous and repetitive application processes.

The limits of political buy-in

It is not that relevant parts of the United States system do not recognise the problem. As Secretary Lloyd

Austin's foreword in the recently released National Defense Strategy stated, "business as usual at the Department [of Defense] is no longer acceptable". At the time of its announcement, my colleagues and I believed that Biden's embrace of AUKUS on prime-time television signalled "presidential support for empowering close allies through defence industry co-operation"– including the necessary attendant reforms to export controls that needed to be made (Corben *et al.* 2021). And the solicitation of input from Australia on the nature and location of these problems within the United States system, and what to do about them, has been a welcome development. But the reality is that, one year into AUKUS, even with executive level buy-in to the concept from day one, Australia finds itself bumping up against the same roadblocks.

Unfortunately, it seems this signal was not enough to galvanise the system into action – namely, the State Department, where most of the regulatory, political, and culture barriers to export control reform seem to reside. In short, an unreformed United States defence export control regime is one of the biggest barriers to alliance integration, whether through the National Technology and Industrial Base (NTIB) or AUKUS.

Indeed, the barriers remain much the same as those identified by Thomas-Noone (2019): "bureaucratic fragmentation, failure to treat trusted allies differently from other partners, and leaders' reluctance to attempt politically costly reform". These barriers all remain today.

And as Dr Bill Greenwalt – who was also a chief architect of the NTIB reform that saw Australia added to the U.S. Defense Industrial Base (DIB) – noted more recently: "AUKUS as a concept may be dead in the water until ITAR is addressed and reformed" (Greenwalt 2022).

What to do for AUKUS?

So, what to do for AUKUS? It really depends on the nature of the reforms within the American system that Australia seeks to achieve, on what timeline, and at what depth.

If this is simply about accelerating and streamlining processes through which Australia acquires advanced military capabilities from the United States; perhaps expanding that enterprise to encompass maintaining, sustaining, and perhaps even manufacturing specific components of capabilities – or niche capabilities themselves – in this country; and if we accept the same level of ITAR taint but in exchange for a process that works faster … then I have greater confidence that we can work most of this out with Washington in a reasonably short timeframe.

If this is the ask – light touches to the system to give Australia greater preferential treatment without a major restructure – then I am fairly certain the submarines will work out. America knows what it is giving away, and it has some idea of what it means to let a close ally "into the tent" or to "peak under the hood". Accelerating delivery through what I might refer to as "positive discrimination" and some deeper level of industrial integration through supply chain distribution are arguably easier for the United States to countenance, perhaps because there is scope for it to remain the undisputed senior partner in control of the intellectual property and its end-use.

If, however, Australia's goal is to secure reforms to allow America, Australia and Britain to pool their engineering, science and technology resources to develop the next generation of defence capabilities together from step one, or from having what Ashley Townshend has referred to as the 'shared Google Doc' model for collaboration, then this is a far bigger ask that will probably require more widespread reform. This is, to me, quite clearly the biggest hurdle when it comes to realising AUKUS Pillar II in the way that I think most in Australia think of it.

Failing this more widespread reform, I fear that while AUKUS might end up accelerating some capabilities for Australia, our ability to innovate collectively will remain highly constrained, and we will be unable to do so at the speed of relevance, without navigating reams of regulations, or without allowing non-American companies to retain their valuable intellectual property.

In either case, the key variable is speed. Whether it is acquiring known capabilities from America or designing new ones from scratch, we need to move faster.

Point Five: Australian Sovereignty

The ITAR problem also means that Australia needs to do some serious thinking about what sovereignty actually looks like through AUKUS, and through the upgraded United States alliance more broadly, when it comes to defence industry and technology co-operation. How Australia defines "sovereignty" will determine whether we seek to use AUKUS as a battering ram or a surgical scalpel when it comes to Alliance management, particularly the export control reform issue, on-shoring production for priority capabilities, and protecting Australian intellectual property.

Sovereignty is not a conceptual blanket for Australia to throw over AUKUS writ large. It is not a black-and-white proposition. AUKUS notwithstanding, Australia remains in a situation where the best we can hope for is "bounded" or "selective" sovereignty. Australia will never be able to do everything on its own when it comes to developing, producing, and maintaining most of its high-end defence capabilities. It therefore falls to questions of the degree of integration with the United States that we seek and, by extension, the degree of sovereignty that we are willing to give up as much as that which we seek to secure.

