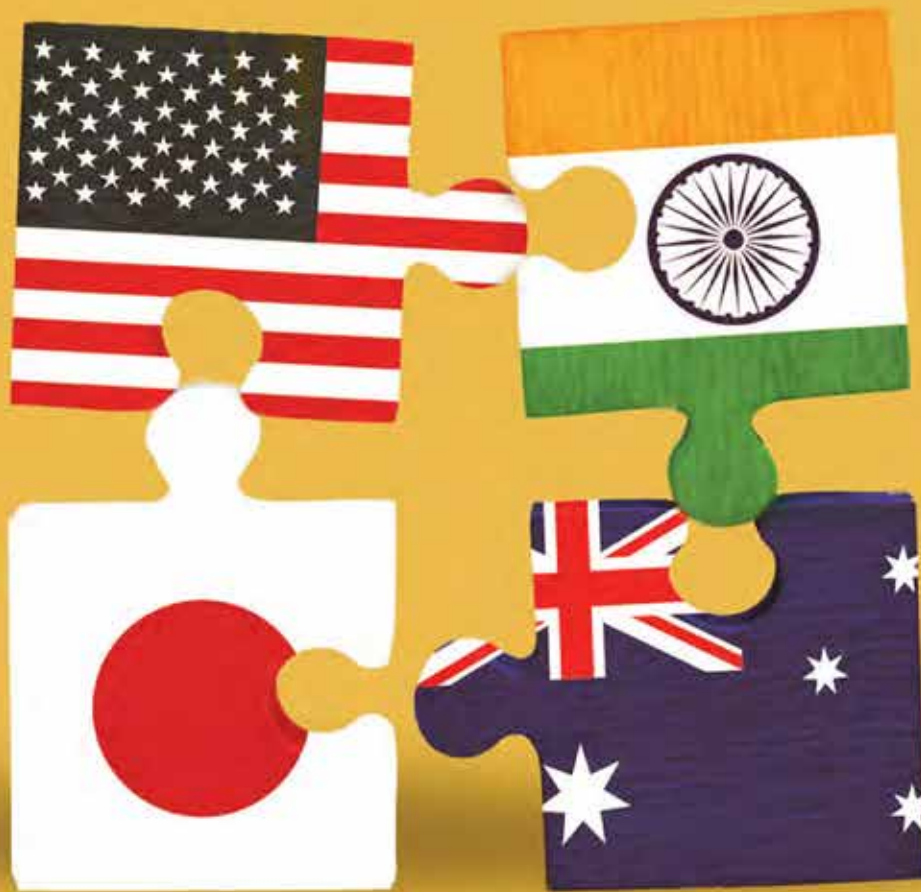


# QUAD COOPERATION: MARITIME SECURITY IN THE INDO-PACIFIC



*Editors*

Yogesh Joshi  
Nishant Rajeev

## About the Institute of South Asian Studies

The Institute of South Asian Studies (ISAS) is dedicated to research on contemporary South Asia.

It was established in July 2004 as an autonomous research institute at the National University of Singapore. The establishment of ISAS reflects the increasing economic and political importance of South Asia, and the strong historical links between South Asia and Southeast Asia.

The Institute seeks to promote understanding of this vital region of the world, and to communicate knowledge and insights about it to policymakers, the business community, academia and civil society, in Singapore and beyond.

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*Quad Cooperation: Maritime Security in the Indo-Pacific*

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Edited by Yogesh Joshi and Nishant Rajeev

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Institute of South Asian Studies

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# The Quad and the Emerging Balance of Naval Power in the Indo-Pacific

Yogesh Joshi and Nishant Rajeev

## Summary

*It has forced a recalibration of policies to address the 'China challenge' in many capitals around the world.*

*The debate over the approach to address a rising China has been ongoing since the early years of the post-Cold War era. However, the prevailing sentiment was that China could be integrated into the international liberal order and that its rise would be peaceful. However, China's increasingly belligerent activities in the past decade have called these assumptions into question. It has forced a recalibration of policies to address the 'China challenge' in many capitals around the world. Most visibly, perhaps, it has brought the Indo-Pacific's four leading democracies into the Quadrilateral Security Dialogue (Quad) coalition, moving away from the traditional 'hub and spoke' model that has maintained the balance of power in the region.*

*A key concern for the Quad has been the restructuring of the Indo-Pacific's naval balance of maritime power. With its enormous resources, the People's Liberation Army Navy (PLAN) is set to emerge at the helm of this new structure. In this introductory paper, we highlight the broad and common perception of the 'China threat' in the maritime domain that brought the four democracies together in the Quad. We then examine the Quad's emerging naval agenda and how much it has accomplished in the past 15 years to build complementarities between their respective navies. The final section of the paper provides a summary of the topics covered in this volume.*

## Introduction

Soon after Japanese Prime Minister Shinzo Abe called for the four major democracies of the Indo-Pacific to rally around the Quad in 2007, the Quad members met alongside the East Asia summit in Manila. They also arranged for a joint naval exercise in the Bay of Bengal. The Malabar naval exercise in 2007 was the first instance

where the navies of Japan, India, Australia and the United States (US) conducted joint naval exercises. Their collective naval power promised a security hedge against China's prospective rise and the threat of revisionism in the Indo-Pacific.

Several factors, however, conspired against Abe's vision for a secure and stable Indo-Pacific. Irrespective of China's substantial economic and military rise, the US remained the unchallenged hegemony in the region. China's naval challenge was yet to fully manifest itself. China too portrayed itself as a rising power, searching for accommodation rather than the revision of the US-led liberal order. The power transition between the hegemon and the rising challenger was yet to unravel. Bonds of economic integration were substantially strong, both deterring resort to violence as a costly strategy and providing alternative avenues for dispute resolution. Institutionalist forces like the Association of Southeast Asian Nations (ASEAN) remained central to the interest of all the major players and promoted the rule of law in inter-state relations over the seduction of unilateral measures in pursuit of state interests. Lastly, irrespective of the presence of long-term conflicts, the four democracies of the Indo-Pacific conducted their foreign policy in the belief that an accommodation with China would eventually be reached.

