FEATURE ARTICLES

Modern Threats, Modern Alliances: The Indo-Pacific's Evolving Security Architecture

Dr. Julia MACDONALD
Director, Asia New Zealand Foundation

The contemporary alliance architecture of the Indo-Pacific was forged in an environment defined by conventional deterrence, maritime control, and nuclear balancing. During the Cold War and its immediate aftermath, the United States constructed a system of bilateral alliances—often described as a "hub-and-spokes" model—anchored in treaties with Japan, South Korea, Taiwan and others. These arrangements were designed primarily to deter communist expansion through forward military presence, as well as to restrain potentially volatile partners whose actions risked entangling the United States in unwanted conflicts.[19]

This architecture reflected both geography and politics. The maritime character of the Indo-

[19] Victor Cha, "Powerplay: Origins of the U.S. Alliance System in Asia," *International Security* 34, no. 3 (2010).

Pacific elevated the importance of naval power and access, while regional diversity limited the feasibility of a NATO-style multilateral alliance. As a result, alliances in the Indo-Pacific tended to be more fragmented, more bilateral, and more politically constrained than their Euro-Atlantic counterparts.[20] Countries in the region prioritized stability, alliance discipline, and strategic flexibility over collective decision-making, with alliances oriented more toward territorial defense and crisis stability than continuous operational integration.[21]

As a consequence of their unique origins and intent, the Indo-Pacific alliances also did not prioritize technological integration. While interoperability and standardization were relevant, they were largely subordinate to the more immediate goals of deterrence and reassurance. Military power was understood primarily in terms of hardware like ships, aircraft, and ground forces rather than networks or data.[22]

That foundation is now under strain. As emerging technologies reshape both the conduct of warfare and the structure of strategic competition, the traditional purpose and function of the Indo-Pacific alliance architecture are being redefined. Security arrangements are increasingly valued not only for deterrence and forward presence, but also for their ability to integrate technology, coordinate industrial capacity, strengthen resilience, and enable networked operations across domains and regions.[23] This shift is resulting in an evolution of alliance arrangements away from the traditional "hub-and-spokes" model to a more distributed networked security system designed to maximize flexibility, manage risk, and build resilience.[24]

Security arrangements are increasingly valued […] for their ability to integrate technology, coordinate industrial capacity, strengthen resilience, and enable networked operations across domains and regions.

THE CHANGING NATURE OF WARFARE

Warfare in the Indo-Pacific is increasingly shaped by technologies that expand the battlespace, compress decision time, and blur the boundary between peace and conflict. Cyber operations, space-based systems, artificial intelligence, autonomous platforms, and long-range precision strike capabilities are now central to military competition, rather than peripheral.[25]

Warfare in the Indo-Pacific is increasingly shaped by technologies that expand the battlespace, compress decision time, and blur the

[20] Bruno Tertrais, "The Changing Nature of Military Alliances", *The Washington Quarterly* (27:2), 135-150.
[21] Victor Cha, "Powerplay: Origins of the U.S. Alliance System in Asia."
[22] Tertrais, "The Changing Nature of Military Alliances."
[23] Thomas Wilkins, "A Hub-and-Spokes 'Plus' Model of US Alliances in the Indo-Pacific: Towards a New 'Networked' Design," *Asian Affairs* 53, no. 3 (2022).
[24] Julia Maconald, "Why Indo-Pacific middle powers are building networks, not alliances" *Asia in Focus,* 17 April 2026: https://www.asianz.org.nz/why-indo-pacific-middle-powers-are-building-networks-not-alliances
[25] Adam Segal, "The Future of Technology Deterrence in the Indo-Pacific," *Perry World House,* May 19, 2025: https://perryworldhouse.upenn.edu/news-and-insight/the-future-of-technology-deterrence-in-the-indo-pacific/

boundary between peace and conflict.