It flows that it is incumbent on us to know which parts of the various defence supply chains or innovation networks in which Australia has substantial equities are worthy of investment – financially and politically – to make them a reality in this country. The previous and current governments in Australia already know this. Defence Minister Richard Marles, during his visit to the United States in 2022, stressed on multiple occasions that Australia's intention is to supplement the United States defence industrial base and its critical supply chains, not to replace or compete with them.

The government is not looking to reinvent the wheel when it comes to the US–Australia defence integration programme (Corben 2022). Rather, its message has been that the wheel needs to spin faster, and that this is not just about maximising benefits for Australia. In that sense, the alliance's defence industrial and technological integration initiatives are closely tied to the expanded force posture initiatives announced at AUSMIN[2] in 2021, particularly the combined logistics, sustainment, and maintenance enterprise to support high-end warfighting and combined military operations in the region.

This, too, is intended to better integrate Australian and United States defence forces, but also raises questions and concerns around Australian sovereignty, especially for the layman, because the sight of American bombers or marines operating from Australian shores is far more tangible for most Australians than obscure debates about supply chains and technological intellectual property.

But in both cases, knowing exactly what degree of sovereignty Australia seeks over different capabilities or inputs into a shared defence industrial ecosystem will be crucial if we are to maximise our efficiencies and ask for the right things, at the right time, and for the right return, from the United States.

Even if we have an overarching concept like "bounded sovereignty" in mind, it is likely that the sovereignty equation will vary from capability to capability. Take the submarines: does sovereignty look like building these boats here in their entirety, minus the reactors? Does it look like maintaining these vessels exclusively in Australia after they are built? Does it look like manufacturing and supplying all the armaments or supporting capabilities (including the XLAUVs) by ourselves without American help? Can ITAR be streamlined enough to make any of this tenable?

What about advanced capabilities? Does sovereignty mean the head-to-toe development of hypersonic or counter-hypersonic capabilities here in Australia? What about things like Loyal Wingman[3]? What about intangibles like artificial intelligence and software applications, quantum capabilities, *etc.*? These are not easy questions, though they are questions that the United States Studies Centre will be seeking to address in 2023.

Conclusion

One year on, while AUKUS is not yet a game-changer, it is clear that America is prepared to trust Australia with its most protected defence industrial secrets. The technologies developed under AUKUS Pillar II, like artificial intelligence, will be more critical, particularly in the medium term, than the submarines developed under AUKUS Pillar I. Regardless, legal, policy and regulatory hurdles to co-operation between Australia and America remain and may constrain the rate of progress. Further, the extent to which Australia wishes to achieve defence industrial self-reliance and retain sovereignty of intellectual property remains to be resolved.

The Author

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References

Cadell, C., and Nakashima, E. (2022). American technology boosts China's hypersonic missile program. *The Washington Post* 17 October 2022.

Corben, T. (2022). Marles's focus for the US-Australia alliance: integrate, integrate, integrate. *The Strategist* (Australian Strategic Policy Institute: Canberra) 21 July 2022.

Corben, T., and Lee, P. K. (2022). Fancy footwork: Biden's two-step approach to Indo-Pacific allies. *The Diplomat* 16 March 2022.

Corben, T., Townshend, A., and Patton, S. (2021). *What is the AUKUS partnership?* (United States Studies Centre: Sydney), 16 September 2021.

Greenwalt, W. (2022). The NTIB is dying: is AUKUS next? Congress must apply life support soon. *Breaking Defense – Defense Indo-Pacific* 01 June 2022.

Lee, P. K. (2022). The AUKUS submarines must take aim at a distant moving target. *The Australian Financial Review* 14 September 2022.

Thomas-Noone, B. (2019). *Ebbing opportunity: Australia and the US national technology and industrial base* (United States Studies Centre: Sydney), 25 November 2019.

Townshend, A., and Corben, T. (2021). Beyond alliance repair: Biden must do more in the Indo-Pacific. *The Diplomat* 13 September 2021.

Townshend, A., Thomas-Noone, B, and Steward, M. (2019). *Averting crisis: American strategy, military spending and collective defence in the Indo-Pacific* (United States Studies Centre: Sydney) 19 August 2019.

[2]AUSMIN: Australia-United States Ministerial Consultations normally held annually between Australia's defence and foreign affairs ministers and their United States counterparts.