*Irrespective of China's substantial economic and military rise, the US remained the unchallenged hegemony in the region.*

The lost decade of the Quad's naval cooperation coincided with the significant restructuring of the Indo-Pacific's naval balance of maritime power. China's double-digit economic growth funnelled Beijing's military might and its appetite. Nowhere is this most visible than in the transformation of the PLAN from a coastal defence force to a highly capable, blue-water vector intent on expanding and enforcing Chinese interests and influence in the region. Between 2016 and 2020 alone, the PLAN acquired more than 80 naval combatants. Today, the PLAN is the largest maritime force in the Indo-Pacific waters. As per 2020 statistics, the PLAN fields 326 naval ships and submarines, compared to 325 by the US Navy.<sup>1</sup> The last decade has seen significant

<sup>1</sup> Megan Eckstein, "Navy releases long-range shipbuilding plan that drops emphasis on 355 ships, lays out fleet design priorities", *Defence News*, 18 June 2021, <https://www.defensenews.com/naval/2021/06/17/navy-releases-long-range-shipbuilding-plan-that-drops-emphasis-on-355-ships-lays-out-fleet-design-priorities/>.

force accretions, commissioning some of the world's largest currently produced surface-combatants, including aircraft carriers, destroyers and cruisers. The PLAN's undersea capabilities are being augmented with new nuclear-propelled attack submarines and nuclear ballistic missile submarines. Conventional naval assets have been boosted equally by asymmetric weapon systems and force multipliers. A range of ballistic and cruise missiles provides the PLAN with the ability to deny access to competing forces in the South China Sea and in the far reaches of the Indo-Pacific. Underwater drones and oceanic research vessels have been used extensively for mapping ocean topography for submarine operations. Such military capability has allowed Beijing to aggressively pursue its intentions around the region.

*In essence, China, under Xi's stewardship, wants an international order more conducive to China's growth and deferential to redlines.*

The growth of the PLAN has paralleled both an expanding set of foreign policy objectives for China as well as a more assertive posture to pursue these objectives. Under President Xi Jinping, China has promulgated the Belt and Road Initiative (BRI) to extend its geo-economic reach. Furthermore, soon after taking office in 2012, Xi highlighted a desire to aggressively push back against perceived infringements of China's core interests. This not only covered narrow issues relating to the sovereignty of Taiwan but also broader issues of the international order, including the freedom of navigation and human rights. In essence, China, under Xi's stewardship, wants an international order more conducive to China's growth and deferential to redlines.

The PLAN has emerged as a critical tool for China's pursuit of these expanded objectives. It has confronted, challenged and harassed foreign vessels in the South and East China seas. Both Indian and US naval vessels operating in international waters had been given repeated warnings to leave "Chinese waters". Along with the Chinese Coast Guard, the PLAN has also repeatedly transgressed into the contiguous zone adjacent to the disputed Senkaku Islands in the East China Sea. China's infamous fishing fleets are part and parcel of the PLAN's grey zone operations in its neighbourhood. The PLAN has also been involved in extending China's military influence beyond its neighbourhood; it now has an expanding naval presence in the Indian Ocean region. The PLAN vessels frequently make port calls

to countries where it has made BRI investments and has conducted naval exercises with friendly countries in the Indian Ocean.

Additionally, Chinese survey vessels and submarines have reportedly been tracked to the waters around India's sensitive Andaman and Nicobar Islands. To support a permanent presence in areas farther from its shores, China is attempting to establish naval bases in countries in Africa, the Middle East, South Asia, Southeast Asia and, most recently, Oceania. Thus, the heat of the Chinese naval power is being felt from the shores of Japan to the waters of the Indian Ocean.

This assertive pursuit of its objectives has brought China into direct confrontation with the Quad countries and forced them to join forces once again. In 2020, almost after 13 years, the Quad navies conducted their first joint naval exercise under the Malabar naval exercise series. Yet, in the last decade, the Quad navies have developed bilateral and trilateral defence relationships to exchange information, augment capabilities, foment interoperability and build trust. The Indo-Pacific's geopolitical balance of power requires a naval balance of power in the region, a mission resting on the shoulders of the Quad navies.

*The Indo-Pacific's geopolitical balance of power requires a naval balance of power in the region, a mission resting on the shoulders of the Quad navies.*

## The Emerging Naval Agenda

Despite seeing a common threat in China, the four Quad countries perceive the military threat differently. This is due to the nature of the challenge that China poses to each of the Quad states. For the US, China's Anti-Access Area Denial (A2AD) capabilities have successfully created dilemmas for American intervention on behalf of its allies and partners in East and Southeast Asia. This has allowed the PLAN to act with impunity in the region, especially regarding its grey zone operations. The prospect of eroding US naval primacy in the region has created severe anxiety in Washington. Finally, the US continues to grapple with a Russian threat against its European allies. Russia's invasion of Ukraine in February 2022 has laid bare Russian President Vladimir Putin's imperialist intentions and desire to use force to establish a Russian sphere of influence. Thus, the US needs to divide and prioritise resources and capabilities between two separate fronts

*The land boundary dispute between India and China has intensified in the past decade while the PLAN has been increasing its forays into the Indian Ocean.*

to meet two different threats. For Japan, the Chinese claims over the Senkaku islands are its primary threat vector. China's aggressive push to challenge Japanese sovereignty over the islands and deployment of A2AD capabilities to deter US intervention has forced the latter to revisit its security policy. India, on the other hand, faces a twin threat from China along its land borders and maritime frontier. The land boundary dispute between India and China has intensified in the past decade while the PLAN has been increasing its forays into the Indian Ocean. Hence, India has to prioritise its scarce resources and capabilities between its continental and maritime frontiers. Australia does not have any territorial dispute with China. However, being predominantly a maritime nation, Australia fears a revisionist China whose coercive actions may threaten maritime and economic security in the region and undermine a global order that has, thus far, fostered stability as well as supported Australia's growth and development.

These differing threat perceptions have a significant bearing on how each Quad member plans for future conflicts, structure and develop their forces and train their personnel. It will guide the Quad countries' efforts to acquire new capabilities and allocate resources, financial or otherwise, to bolster their capabilities. Since the Quad is not a military alliance (yet), jointly developing and deploying forces to combat the China threat can prove to be a challenge. Firstly, as noted above, not all the Quad countries have to deal with the PLAN threat equally. Secondly, each Quad country has different domestic requirements and capabilities. Therefore, their ability to develop and field the necessary forces to counter the PLAN may vary.

