Allies and Partners in the Indo-Pacific:
Emerging Technology as a Disrupter and Enabler¹
Michael J. Green

It is well understood that rapid technological change is defining and accelerating strategic competition with China, but much less focus is being placed on how technology is impacting the U.S. network of alliances and partnerships needed to maintain an edge in that competition. Strategic alignment with and among U.S. allies in the Indo-Pacific has reached an unprecedented pitch, but that same alignment and interdependence presents complications for the United States and its allies in three areas: (1) how do we lower longstanding barriers to sharing technology and defense industrial production with each other; (2) how do we align operationally while preserving sovereign decision-making in a strategic environment where technology is erasing warning time and geographic boundaries; and (3) how do we stay in lock-step with allies as we put up the barriers needed to increase “friend-shoring” and reduce technology dependence on a predatory China?

This paper will consider all three questions after framing the historical and geopolitical context behind this new chapter of alliance-building in the Pacific. While the findings in the paper would apply to NATO or partners like India, the focus is on Japan, Korea, and Australia—those treaty allies most directly impacted by Chinese coercion and most critical to determining U.S. competition strategy in emerging technologies. Put another way, if we cannot get technology competition strategy right with these three closest of allies, we will not succeed overall.

Back to the Future: Technology and the Post-War Alliance System

Technology considerations were central to the construction of the post-war “San Francisco System” of bilateral security treaties with Japan, Korea, and Australia/New Zealand. The 1951 Security Treaty with Japan was quickly backed in 1954 with a Mutual Defense Assistance Agreement (with similar arrangements for Korea and Taiwan) that led to the transfer of advanced defense production capacity for jet fighters and other systems viewed by Washington as crucial to sustaining a favorable balance-of-power and deterring Soviet and Communist Chinese aggression, helping avoid an unsustainable burden on the American taxpayer. By the 1980s, Congress began questioning this logic after seeing Japan dominate one manufacturing sector after another, with bilateral friction exploding over Tokyo’s plans for a next-generation indigenous “FSX” fighter that seemed to threaten the once-unassailable U.S. aerospace industry.² In the end, the U.S.-Japan techno-nationalist wars predicted by many were averted by Japan’s own economic slowdown and the growing menace of Chinese revisionism; but it was not that long ago that Japan was seen as the major rival of the United States, and it took several decades of fits and starts for a policy consensus to form in Washington that integration with Japan and other Asian allies was in fact the key to prevailing in the new competition with Beijing.

One source of hesitation was the expectation by many in the United States and the region that competition with Beijing could be muted through strategic reassurance, institution building, and economic cooperation with China. When Xi Jinping proposed a “New Model of Great Power Relations” in 2013 to avoid conflict through mutual compromise, official and public opinion in the United States split. Those in the Obama administration sensitive to Japanese or Indian opposition to a new Sino-U.S. bipolar condominium were skeptical of Xi’s proposal, while those hopeful that cooperation on climate change and other global issues could temper U.S.-China friction were intrigued. The American public was also divided on whether the U.S. position in Asia depended more on cooperation with a rising China or with Japan and traditional allies, as the Chicago Council on Global Affairs found in polling that same year.³ Attitudes among U.S. allies also varied, with Britain and Australia breaking ranks to join the new Chinese-led Asian Infrastructure Investment Bank, and India and Australia pulling back from the Quad forum that had begun together with Japan and the United States in 2007. Meanwhile, Korean Presidents Park Geun-hye and Moon Jae-in embraced Xi’s postulation that the region was defined by a bipolar power structure between the United States and
China; and consequently, Seoul chose policies of “strategic ambiguity” to avoid any explicit involvement in balance-of-power strategies vis-à-vis Beijing that might jeopardize trade with China or use of Chinese leverage on Pyongyang.