[3]Loyal Wingman: a stealth, multi-role unmanned aerial vehicle in development by Boeing Australia for the RAAF.

AUKUS: A Year On

A paper based on a seminar presentation to the Institute in Sydney on 23 November 2022 by

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The Australian Defence Force needs to be an integrated force, relevant and credible in all domains, and must continue to grow together with our allies and partners, imbibing new technologies to become a multi-directional, multi-dimensional, and multi-domain force.

Key words: Indo-Pacific; next war; joint force; allies and partners; multi-domain.

I thank and congratulate the Royal United Service for Defence and Security Studies NSW for the contribution to public debate on defence and security issues. And that is clearly to protect and promote Australia's national interests through our contribution to a free and open Indo-Pacific. Your thinking and advocacy has the potential to be the rising tide that lifts all boats.

On the AUKUS agreement, the Army is working on the deterrence aspect with our allies and partners in the region. It will very much be an applied focus, and from a soldier's perspective, as part of an integrated team.

By any measure the Indo-Pacific region is much less certain, more complex, and frankly a more dangerous environment than it has been during our lifetime – my proposition is that we are stronger together, and our nation needs more options, not less.

While a military exists to defend sovereign territory and national interests, the measuring stick of success, as a military, is no war. We do it through our day to day campaigning and through fielding and sustaining a joint force that is relevant and credible in all five warfighting domains.

There is a prevailing commentary today that speaks with undue precision and certainty about the 'next war'. It generally comes from a perspective that either dismisses or ignores the very violent, very human and very unpredictable nature of war. It confuses targeting and tactics for operational art and strategy, and describes a symmetrical response in a single modality of warfare. It supposes will can be imposed, and can be resisted, at ever increasing distance and without having to close with an adversary. It focuses on the outcome of the first battle, or battles, rather than the war. It imagines the next war will be short, decisive and clean. Unfortunately, history, including Australia's history, does not support these hypotheses.

Even the strategic shock reverberating from the latest war in Ukraine – a war that began in 2014 – has shown deterrence can fail and that assumptions can be wrong. Fog, friction, chance and individual agency mean that war will always unfold in ways that were never expected or envisaged. Above all, the war in Ukraine is a stark reminder of what is at stake. It highlights at once, the fragility and the value of the 'rules based order' that has characterised the last eight decades of relative peace and stability in our region, and the remerging willingness of some state actors to use military force to impose their will. We ignore these lessons from history at our peril. To quote General H.R. McMaster, "*we have a perfect record of predicting future wars… and that record is zero percent*".

The unpredictability of war demands an Australian Defence Force (ADF) that is relevant and credible in all domains, and integrated – as a system of systems – that has the best probability of mission success whether deterring war or prevailing in its contest.

Senior Defence officials have previously spoken of Army's modernisation plans to be more protected, connected, lethal and enabled as part of the joint force. Our quest for an integrated force is built on the assumption that we are more than the sum of our constituent parts – but equally each of the parts must be viable in the first instance.

It is also true that as a values-based liberal democracy, we will fight alongside our allies and partners to help ensure peace and stability. Army has been doing this for many decades and established long-standing relationships. We have found across Indo-Pacific nations, Defence is often the most trusted institution. They are the glue that binds the region's security architecture together. By partnering with these armies in defence exercises, education opportunities, and leader conferences, we better understand the security demands of the region in a way that you can only gain from persistent presence that is provided by boots on the ground.

Next year the Army has more than 150 discrete training exercises to enhance our collective warfighting capability, up-to and including high-end joint warfighting scenarios. We also have more than 200 soldiers and officers from regional armies attending education and training courses here in Australia, and several major construction projects will continue to deliver essential infrastructure into our region, injecting 75% of cost into local economies by using local materials and labour. Through education and training we are enhancing skills, health and education in local communities of our region.

The challenges we face today are deeply significant. I would offer we need the ADF to be an integrated force, relevant and credible in all domains, and that joint relationships are critical and have been for a very long time. We must continue to grow together with our allies and partners in this age of new technology and threats. The future fight will be multi-directional, multi-dimensional, and multi-domain. If we plan to fight the next war domain-on-domain, we may not like the outcome. But if we are prepared to fight across all domains with our allies and partners as a joint and combined team, and demonstrate our ability to make that problem more complex and harder everyday, there is no adversary on the planet that can match this team.