Finally, each Quad member has a different relationship with each of the other members. India is the newest entrant into the US' efforts to counter China, shifting from its previous non-aligned posture. Its defence relationship with the US is still growing, while India only has fledgling defence relationships with Japan and Australia. Moreover, Japan and Australia lacked a strong defence relationship. While they have been part of the 'hub and spoke' Cold War US alliance model in Asia, these two bilateral treaty alliances were developed relatively independent of each other. All these factors can potentially obstruct

the development of a united front against the PLAN threat. Hence, it is necessary for all the members to synergise their efforts to combat the rise of Chinese maritime power in the Indo-Pacific.

What has been observed in recent years is an effort to develop a common naval agenda for the Quad. Specifically, the members have focussed on anti-submarine warfare and maritime domain awareness, considering China's advancing submarine capabilities. The Malabar naval exercises feature these two themes quite prominently. However, more broadly, the exercises also serve as an avenue to familiarise each country's navy with the platforms and operational doctrines of the other Quad states. However, there continues to be substantial ground to cover in terms of a strategic distribution of responsibilities, developing common operational concepts or operating as a joint force in the event of a conflict.

## Progress Thus Far

The Malabar naval exercises were being conducted with all four members after nearly 13 years of the first edition in 2007. However, in the interregnum, the Quad countries worked to build their bilateral and trilateral relationships. They have made substantial progress in increasing arms sales, furthering interoperability, and sharing logistics and intelligence. The US has long been a supplier of arms and equipment to Japan and Australia by virtue of them being treaty allies. The US has also emerged as a key weapons supplier to India. All the Quad countries have been conducting bilateral and trilateral naval exercises to enhance interoperability and joint operations. The Quad members have signed agreements to streamline logistics sharing, thereby expanding the reach of their respective naval forces. The four navies have also worked to build capabilities to improve the collection and sharing of information in and of the maritime domain, enabling them to monitor the PLAN efficiently as it expands beyond China's backyard.

*All the Quad countries have been conducting bilateral and trilateral naval exercises to enhance interoperability and joint operations.*

The ability to take forward what has been achieved thus far, however, will determine the success or failure of the Quad. There are significant

challenges facing the Quad as it moves forward with its maritime agenda. Most arms transfer and sales have been predominantly one-directional, emanating from the US to the other partners. Sharing of logistics and interoperability efforts are piecemeal. They have a long way to go from the current situation to a “business as usual” model. Intelligence sharing is still impeded by a trust deficit, while maritime domain awareness is challenging simply due to the vast expanse of the Indo-Pacific.

The four Quad countries also differ in their approach to the freedom of navigation on the high seas and understanding of the United Nations Convention on the Law of the Sea declaration. Differences are especially acute in interpreting “innocent passage” and the limits thereof. These divergent interpretations can have a consequence on the Quad’s approach to challenging China’s claims in the South and East China seas. It can impede a joint effort to conduct freedom of navigation operations to challenge China’s claims, a topic that has been circulated in the media as a possible avenue for cooperation amongst the Quad navies. Inconsistencies can further risk validating some of China’s positions and claims in the South and East China seas.

*Balancing would entail the ability of all the Quad partners to operate forces that are capable of deterring conflict.*

However, cooperation in these areas is critical. The growth of the PLAN fuelled by China’s strong economic performance highlights that the US is not suitably placed to take on the China threat unilaterally. Thus, efforts to balance against China and share the burden of upholding the international maritime order needs to be distributed such that all partners are able to contribute equally. Balancing would entail the ability of all the Quad partners to operate forces that are capable of deterring conflict. This would need more than simply procuring equipment but rather developing and creating capabilities to prepare for long-term competition. Similarly, burden sharing is simply not an issue of distribution of responsibilities but also of being able to operate coherently with each other towards a common objective. It would involve at least some degree of interoperability between the four navies, sharing a common perception of the operating environment and doctrinal coherence.

Thus, activities over the past decade have given the Quad countries a platform to build on just as they come together in the quadrilateral format. The Malabar naval exercise in 2020, which saw the participation of all four Quad members, signalled the political will to take the military dimension forward. Its success will now be determined by ‘how’ they move forward rather than ‘if’.

## Structure of this Volume

This volume brings together expert analyses from across the Quad countries to analyse its progress thus far, identify gaps in the approach of the Quad members and point out future challenges. It explores the doctrinal evolution of the Quad navies considering the PLAN’s growing threat, its efforts to rationalise a joint approach and their understanding of international maritime law.

The first section of the volume explores the military challenges facing the Quad’s navies as the PLAN develops into a genuine blue-water navy and expands its A2AD shield over larger parts of the Indo-Pacific.

As the leading naval power in the world, the US is expected to provide the anchor while the other navies develop their efforts. Samir Puri and Jeremy Lau Yi-Ren explore how the US military has been attempting to cope with China’s A2AD challenge. This has spurred a new line of thinking within the US Department of Defence that two decades of unconventional conflict in the Middle East has led to an erosion of deterrence in the Indo-Pacific. The two authors highlight the US Navy and US Marine Corp’s approach toward distributed force architectures to reduce the vulnerability of their forces to China’s long-range missiles. This doctrinal shift is underpinned by key acquisitions to support distributed architectures and training exercises to test the capabilities.

*This doctrinal shift is underpinned by key acquisitions to support distributed architectures and training exercises to test the capabilities.*

Yoji Koda explains Japan’s approach to coping with the China challenge. He illustrates the roles and responsibilities of the US and Japanese navies in the event of a conflict in the East China Sea. However, doctrinal evolution within the Japanese Navy is pushing it to take

on larger responsibilities. This would draw it away from its primary mission of island defence and supporting the US Navy operations in Japan's littorals.

Sudarshan Shrikhande provides an overview of the challenges faced by the Indian Navy in the Indian Ocean. This is not simply a question of PLAN deployments in the Indian Ocean Region (IOR) but also balancing resources between a continental and maritime threat. He then provides an overview of India's approach to securing its maritime frontier through a doctrine based on sea control, especially considering the growing multi-dimensionality of the IOR environment.

The second part of the volume explores the 15 years of naval cooperation amongst the Quad partners, their accomplishments and the challenges ahead.

*The adoption of common platforms can enhance interoperability between the Quad navies.*

In their joint paper, Nishant Rajeev and Yogesh Joshi analyse arms sales and transfers between the Quad's member states. The adoption of common platforms can enhance interoperability between the Quad navies. However, current arms sales are predominantly unidirectional, with the US being the key supplier, despite each Quad member having its own naval shipbuilding capability. Thus, continued reliance on the US highlights the critical shortcomings in the naval programmes of the remaining Quad countries. Finally, they point to growing areas of cooperation that can boost arms transfers in the future.