A decade of Chinese coercion against all these allies—including grey zone pressure on Japan’s Senkaku Islands; economic embargoes against Japan, Korea, and Australia; bribery and interference in domestic politics; and the pursuit of People’s Liberation Army (PLA) military bases and access through the South China Sea, Indian Ocean, and Pacific Islands—has completely changed the debate. In all three countries, distrust of China is at an all-time high and support for alliance with the United States is now close to or above 90% in public opinion surveys. When the Chicago Council re-asked the American public about cooperation with China versus Japan in 2019, close to two thirds of Americans chose Japan and allies as the priority. Reflecting this same trend, the Biden administration referenced allies and partners 33 times and China only a handful of times in the 2022 Indo-Pacific Strategy; elevated the Quad to a regular summit; and announced new initiatives such as the Australia-UK-U.S. “AUKUS” agreement to assist Australia with production of nuclear-powered attack submarines and to cooperate trilaterally on developing advanced defense capabilities.

Technology transfer and cooperation is once again forming a core element in alliance strategy, as it did at the beginning of the Cold War. The AUKUS decision involves the first transfer of nuclear propulsion capabilities to an ally since the U.S.-UK agreement of 1957. The Biden administration’s support for Japan’s unprecedented acquisition of stand-off strike capabilities, beginning with U.S. Tomahawk cruise missiles, is the most significant transfer of firepower to Japan since 1954, with similar support for Korea’s strike capabilities and Australia’s Sovereign Guided Weapons and Explosive Ordnance Enterprise (GWEO). Polls show that Americans increasingly identify allies as crucial to the United States’ own security, and military planners in INDOPACOM are looking for increased access, basing, and overflight agreements, and allied deterrence capabilities to manage the PLA’s ability to project lethal military power well beyond the Taiwan Strait.

If the United States depends on allies more for its own security, though, the dependence cuts both ways. AUKUS represents a big bet by the Australian government that the United States (and the UK) will deliver the highly sensitive undersea warfare capability required and remain a reliable ally for the multiple generations those submarines will be operating. Japan’s revision of its interpretation of Article Nine of its Constitution in 2015 to allow collective self-defense with the United States reflects a decision that Tokyo is better off risking entrapment in U.S. conflicts than abandon of the United States in the face of Chinese expansionism—and implies Japan will be at the center of any contingency in the future. Meanwhile, Korea’s new Indo-Pacific Strategy has brought the ire of Beijing, but indicates acknowledgment in Seoul that strategic ambiguity is no longer an option.

This increased interdependence between the United States and its allies makes the three technology problems identified in this paper all the more acute.

**Technology, Sovereignty, and Defense Industrial Integration**

When Japan began exploring the requirement for stand-off strike weapons during the Obama administration, there was little support inside Washington and the Japanese position was still exploratory at home. But in 2022, the Japanese government made the case unequivocally in its National Security Strategy that “we need counterstrike capabilities: capabilities which, in the case of missile attacks by an opponent, enable Japan to mount effective counterstrikes against the opponent to prevent further attacks while defending against incoming missiles by means of the missile defense network.” And the Biden administration, including many officials who would have been skeptical only a few years earlier, agreed, focusing on delivery of U.S. Tomahawks as the first phase. Australia also determined in its 2023 Defence Strategic Review (DSR) that strike capabilities would be a major priority with missiles produced in Australia under the Guided Weapons and Explosive Ordnance initiative, with Lockheed Martin and Raytheon designated as the key industry partners. Korea several years earlier had successfully negotiated an extension of missile ranges on the peninsula in response to North Korean missile developments, developing shorter ranges than Australia or Japan, but deep enough to strike anywhere in the North. AUKUS represents an even more
significant attack capability for Australia with the expectation of eight or more nuclear-powered attack submarines in the water beginning in 2040.

As was noted, this combined allied plan for firepower in the Western Pacific represents the most significant transfer of U.S. technology and the most significant integration of defense industrial efforts since the end of the Cold War and arguably since the 1950s. The vision of a quasi-arsenal of democracy in Asia was foreshadowed in a 2014 Center for Strategic and International Studies report by this author and others which proposed a concept of “federated defense” in the Pacific. It was an ambitious idea then and significant hurdles still remain despite the greater sense of common purpose in the face of geostrategic pressures.