One of the most significant developments is the growing importance of long-range missile systems and networked sensing. The proliferation of advanced strike capabilities, combined with improved targeting and surveillance, has created a battlespace in which operational success depends on the ability to rapidly integrate multiple systems. [26] In such an environment, traditional assumptions about safety, warning time, and escalation control become less reliable, and survivability depends more on dispersion and deception within a distributed network of sensors and shooters.[27]

These changes are not limited to large-scale, kinetic conflicts, however, as states increasingly pursue coercion below the threshold of war through cyber attacks, information operations, and gray-zone activities. Russia's cyberattacks on Ukrainian infrastructure, Iran- and Israel-linked disinformation and cyber campaigns, and China's use of maritime coercion in the South China Sea all demonstrate the increasing prevalence of such activities.[28] The result is a form of competition that is difficult to deter using conventional means alone. Technologies such as artificial intelligence, quantum computing, and cyber capabilities are reshaping deterrence by altering how states manage these escalating gray-zone tactics.[29]

Equally important is the growing role of infrastructure. Energy security, logistics networks, and access to data centers are becoming critical, particularly in the Indo-Pacific. Military effectiveness now depends not only on frontline capabilities but also on the robustness of the systems that sustain them.[30]

Taken together, these developments point to a form of warfare that is more distributed, more data-driven, and more dependent on integration across domains. Success is less about individual platforms and more about the ability to bring capabilities together into a coherent system. This, in turn, has important implications for how states think about the purpose and design of security alliances.

Success is less about individual platforms and more about the ability to bring capabilities together into a coherent system.

ALLIANCE ADAPTATION IN A TECHNOLOGICAL AGE

As the character of warfare evolves, so too does the

[26] Tertrais, "The Changing Nature of Military Alliances."
[27] See Jacquelyn Schneider and Julia Macdonald, *The Hand Behind Unmanned: Origins of the US Autonomous Military Arsenal* (New York: Oxford University Press, 2025); "How to Lose the Drone War: American Military Doctrine is Stifling Innovation," *Foreign Affairs*, 31 July 2025: https://www.foreignaffairs.com/united-states/how-lose-drone-war
[28] Matt Murphy, Olga Robinson & Shayan Sardarizadeh, "Israel-Iran conflict unleashes wave of AI disinformation," *BBC*, 21 June 2025; Carl Thayer, "The State of the South China Sea: Coercion at Sea, Slow Progress on a Code of Conduct," *The Diplomat*, January 27 2025; Reuters, "Russia conducted mass cyberattack on Ukraine's state registries, deputy PM says," 20 December 2024.
[29] Segal, "The Future of Technology Deterrence in the Indo-Pacific."
[30] Charles McEnany, "Contested Logistics in the Indo-Pacific: Joint Sustainability Through Positional Advantage," *Association of the United States Army*, Spotlight 24-1, January 2025, https://www.ausa.org/publications/spotlight/contested-logistics-in-the-indo-pacific

role of alliances. No longer defined solely by mutual defense commitments, alliances in the Indo-Pacific are increasingly becoming mechanisms for technological integration, industrial cooperation, and operational coordination.[31]

This shift reflects a basic reality: no single state can independently develop, field, and sustain the full range of capabilities required for modern warfare. Advanced military technologies are complex, expensive, and often dual-use, requiring close collaboration between governments and industry. Alliances, therefore, are becoming platforms for pooling resources and accelerating innovation.

At the operational level, the demands of networked warfare are driving deeper forms of integration. Effective coalition defense now requires shared sensing, interoperable command-and-control systems, and coordinated logistics. The ability to offset adversary advantages, such as China's growing missile arsenal, depends on the degree to which partners can function as a cohesive operational network rather than a collection of independent forces.[32]

The changed nature of regional threats and the consequent imperative for increased coordination is why there have been growing calls for versions of an "Asian NATO" or more formalized collective defence pact in the Indo-Pacific.[33] Yet geographic constraints, political sensitivities, and divergent threat perceptions continue to shape how far and fast regional alliances can evolve.[34] The result has not been a single model of alliance transformation, but multiple pathways reflecting different levels of ambition and integration.

Three examples—AUKUS Pillar II, the Quad, and the Indo-Pacific Four (IP4)—illustrate this modular approach and how alliances in the Indo-Pacific are adapting to the demands of a new technological era.