David Brewster looks at the issue of interoperability between the Quad navies. While the Japanese and Australian navies have a high degree of interoperability with the US, they are yet to develop their bilateral naval relationship. India, on the other hand, continues to be an outlier. While some progress has been made to be interoperable with the US Navy, the Indian Navy has a fledgling relationship with the Japanese and Australian navies. He stresses the need to enhance interoperability and logistics sharing to a point where it is a 'business as usual' model.

Sarabjit S Parmar explores the issue of maritime domain awareness and intelligence sharing between the Quad navies. He also highlights the need for an inclusive and multi-stakeholder approach to the Maritime Domain Awareness and the need to overcome a trust deficit if intelligence is to be shared freely between the Quad navies.

The Quad's agenda also involves a normative dimension and an effort to bolster international maritime law. Hence, the final set of papers looks at the Indian, Japanese and Australian positions and interpretations of international maritime law and freedom of navigation operations.

Donald R Rothwell explains Australia's position on the freedom of navigation, especially provisions on innocent and transit passage. Australia has broadly supported the international regime on both innocent and transit passage, though military activity remains a point of contention for many states in the Indo-Pacific. He points out that Australia resists constraints on the freedom of navigation and supports American policy positions and operations, especially in the South China Sea.

Joshi then examines how India's approach to the freedom of navigation differs from that of the other Quad countries. He highlights the distinction between interpretations of freedom of navigation in domestic laws of India that is at odds with the western interpretation and the laws' practical application. He states that India, in practice, is more tolerant of the western interpretation and that India's practices do not reflect its domestic laws or its interpretation of International Law.

Finally, Phedra Neo Pei En, Rajeev and Joshi analyse the Japanese position and state that although Japan supports provisions on the freedom of navigation, its interpretation has varied depending on Chinese activity. The three authors point to grey zone activities that Japan cannot consider as "innocent" passages as these activities challenge sovereignty. They then highlight a way forward for the Quad to bolster the international maritime regime.

# **PART 1**

## **SHIFTING NAVAL BALANCE OF POWER IN THE INDO-PACIFIC AND THE ROLE OF THE QUAD**

# The Naval Balance of Power in the Indo-Pacific and the Role of the Quad: The United States' Perspective

Samir Puri and Jeremy Lau Yi-Ren

## Summary

*The strategic context in the Indo-Pacific has shifted from an era of United States (US) maritime dominance to great power competition with China. The changing balance of naval power in the Indo-Pacific is of acute concern to the US Navy. Aside from its plans to procure new naval platforms, the US Navy has explored the utility of a new doctrine for a distributed fleet architecture that can respond to the Anti-Access Area Denial (A2AD) capabilities and grey zone contingencies. There is an ongoing debate about the size and composition of the future fleet needed to carry out this change. All this while, the US Navy has continued its presence in the Indo-Pacific through the Freedom of Navigation Operation (FONOPs) and exercises, restating the US' commitment to the region.*

## Introduction

As the Indo-Pacific strategic environment shifts from an era of US maritime dominance to great power competition, it is useful to locate this shift in a wider historical context. Indeed, we can discern much from the long arc of imperial history. Long before the advent of communist rule in 1949, imperial China had a far stronger record of inland over maritime hegemony. Now, in challenging the maritime dominance of the US, Europe and Japan, China is attempting something unprecedented in its long history.

*Now, in challenging the maritime dominance of the US, Europe and Japan, China is attempting something unprecedented in its long history.*

Maritime dominion in Asia has been mainly a Western prerogative since the age of the colonial empire. China's Ming dynasty briefly flirted with its own voyages of exploration under Admiral Zheng He but ceased competing in the naval race after 1433. Thereafter, Imperial China did not evolve as a dominant naval power. This was

a fatal vulnerability in the 19<sup>th</sup> and 20<sup>th</sup> centuries during and after the Qing dynasty. China suffered British naval bombardment and coastal landings in the Opium War that began in 1839. In 1900, the Eight Power Alliance soldiers landed by sea in the Boxer Rebellion and marched inland to Peking. And, in 1931, Japan's army invaded Manchuria by way of a seaborne assault.<sup>1</sup> It is unsurprising, therefore, that China currently seeks naval modernisation and expansion.

The US has been a Pacific power ever since its resounding victory in the Spanish-American War at the turn of the 20<sup>th</sup> century. The Panama Canal was completed shortly afterwards, allowing the US fleet to transit between the Atlantic and Pacific Oceans. This proved vital in the Second World War, and the US military presence in the Pacific lives on as a legacy of the defeat of Imperial Japan. Garrisons on the US island territory of Guam and the Japanese island of Okinawa remain two of the primary concentrations of force from which the US seeks to project its naval dominance of the Indo-Pacific.

*For the US Navy, such vast distances have always been a core reality in its ability to patrol in the Pacific.*

In addition to history, geography is a vital ingredient for strategic analysis. It is sobering to consider the sheer distances to be covered in the Pacific. The Port of Guam is 1,875 nautical miles from the Port of Keelung in Taiwan. Travelling at 30 knots, and depending on the vessel, the voyage may take 2.6 days. The distance between Okinawa Port and Port of Keelung is 380 nautical miles and travelling at 30 knots; the voyage may take half a day.<sup>2</sup> For the US Navy, such vast distances have always been a core reality in its ability to patrol in the Pacific. Therefore, the ability to deploy US vessels far from their home ports for extended periods – the very essence of a blue water navy – has been crucial.

This paper takes stock of how the US approaches these tasks in a changing strategic context. It draws on policy statements by the US Navy; observations by senior officers; a Congressional Research Service report on 'Navy Force Structure' published on 22 February

<sup>1</sup> Samir Puri, "Land and Sea: The Evolving Great-power Contest in Asia", *Survival* 64, no.1 (2022): pp. 227-236; and *The Great Imperial Hangover: How Empires Have Shaped the World* (London: Atlantic Books, 2020), pp. 171-175.

<sup>2</sup> "Sea Distance Calculator No. 1", Ship Traffic, <http://www.shiptraffic.net/2001/05/sea-distances-calculator.html>.

2022; and the International Institute for Strategic Studies' (IISS) *The Military Balance* publication, which provides annual assessments of military capability.