To begin with, Japan, Australia, and Korea will face the same supply chain and workforce shortages that are hampering U.S. support for Ukraine and plans for the U.S. military, particularly the Marine Corps with its new concept of mobile strike-based capabilities. In addition, while the Biden administration and Congress have been forthcoming with respect to streamlining Foreign Military Sales (FMS) for Japan and finding carve outs for Australia under International Trade in Arms Registries (ITAR) limitations for AUKUS, the bottlenecks remain significant. Even the most ambitious proposals for ITAR in Congress would likely only cover prospective work and leave in place restrictions that make maintenance and upgrades of existing systems with allies cumbersome and time consuming.

For their parts, Japan and Australia are placing higher emphasis on industrial production in their own countries—an understandable priority from the perspective of domestic politics and industrial base concerns—but a more costly and time-consuming path in most cases. (Though it is worth noting that Australia has agreed to make significant investments into the U.S. industrial base to facilitate submarine production under AUKUS as well.) U.S. allies also still have much work to do in terms of security of information. This is most true of Japan where new legislative proposals promise some needed improvements, but even Australia (a member of Five Eyes) has work to do to improve security of information, such as in the industry and university sectors, which will be critical players in AUKUS and GWEO. Even with progress on security of information bilaterally with the United States, there will be further work to do among U.S. allies on a plurilateral basis if a federated defense concept is to be realized with Japan or Korea in AUKUS Pillar Two (advanced capabilities development) or GWEO.

These are the complexities with developing strike capabilities undersea, on land, or in the air. Rapid change in extraterrestrial and other domains is creating even greater complications for allies attempting to integrate capabilities and deterrence. The U.S. Space Force requested $30 billion for FY 2024 to maintain deterrence in this domain that is critical for all others. NASA’s budget allocation was $24.5 billion on top of that. In contrast, the Australian Space Agency (established in 2018) received a budget for 2023 of AU$34.2 million and the Labor government scrapped the Morrison government’s plans for a $1.2 billion National Space Mission for Earth Observations. Japan’s budget for space is larger at US$4.4 billion in 2023, but space and cyber remain the areas of greatest vulnerability even for Japan at a time of increasing interdependence between U.S. and Japanese forces. The Albanese and Kishida governments are committed to keeping pace with the United States in space and cyber security, but the gaps are even larger than those that challenge development of conventional munitions.

At the same time, Japan, Australia, and Korea have deep pockets of excellence, such as quantum computing for Australia, semiconductor manufacturing and materials for Japan, and munitions production and semiconductors in Korea. Meanwhile, many stakeholders from the university sector, commercial manufacturing, or start-up tech firms in these countries have sat outside of the traditional defense R&D cooperation. Governments in all three countries have committed to integrating their own technology ecosystems in ways that will benefit the alliances if ways can be found to bring new technology systems from the laboratory past the “valley of death” to full-scale production and deployment in the field. This will require a new risk-taking ethos in the respective defense departments and curiosity in capital markets—but those connections are being made.
Sovereignty and the Technology of Alliance Decision-Making

The U.S. alliance with Korea rests on a joint and combined command relationship and an assumption that the UN Forces on the peninsula could be forced to “fight tonight” should North Korea break the armistice that has defined the peace since the Korean War. In contrast, Japan’s leaders could assume throughout much of the Cold War that their archipelago would serve as a rear area bastion for the flow of U.S. forces to defend Korea or Taiwan in a contingency (as happened during the Korean and Vietnam Wars). Australia by dint of geography and history was accustomed during the Cold War and post-Cold War experience to have time and space to decide when, where, and how to plug into U.S. coalition operations—as Australia always has. Canberra’s assumption was that there would be ten years warning time to prepare before an actual threat to the Australian homeland. For both Japan and Australia, geography meant that there was latitude to respond to crises in ways that ensured maintenance of sovereignty and avoidance of unwanted entrapment in U.S. military operations.