AUKUS Pillar II: Deep Capability Integration

Among contemporary initiatives, AUKUS Pillar II represents the most ambitious effort to align alliance structures with the demands of emerging military technology. While AUKUS—the defence arrangement signed between Australia, the United States, and the United Kingdom—is often associated with its submarine component, Pillar II focuses explicitly on advanced technologies, including cyber, artificial intelligence, quantum, and autonomous systems.[35]

What distinguishes Pillar II is its emphasis on co-development and co-production. Rather than simply coordinating existing capabilities, the United States, the United Kingdom, and Australia are seeking to jointly develop new technologies

[31] Segal, "The Future of Technology Deterrence in the Indo-Pacific."
[32] Peter Dean and Christopher Watterson, *Missiles and Multipolarity: Can an Indo-Pacific Coalition Defeat China's Missile Overmatch* (Sydney: United States Studies Centre, 2026).
[33] Ely Ratner, "The Case for a Pacific Defence Pact," *Foreign Affairs* (July/August 2025): https://www.foreignaffairs.com/china/case-pacific-defense-pact-ely-ratner; Tim Kelly, "Incoming Japan PM Ishiba's 'Asian NATO' idea test for US diplomacy," *Reuters,* September 27 2024: https://www.reuters.com/world/asia-pacific/incoming-japan-pm-ishibas-asian-nato-idea-test-us-diplomacy-2024-09-27/
[34] Bec Strating, "The wrong time for a Pacific defence pact in Asia," *The Interpreter,* 29 May 2025: https://www.lowyinstitute.org/the-interpreter/wrong-time-collective-defence-pact-asia; Julia Maconald, "Why Indo-Pacific middle powers are building networks, not alliances."
[35] Frank A. Rose, "Beyond Submarines: Why AUKUS Pillar II matters now," *The Interpreter,* September 2025: https://www.lowyinstitute.org/the-interpreter/beyond-submarines-why-aukus-pillar-ii-matters-now

and accelerate their deployment. This reflects a recognition that technological advantage is increasingly central to deterrence and that maintaining it requires sustained collaboration.[36] At the same time, Pillar II underscores the growing importance of critical infrastructure. As research on emerging energy technologies suggests, the resilience of power supplies, data, and logistics networks is critical to sustaining operations in the Indo-Pacific.[37] By focusing on a broad set of capabilities, AUKUS reflects an understanding that military effectiveness increasingly depends on the integration of these supporting elements.[38]

The Quad: Flexible Coordination

In contrast to the deep integration pursued under AUKUS, the Quad—comprising Australia, India, Japan, and the United States—represents a more flexible and less formal approach to security cooperation. Lacking a mutual defense treaty, the Quad operates as a platform for coordination on shared challenges, including maritime security, supply chains, and emerging technologies.[39]

This flexibility reflects how Indo-Pacific states often seek to balance cooperation with strategic autonomy, avoiding commitments that could constrain their policy choices or entangle them in unwanted conflicts. The Quad's structure allows members to collaborate where interests align while maintaining independence in other areas. Yet despite its informal nature, the Quad plays a meaningful role in shaping the regional security environment. Initiatives on maritime domain awareness, for example, enhance the ability of regional states to monitor and respond to activities in their waters. Similarly, cooperation on critical and emerging technologies contributes to the development of standards and the resilience of supply chains.[40]

From the perspective of alliance adaptation, the Quad illustrates how "alliance-like" functions can be performed outside formal alliance structures. Such arrangements can reinforce deterrence by strengthening coordination and resilience, even in the absence of binding commitments.[41] At the operational level, though, the Quad's contributions are likely to remain indirect. While it may support coordination in areas such as logistics and information-sharing, it is less suited to the kind of tightly integrated warfighting envisioned under AUKUS.

The Indo-Pacific Four: Cross-Regional Networking

A third pathway is emerging through the growing interaction between Indo-Pacific partners and Euro-Atlantic institutions, exemplified by the Indo-Pacific Four (IP4)—Australia, South Korea, Japan, and New Zealand. Engagement between

[36] See e.g. Frank L. Smith, *Integrating deterrence into defence science and technology cooperation* (Sydney: US Studies Centre, 18 April 2023): https://www.ussc.edu.au/integrating-deterrence-into-defence-science-and-technology-cooperation

[37] Jason Van der Schyff, "Infrastructure resilience underpins national power," *ASPI Strategist*, 2 December 2025: https://www.aspistrategist.org.au/infrastructure-resilience-underpins-national-power/

[38] Segal, "The Future of Technology Deterrence in the Indo-Pacific."