## The US' Views of the Changing Balance of Indo-Pacific Maritime Power

The US Navy must now compete with the modernisation of the People's Liberation Army Navy (PLAN). As the IISS has assessed in the latest *The Military Balance 2022*:

"China's naval expansion continues with the second Type-075 Yushen landing helicopter dock now commissioned, and the third on trials and possibly commissioning during 2022, the PLAN has been moving rapidly to fill a gap in its amphibious capability. Its other blue-water capabilities continue to mature. The first of the Type-055 Renhai cruisers is already featuring prominently in some high-profile deployments, with other ships of the class now in service and likely also to begin deploying. Overall, the PLAN may be reaching the point in its capability development when it will begin to undertake more substantial long-range deployments to step up its blue-water presence."<sup>3</sup>

*The US Navy must now compete with the modernisation of the People's Liberation Army Navy (PLAN).*

As the previous head of the US' Indo-Pacific Command, Admiral Philip S Davidson, explained in a 2021 testimony:

"The greatest danger for the US is the erosion of conventional deterrence...As the military balance in the Indo-Pacific becomes more unfavourable to the US, we are accumulating additional risk that may embolden our adversaries and competitors to attempt unilaterally changing the status quo..."<sup>4</sup>

<sup>3</sup> *The Military Balance 2022 – Further Assessments*, The International Institute for Strategic Studies, 15 February 2022, <https://www.iiss.org/blogs/analysis/2022/02/military-balance-2022-further-assessments>.

<sup>4</sup> Philip S Davidson, "Statement Of Admiral Philip S. Davidson, US Navy Commander, US Indo-Pacific Command Before The House Armed Services Committee On U.S. Indo-Pacific Command Posture", 10 March 2021, p. 41, <https://docs.house.gov/meetings/AS/AS00/20210310/111316/HHRG-117-AS00-Wstate-DavidsonP-20210310.pdf>.

How far has the US come since these warnings? And what is the significance of China having launched a third more naval tonnage than the US since 2015? The US declared in 2016 its ambition to reach a 355-ship target (a far cry from the Regan-era goal of a 600-ship Navy), but how far has it got? And, ultimately, can mass and quantity of naval power still translate to naval dominance?

### Emerging US Naval Doctrines and Naval Warfare Trends

*In the post-Cold War period, the US was unmatched in the maritime sphere, enabling its Navy to project power with its carrier strike groups.*

In the post-Cold War period, the US was unmatched in the maritime sphere, enabling its Navy to project power with its carrier strike groups. This tradition of large surface vessels has been challenged by the advent of “faster, more precise, more manoeuvrable and longer-range anti-ship missiles, advancing submarine capabilities and emerging technology challenges such as swarming and autonomous systems.”<sup>5</sup>

The US Navy has shifted its focus towards a more distributed fleet architecture which can perform a greater variety of missions in the face of A2AD capabilities and grey zone challenges at sea. Larger operations would include multiple carriers and the integration of allied capabilities with the United Kingdom, Japan and Australia. What doctrines has the US Navy developed?

*The Distributed Maritime Operations (DMO)* and a supporting Marine Corps operational concept called *Expeditionary Advanced Base Operation (EABO)* are central to this. “A key aim of the DMO and EABO is to improve the ability of the Navy and Marine Corps to counter China’s improving maritime military capabilities”, according to the Congressional Research Service.<sup>6</sup>

The DMO seeks to respond to great power competition by moving away from a concentrated force to smaller hybrid distributed fleets capable

<sup>5</sup> *The Military Balance 2021*, The International Institute for Strategic Studies, February 2021, p. 10, <https://www.iiss.org/publications/the-military-balance/the-military-balance-2021>.

<sup>6</sup> Congressional Research Service, “Navy Force Structure and Shipbuilding Plans: Background and Issues For Congress”, 22 February 2022, p. 6.

of forward operations. The Navy would operate multiple fleets for diverse operation needs covering sea control of large expanses, sea-denial and fast response to threats. The Navy could take the initiative against adversaries and impose operational dilemmas.<sup>7</sup>

*The Navy could take the initiative against adversaries and impose operational dilemmas.*

Essential to this concept is the integration of cyber, space, air-water, land and uninhabited platforms to allow the Navy to operate across all domains.<sup>8</sup> The downside is a lack of mass, and for the DMO to work, the Navy must process, manage and disseminate information in a way that each fleet can operate in a coordinated way to achieve a centralised objective.

Complementing the DMO, the EABO focusses on the role of the US Marine Corps (USMC) within the Indo-Pacific. According to the USMC:

“[The] EABO is a form of expeditionary warfare that involves the employment of mobile, low-signature, operationally relevant, and relatively easy to maintain and sustain naval expeditionary forces from a series of austere, temporary locations ashore or inshore within a contested or potentially contested maritime area in order to conduct sea denial, support sea control, or enable fleet sustainment.”<sup>9</sup>

The USMC will operate sustainable forward deployments within the range of adversary long-range precision fire due to its mobile low-signature forces. The USMC’s amphibious role equips it to contest the small islands in the Indo-Pacific. This provides the USMC with the capability to counter day-to-day competition and project a more assertive posture in daily operations.<sup>10</sup>

<sup>7</sup> Edward Lundquist, “DMO Is Navy’s Operational Approach To Winning The High-End Fight At Sea”, Seapower Magazine, 2 February 2021, <https://seapowermagazine.org/dmo-is-navys-operational-approach-to-winning-the-high-end-fight-at-sea/>.

<sup>8</sup> Christopher W Grady, “2019 Surface Navy Association (SNA) Symposium”, 17 January 2019, US Fleet Forces Command, <https://www.usff.navy.mil/Leadership/Commander/Speeches/SNA-Symposium-2019/>.

<sup>9</sup> Headquarters Marine Corps, “Expeditionary Advanced Base Operations (EABO)”, US Marine Corps, 2 August 2021, <https://www.marines.mil/News/News-Display/Article/2708120/expeditionary-advanced-base-operations-eabo/>.

<sup>10</sup> Marine Corps Association, “Expeditionary Advanced Base Operations (EABO) Handbook”, 1 June 2018, p. 5, <https://mca-marines.org/wp-content/uploads/Expeditionary-Advanced-Base-Operations-EABO-handbook-1.1.pdf>.