That latitude is now gone. Competition in boundaryless domains such as space and cyber, the proliferation of ballistic missiles, and the PLA’s rapidly advancing forward posture have all erased any assumption that governments could carefully manage crisis response to ensure sovereignty in decision-making. These alliances—like the U.S.-Korea alliance—must now be ready to “fight tonight.” Australia officially reached that conclusion when the 2020 “update” to the country’s existing defense strategy noted that warning time had been reduced and this was confirmed as the premise for the 2023 Defence Strategic Review. Australia, the DSR stated, was long “protected by its geography and the limited ability of other nations in the region to project power. Defence and the nation had a 10-year warning time as the foundation for planning, capability development and preparedness for conflict.” But:

In the contemporary strategic era, we cannot rely on geography or warning time. Regional military modernization, underpinned by economic development, has meant that more countries are able to project combat power across greater ranges in all five domains: maritime, land, air, space and cyber. Emerging and disruptive technologies are being rapidly translated into military capability.20 Japan’s relaxation of the ban on collective self-defense in 2015 was also premised on collapsed warning time, or as Tokyo’s 2022 National Security Strategy put it, “Japan is finding itself in the midst of the most severe and complex security environment since the end of WWII.”21

For Korea, the challenging dimension of this problem is how to connect more with the U.S.-Japan alliance trilaterally in terms of command and control, given the difficult political history between Seoul and Tokyo. When President Joe Biden hosted President Yoon Suk Yeol and Prime Minister Fumio Kishida at Camp David in August 2023, there was a conceptual step forward with the agreement to “coordinate our responses to regional challenges, provocations, and threats that affect our collective interests and security. Through these consultations we intend to share information, align our messaging, and coordinate response actions.”22 The mechanics of this new spirit of trilateral coordination are still far short of the aspirations, however.

Modernizing command and control relationships for this new era will be critical in terms of deterrence and readiness—and to define shared requirements and test operational plans in joint exercises. Yet Japan and Australia are not prepared to sign on to a joint and combined command with the United States (or in Korea’s case a comparable arrangement that includes Japan). Japan will establish its own Permanent Joint Headquarters (PJHQ) to ensure rapid decision-making and jointness among Japanese forces in a crisis. The U.S. command and control arrangements for the region remain little changed, but there are new proposals gaining traction among experts for a “hybrid” approach that would at least align Japan’s PJHQ with INDOPACOM by establishing a joint bilateral staff office that could be activated in a crisis.23 Japan and the United States have maintained a shared early warning presence at Yokota Air Force base for extended air and missile defense for years now and that also provides a useful model.24 Korean forces are now expanding joint exercises with Japan and Australia, including a sizeable Korean contingency at the September 2023 Australian Talisman Sabre exercise.25 The instinct to enhance integrated deterrence among allies is clear. The institutional solution is not.
Technology may provide a non-traditional answer, though. Just as technological change is erasing warning time and geographic borders among allies in the Pacific, it also presents new opportunities for virtual jointness and integration of decision-making in contingencies even if the command structure is not already in place. In June 2022, Lockheed Martin tested DIAMOND shield during Valiant Shield exercises which demonstrated that AI-enhanced software could connect systems and platforms to facilitate strategies, targeting, and tasking in a virtual command and control system that prioritized options for commanders. Thales Joint Fire Support System is another example of how digital technologies could create joint allied interoperability by allowing national militaries to plug into an integrated decision-making system that accelerates prioritization of tasks for disparate forces that may not have operated together before. There is no substitute for militaries knowing their counterparts from extensive joint and combined exercises, but technology could provide shortcuts when there is no other option—shortcuts that retain national sovereignty in decision-making, but serve commanders with best options to consider.

Building High Fences and Verdant Lawns

If the United States increasingly needs allies to maintain deterrence in the Indo-Pacific, this is even more the case when it comes to maintaining competitiveness in the face of Beijing’s predatory pursuit of advantage in AI and other areas of emerging technology. This recognition features prominently in both Australia’s DSR and Japan’s 2022 National Security Strategy, with Tokyo’s notable decision to establish an Economic Security Minister. The Yoon government has also declared in its National Security Strategy an intention to work closely with the United States, Japan, and other like-minded states to help secure leadership in advanced technologies such as AI and quantum computing.