[39] Dominique Fraser, "The QUAD: A Backgrounder," *Asia Society*, 16 May 2023: https://asiasociety.org/policy-institute/quad-backgrounder

[40] Peter Parsons, "Quad's maritime domain awareness initiative strengthens Indo-Pacific security," *Indo-Pacific Defense Forum*, 19 June 2025: https://ipdefenseforum.com/2025/06/quads-maritime-domain-awareness-initiative-strengthens-indo-pacific-security/; Hayley Channer, "The Quad should share intel on critical-mineral supply risks," *The Strategist*, 30 April 2026: https://www.aspistrategist.org.au/the-quad-should-share-intel-on-critical-mineral-supply-risks/

[41] Segal, "The Future of Technology Deterrence in the Indo-Pacific."

these countries and NATO reflects an expanding recognition that security challenges are increasingly transregional.[42] The IP4 does not constitute a formal alliance, nor is it intended to replicate NATO in the Indo-Pacific. Instead, it functions as a bridge between regions, facilitating dialogue and cooperation on four main areas: support for Ukraine, cyber defense, countering disinformation, and emerging technologies.[43]

This cross-regional networking reflects the changing nature of strategic competition. As the alignment between North Korea, Iran, Russia, and China has laid bare, the challenges posed by new military technologies, nuclear weapons, cyber threats, disinformation, and critical infrastructure vulnerabilities are not confined to any single theater. By linking Indo-Pacific partners with Euro-Atlantic institutions, the IP4 contributes to a broader effort to align approaches to these issues.

Beyond the immediate security threats, there is also recognition that technologies underpinning military power, such as semiconductors and communications infrastructure, are embedded in global supply chains that can be easily disrupted, as shown most recently by the war in Iran. Disruptions in Europe can have cascading effects in the Indo-Pacific, and vice versa, making coordination across regions essential.[44]

From an alliance perspective, the IP4 illustrates how security cooperation is becoming more networked and less geographically bounded. Rather than operating within discrete alliance systems, states are increasingly participating in overlapping frameworks that connect different regions and issue areas.

CONCLUSION

The evolution of alliances in the Indo-Pacific reflects a broader transformation in the character of warfare. What began as a system designed for conventional deterrence and nuclear stability is being reshaped by technologies that make conflict more distributed, more data-driven, and more complex. In this environment, alliances are adapting in multiple ways. AUKUS Pillar II represents the deepest form of adaptation, emphasizing technological integration and capability development. The Quad shows how flexible, issue-based cooperation can support regional security without formal alliance commitments, whereas the Indo-Pacific Four highlights the growing importance of cross-regional networking in addressing transnational challenges.

Together, these examples demonstrate that alliance adaptation is not a singular process but can take a variety of forms depending on the issues at stake and the interests of the countries involved. As technological change continues to accelerate, the effectiveness of alliances will depend not only on their formal commitments but on their ability to integrate capabilities and coordinate across regions. The Indo-Pacific's layered, networked security architecture is well-suited to adapting to these new demands.

[42] NATO, "Relations with partners in the Indo-Pacific region," 13 April 2026: https://www.nato.int/en/what-we-do/partnerships-and-cooperation/relations-with-partners-in-the-indo-pacific-region

[43] Kawashima Shin, "NATO and the IP4: Potential and Limitations," *The Diplomat,* 12 March 2026: https://thediplomat.com/2026/03/ip4-potential-and-limitations/

[44] Segal, "The Future of Technology Deterrence in the Indo-Pacific."

Dr. Julia
MACDONALD

Dr. Julia MACDONALD is Director of Research and Engagement at the Asia New Zealand Foundation and a senior fellow at the Centre for Strategic Studies, Victoria University of Wellington. She is the co-author of The Hand Behind Unmanned: Origins of the US Autonomous Military Arsenal (New York: Oxford University Press, 2025). Julia holds a PhD from the George Washington University, MA from the University of Chicago, and BA (Hons) from the University of Canterbury, New Zealand.