In addition, the ‘Littoral Operations in a Contested Environment’ concept integrates the Navy and the USMC in joint littoral operations. A key challenge is the integration of a command-and-control system for the two forces to conduct an operation effectively. The Navy and the USMC have been conducting workshops and wargames to implement this concept.<sup>11</sup>

These concepts in their latest incarnations are relatively new and implementation presents challenges. Chief of Naval Operations Admiral Mike Gilday said, “I think about [the] EABO and right now it’s a concept. How can we exercise that at the fleet level?”<sup>12</sup> When considering the Indo-Pacific, its size presents immense logistical and information network problems. Integration and implementation, especially with new domain capabilities such as uninhabited platforms, will take time to operationalise effectively.

## US Naval Platforms Development

*Facing a rising China, the US has thought seriously about its future force structure.*

Facing a rising China, the US has thought seriously about its future force structure. The Integrated Naval Force Structure Assessment (INFSA), designed to reassess the 355-ship goal, was planned for release in 2019 but was delayed and eventually superseded by the Future Naval Force Study (FNFS), which has yet to be issued. In the ‘Navy Force Structure and Shipbuilding Plans’ research paper released by the Congressional Research Service on 22 February 2022, Admiral Gilday suggested that the Navy ultimately needs a fleet of 512 ships, comprising 362 manned ships and 150 unmanned ships.<sup>13</sup>

As *The Military Balance 2022* reported, the Navy’s FY2022 budget request included eight new ships, a couple of ships short of achieving the goal of a 355-ship navy.<sup>14</sup> The report goes on to explain that:

<sup>11</sup> Marine Corps Association, “Littoral Operations in A Contested Environment”, 2017, p. 6, <https://mca-marines.org/wp-content/uploads/Littoral-Operations-in-a-Contested-Environment.pdf>.

<sup>12</sup> Mike Gilday, “CNO Speaks At USMC Executive & General Officer Offsite Symposium, 19 September 2019”, US Navy Office of Information, 19 September 2019, <https://www.navy.mil/Press-Office/Speeches/display-speeches/Article/2296733/cno-speaks-at-usmc-executive-general-officer-offsite-symposium-sept-19-2019/>.

<sup>13</sup> Congressional Research Service, “Navy Force Structure and Shipbuilding Plans: Background and Issues For Congress”, op. cit., p. 8.

<sup>14</sup> “The Military Balance 2022”, The International Institute for Strategic Studies, p. 33, <https://www.iiss.org/publications/the-military-balance>.

[For the US Navy] top priority is the Colombia Class SSBNs [Ballistic Missile Submarines], 12 of which slated to replace the 14 Ohio class SSBNs. Other key project is the Constellation Class frigate. The much-delayed new carrier, USS Gerald R Ford, may be finally ready for deployment in 2022. USS Carl Vinson undertook its first operational carrier deployment into the Pacific with F-35C and Osprey incorporated into its air wing.<sup>15</sup>

The key developments are the increase of the proportion of smaller ships such as frigates and the introduction of uninhabited platforms. However, to even achieve the 355-ship goal, much less than the suggested 512 ships, the Navy's budget would require an average of US\$12 billion (S\$16 billion) more per year. If the budget remained at current levels, only 302 to 310 ships could be maintained.<sup>16</sup>

Overall, the future US Navy is set to take steps towards becoming a hybrid fleet. As *The Military Balance 2022* assesses, "Uncertainty remains over plans to increase the size of the [US Navy] fleet, there has been a focus on an eventual fleet that is more distributed, with a shift in balance to smaller surface combatants and significant numbers of uninhabited surface and underwater vehicles."<sup>17</sup>

*Overall, the future US Navy is set to take steps towards becoming a hybrid fleet.*

## **US Naval Exercises and Operations in the South China Sea, 2020-21**

As future-focussed discussions and procurements take shape, the US Navy remains actively involved in staking out its presence in the increasingly contested South China Sea. As *The Military Balance 2022* reports, "A high operational tempo continued in 2021, including freedom of navigation operations in and around the South China

<sup>15</sup> Ibid, p. 33.

<sup>16</sup> Congressional Research Service, "Navy Force Structure and Shipbuilding Plans: Background and Issues For Congress", op. cit., p. 21.

<sup>17</sup> "The Military Balance 2022", op. cit., p. 32-33.

Sea. Transits of the Taiwan Strait were being conducted at a rate of approximately one a month, on par with 2020.”<sup>18</sup>

*The US regularly conducts the FONOPs, and China rebukes them.*

The US regularly conducts the FONOPs, and China rebukes them. For several FONOPs, China claims to have expelled the US Navy from its waters, and in response, the latter claims this to be untrue.<sup>19</sup> Incidents have occurred in the past, such as when a Chinese warship sailed within 45 yards of the USS Decatur near the Spratly Islands in 2018.<sup>20</sup> However, apart from the first FONOP conducted under the Biden administration on 5 February 2021, FONOPs have received lower media attention.

Exercises are also an important part of naval preparedness, the scale of which is notable:

“In August 2021, Carl Vinson strike group took part in the navy’s Large-Scale Exercise 2021, which incorporated five carrier strike groups and four amphibious groups and ranged across the west and east coasts of the US, the European theatre and western Pacific. It was designed to test doctrines for high-end combat, including the Navy’s Distributed Maritime Operations concept, as well as the USMC’s Expeditionary Advanced Base Operation and Littoral Operations in a Contested Environment concepts.”<sup>21</sup>

Multinational exercises are also an important part of the US approach. The US Navy played a major role in the Malabar naval exercise 2021, the annual naval exercise of the Quadrilateral Security Dialogue (Quad). The 2021 edition featured two phases: Phase One in the Philippines Sea and Phase Two in the Bay of Bengal. Additionally, there was an extra Naval Special Warfare exercise conducted in Guam.

<sup>18</sup> Ibid, p. 33.

<sup>19</sup> The FONOPs conducted on 20 May, 12 July, 8 September 2021 and 20 January 2022 had this pattern.

<sup>20</sup> Steven Stashwick, “‘Unsafe’ Incident Between US And Chinese Warships During FONOP”, *The Diplomat*, 2 October 2018, <https://thediplomat.com/2018/10/unsafe-incident-between-us-and-chinese-warships-during-fonop/>.

<sup>21</sup> “The Military Balance 2022”, op. cit., p. 33.