Australia, Japan, and Korea were among the fastest allies to agree on preventing Huawei access to their telecommunication markets (faster than any European allies including the UK). Korea and Japan are particularly important in the race to dominate AI, given the centrality of advanced semiconductor manufacturing and the concentration of technological advancements in that field in Japan, Korea, and the Netherlands. The Biden administration achieved significant solidarity when the Hague and Tokyo agreed to move in parallel with U.S. export controls on the most advanced semiconductor manufacturing technologies in January 2023, without which the U.S. export controls of October 2022 would have been ineffective in limiting Beijing’s advancements in the field, given the dominant positions of Japan’s Tokyo Electron and the Netherlands’ ASML. Nevertheless, governments and industry in Japan, Korea, and the Netherlands are all uncertain about how far U.S. controls will go, particularly given the lack of a formal agreement like Wassenaar around the controls, and the enthusiasm of Republican presidential candidates and some in Congress to go even further in restricting exports to China. Firms in Japan and Korea recognize the need to de-risk from China, but still rely on the Chinese market for profits from lower-tech chips needed to fuel their own R&D on the more advanced variants. In short, the U.S. government cannot take allied cooperation for granted and will need to carefully coordinate the limits of technology decoupling lest the allies begin decoupling from each other. This coordination of strategies will grow even more complex as allies are asked to follow the Biden administration’s July 2023 AI principles with policies of their own.

Conclusion

As Winston Churchill famously said, the only thing worse than fighting with allies is fighting without them. But Napoleon had his own view, which was that fighting against an allied coalition was preferable because there are always seams to unwind and exploit in combat.

Technological change has expanded the domains for conflict, reduced warning time and geographical separation among allies, and necessitated the harnessing of disparate pockets of technological excellence among allies to compete in economic and military terms. The Biden administration and Congress have placed high value on U.S. alliances in the Indo-Pacific and polls show the American people agree. But the old way of managing alliances will no longer suffice. Future U.S. administrations will need to mainstream thinking about emerging technologies into their strategies for enhancing alliances bilaterally and collectively. This means:
1. Developing comprehensive technology strategies for alliances comparable to the work being coordinated at the National Security Council to protect advanced technology from China.
2. Passing ITAR reform in Congress as needed to implement AUKUS with Australia, but going further to remove systemic impediments to docking Japan, Korea, or others into AUKUS Pillar Two and promoting federated defense production efforts across alliances.
3. Utilizing AI-driven technologies to accelerate joint and integrated concepts of deterrence and to test capabilities and define requirements together without waiting for the bureaucratic process to catch up with the command-and-control structures that will be needed to respond to conflicts in the region.
4. Establishing economic security dialogues with close allies like Japan and Korea that bring the technology industries into the room with government to develop shared strategies for export controls, investment screening, and outbound investment monitoring.
5. Strengthening university and industry networks across alliances to harness advanced technologies and bring them to market and the warfighter.

The United States has a strong hand in the Indo-Pacific with technologically advanced allies that are fully committed to the alliance network built in the 1950s. But sustaining and integrating that network will require thinking based on the technologies of tomorrow and not those that defined the alliances in the Cold War.

Michael J. Green was appointed CEO of the U.S. Studies Centre at the University of Sydney where he will oversee research on security, technology, and trade policy issues in the U.S.-Australia alliance and the Indo-Pacific. Prior to his appointment, he led Asia programs at the Center for Strategic and International Studies (CSIS) and at Georgetown University where he holds the rank of full professor and Chair in Modern and Contemporary Japanese Politics and Foreign Policy. He previously served as Special Assistant to the President and Senior Director for Asian Affairs on the National Security Council staff under President George W. Bush. He has also held positions in the Department of Defense, the Council on Foreign Relations, the Institute for Defense Analyses, and the National Diet of Japan. He graduated with Highest Honors in History from Kenyon College and received his M.A. and Ph.D. from the Johns Hopkins University Paul H. Nitze School of Advanced International Studies with additional graduate and post-graduate work at Tokyo University and the Massachusetts Institute of Technology. He has a black belt in iaido (sword) and was Pipe Major of the North American and World Championship City of Washington Pipe Band. He is a member of the Council on Foreign Relations. Dr. Green’s recent books include, By More than Providence: Grand Strategy and American Power in the Asia Pacific since 1783 (Columbia University, 2017) and Line of Advantage: Japan’s Grand Strategy in the Era of Abe Shinzo (Columbia University Press, 2022). He is a member of the Aspen Strategy Group.

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