In Phase One, the US Navy participated with the Arleigh Burke-class guided-missile destroyer USS Barry with maritime patrol and reconnaissance aircraft from Task Force 72 and the oiler USNS Rappahannock. In Phase Two, the aircraft carrier USS Carl Vinson, Ticonderoga-class guided-missile cruiser USS Lake Champlain, Arleigh Burke-class guided-missile destroyer USS Stockdale, and P-8A Poseidon maritime aircraft participated.<sup>22</sup> The Naval Special Warfare conducted a Special Operations Forces Phase on “interoperability and information-sharing, to include practising high-end tactics in complex maritime environments”.<sup>23</sup>

## Conclusion

All of this will be tested in a hypothetical future crisis over Taiwan. It is unlikely that the US naval response during the Bill Clinton presidency to a Taiwan crisis – of dispatching US carrier groups in a show of strength – would suffice now that the PLAN has expanded its capabilities. However, as events in Ukraine demonstrate, the US cannot go in it alone in defending its maritime vision of the Indo-Pacific since its strategic attention can suddenly be dragged to very different parts of the world. Indeed, just five months elapsed between the US withdrawal from Afghanistan and the Ukraine crisis, blocking the Indo-Pacific once again from being the priority of US strategic attention. For all these reasons, burden sharing with allies in the Indo-Pacific has become more important than ever to the US.

*For all these reasons, burden sharing with allies in the Indo-Pacific has become more important than ever to the US.*

<sup>22</sup> Task Force 71 Public Affairs, “Australia, India, Japan, U.S. Kick Off Exercise Malabar 2021”, US Indo-Pacific Command, 26 August 2021, <https://www.pacom.mil/Media/News/News-Article-View/Article/2748502/australia-india-japan-us-kick-off-exercise-malabar-2021/>; and Carrier Strike Group 1 Public Affairs, “Australia, India, Japan, And U.S. Kick-off Phase II: Malabar 2021”, US Indo-Pacific Command, 13 October 2021, <https://www.pacom.mil/Media/News/News-Article-View/Article/2809399/australia-india-japan-and-us-kick-off-phase-ii-malabar-2021/>.

<sup>23</sup> Amara Timberlake, “Naval Special Warfare Wraps Up Special Operations Forces Phase Of MALABAR With Partner Nations”, US Indo-Pacific Command, 10 September 2021, <https://www.pacom.mil/Media/News/News-Article-View/Article/2771222/naval-special-warfare-wraps-up-special-operations-forces-phase-of-malabar-with/>.

## Japan's Role in the Quad's Naval Power Balance

Yoji Koda

### Summary

*The Quadrilateral Security Dialogue (Quad) is not a treaty organisation or coalition group. It is simply a gathering of four like-minded nations – Japan, the United States (US), Australia and India. Having said this, the Quad nations have several key things in common, such as democracy, freedom of various social activities, a rules-based community, a certain level of naval power and a free and open Indo-Pacific policy. In other words, these common factors have been the bonding agents of the Quad members for many years.*

*Under the above framework, Japan's role and some key subjects of the Quad from Japan's perspective that focus on the Japan Maritime Self-Defense Force (JMSDF) – its military objectives in the Indo-Pacific region, challenges it faces, its capabilities and doctrinal shortfalls – are discussed in this paper.*

### What is the Quad for Japan?

*At the same time, each Quad country faces its own distinct realities and issues, which sometimes do not correspond with the other members.*

While the Quad is a gathering of four like-minded nations, these nations have some common traits, namely, democracy, freedom of social activities, a rules-based community, a certain level of naval power and a desire for a free and open Indo-Pacific. These common features have bonded the Quad nations. At the same time, each Quad country faces its own distinct realities and issues, which sometimes do not correspond with the other members. India is a special case – it has several policy differences from the other three countries, such as its nonaligned policy, omnidirectional diplomacy and historically close ties with Russia. Therefore, one of the special considerations for the four nations is that the Quad is not a security or military-tailored gathering; rather, it is a joint effort to tackle various shared issues that would challenge the welfare and stability of humanity. In this context, the Quad is a group of like-minded nations that will loosely cooperate and coordinate with one another to establish common objectives of

humanity. Even so, it is true that China-related issues have become the most important concern for the Quad and will continue to be so in the coming years.

## The Quad Summit Meeting

As mentioned above, one of the Quad's typical characteristics is its non-binding principle in developing common policies and their execution. True to this principle, the first Quad summit meeting was held in Washington on 12 March 2021. The leaders of the four countries discussed various subjects of shared concern and agreed on the following key principles:<sup>1</sup>

- i. Free and open Indo-Pacific.
- ii. A region that is free and open, inclusive, healthy, anchored by democratic values and unconstrained by coercion.
- iii. Free, open and rules-based order, rooted in international law.
- iv. Rule of law, freedom of navigation and overflight, peaceful resolution of disputes, democratic values and territorial integrity.
- v. Strong support for the Association of Southeast Asian Nations' (ASEAN) unity and centrality as well as the ASEAN Outlook on the Indo-Pacific.
- vi. Uphold peace and prosperity and strengthen democratic resilience, based on universal values.

The elocution of such principles is neither new nor surprising since the Quad countries have explicated and embraced these principles both as national policy as well as in many bilateral, trilateral and multilateral forums. However, special attention should be paid to the intent of the Quad leaders in highlighting the importance of ASEAN's role in this region. In other words, they do not want to make the Quad a 'gold-membership club' which excludes other regional nations. Instead, the intention is to mould it into a cooperative entity to solve regional issues and pursue commonly established objectives.

*Even so, it is true that China-related issues have become the most important concern for the Quad and will continue to be so in the coming years.*

<sup>1</sup> The Quad Leaders' Joint Statement: "The Spirit of the Quad", The White House, 12 March 2021, <https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/12/quad-leaders-joint-statement-the-spirit-of-the-quad/>.

## Focus on India

*This would help to build stability and security in the region by silently keeping China in its field of view and maintaining a favourable balance of power in the region.*

Understanding India's uniqueness, the US, Japan and Australia have abstained from forcing New Delhi to adopt an approach favouring the Quad or China. Rather, the three nations generally accept India's strategic autonomy to the extent that its actions do not hinder or hurt the Quad's efforts to achieve its common objectives. The US, Japan and Australia are long-time partner nations in two different alliance treaties. So, coordination among those three nations is much easier compared with India, especially in the security arena. However, considering the current political and economic situations and geography in the Indo-Pacific region, it is natural and inevitable for the US, Japan and Australia to invite India into a group of like-minded nations and form a loosely bound joint effort. This would help to build stability and security in the region by silently keeping China in its field of view and maintaining a favourable balance of power in the region. India is the core factor behind the non-binding character of the Quad. However, the tighter the bind, the better the Quad would function. So, more diplomatic efforts will be necessary to convert the current Quad to a semi-alliance or alliance-like security structure.

Another characteristic of the Quad is that it does not finger-point China as a nation of concern, a competitor or a threat. Based on China's self-righteous manoeuvres and military expansion over the last two decades, the Quad could have specified China as a nation of concern, but it chose not to. Concerns over China are already being expressed in arenas such as the Group of Seven (G7), the North Atlantic Treaty Organization (NATO) and the European Union, and in both the US-Japan as well as the US-Australia joint statements. Therefore, it would be wise for the Quad not to specify China as its primary target. There are several reasons behind such a policy. The first is the India factor, especially its non-aligned and omnidirectional diplomacy, special relationship with Russia, and New Delhi's complicated policy and relations with China and nuclear-armed Pakistan. The second is the intent to avoid the creation of a 'Counter China Club'. A wiser move in this regard is to broaden participation so that the ASEAN member

states could also participate in the Quad's efforts in the Indo-Pacific. The third is a similar intent to avoid narrowing the Quad's focus to purely security and expand its scope to include larger common subjects such as supply chains, digital connectivity, high-technology cooperation, climate change, pandemic, energy, sustainability and resilience, among others.

The Quad members believe that by fully realising these three points, it would be much easier to develop and build a functioning multi-purpose collaboration in the Indo-Pacific region instead of relying on only the Quad's efforts. Some may criticise such harmless gestures of the Quad. However, the real objective of the Quad's friendly actions is to develop the best effort to handle significant common challenges and difficulties with active cooperation from all regional players, especially concerning threats emanating from China.

## China's Response

Naturally, China is not pleased with the formation of the Quad and its actions. China has often condemned the Quad as a product of the Cold War concept and has labelled it "today's version of NATO in Asia".<sup>2</sup>

China's position is politically understandable. However, considering China's actions and manoeuvres in the region, as many organisations as possible must be formed in an attempt to control Beijing's willful adventurism. The US, Japan, Australia and India occasionally take independent and collective action against China's hegemonic manoeuvres. As China and its military continue to make hard moves in the region, there is no sign of things calming down. In such a situation, the Quad and a new entity – AUKUS (comprising the US, the United Kingdom and Australia) – are expected to work together to check China's crafty manoeuvres at sea.

*The US, Japan, Australia and India occasionally take independent and collective action against China's hegemonic manoeuvres.*

<sup>2</sup> C Raja Mohan, "Why China Is Paranoid About the Quad", *Foreign Policy*, 17 May 2022, <https://foreignpolicy.com/2022/05/17/india-china-quad-summit-modi-xi-biden/>.

In this context, the Quad has indirectly affected China's policy and strategy developments and force employment. However, the Quad is not a quick remedy for today's China-created 'chronic diseases' in the Indo-Pacific, especially in the South China Sea and the East China Sea. However, without the Quad, China may establish its national objectives more easily.

## Key Subjects of the Quad: Japan's Perspective

### The JMSDF's Military Objectives in the Indo-Pacific Region

Japan is a nation with a 'Pacifist constitution'. So, under the Japan-US alliance, the key tasks of the Japan Self-Defense Forces (JSDF) are mainly homeland and related air space defence. An important task of the JMSDF is to protect Japan's sea lines of communications (SLOCs). This would primarily include protecting merchant shipping for national survival and supporting US forces, (both operational forces and strategic reinforcements) arriving from mainland US/Hawaii by reducing enemy submarine threats. Thus, the Japanese maritime forces can help ensure the safety of US forces which will be tasked to conduct strike operations on enemy soil, including major national infrastructure and military facilities and help bring any future war to a swift end.

*In any crisis in the region, the JMSDF will reduce enemy or adversary submarine threats to enable American naval carriers, strike forces and amphibious forces to operate more efficiently and safely.*

Such strategic mission sharing between the US and Japan continues even today. In any crisis in the region, the JMSDF will reduce enemy or adversary submarine threats to enable American naval carriers, strike forces and amphibious forces to operate more efficiently and safely. The JMSDF, or its main self-defence fleet, is designed and constructed to fulfil this mission. For example, it has more than 50 destroyers, 22 submarines, 80 patrol aircrafts, 80 patrol helicopters, 20 mine-warfare ships and five large and fast fleet logistic supply ships.

Another national military objective of the JSDF is to provide logistical support to all American forces deployed to and arriving in the region. This national task of Japan is called the 'enabler of US forces in the region'. These are the fundamental objectives of the JSDF and the

JMSDF. It is only due to the strategic and operational bonds between the JSDF and US forces that an uninterrupted presence of US forces in the Indo-Pacific region becomes possible. Such extensive engagement between the armed forces of the US and Japan engenders a significant deterrent against future adventurism by potential adversaries.

### Challenges faced by the JMSDF

The JMSDF has traditionally been an anti-submarine warfare (ASW)-focussed fleet, operating in the Northwest Pacific Ocean, within an area loosely bound by a line stretching from Tokyo to Iwo and down to the Philippines archipelago for more than five decades. Recently, two new missions have been assigned to the JSDF. The first is the “(Western) Islands Defense” and the other is “Out of Area Operations”. From the JMSDF’s point of view, its current force strength and structure, built around the missions of ASW operations in the Northwest Pacific, have become insufficient. In today’s real-world operations, the JMSDF has allocated forces to the new missions at the cost of degrading its ASW capability.

*In today’s real-world operations, the JMSDF has allocated forces to the new missions at the cost of degrading its ASW capability.*

The conversion of the JMSDF’s JS Izumo-class helicopter ASW carrier to an F-35B capable carrier is an example of this new reality and challenge. Unfortunately, the Japanese government has not taken the necessary policy actions to make up for the JMSDF’s degrading ASW capability. This could reduce the safety of incoming US Carrier Strike Groups and Amphibious Ready Groups. If any of these US capital ships were lost to attacks by enemy submarines, the Japan–US alliance would likely face serious jeopardy.

The JSDF and the JMSDF need to settle and resolve these issues thoroughly. And while the Japanese government’s defence policies regarding the two new missions are indispensable, so far, no remedial actions or programmes by the Japanese government have been reported.

### Capabilities and Doctrinal Shortfalls of the JMSDF

*Unfortunately, the traditional SLOCs defence has failed to attract the attention of all layers of Japanese society – from political leaders to ordinary people.*

One of Japan's serious defence policy problems is the negative impact of 'sea blindness'. Based on China's hard manoeuvres involving the Senkaku Islands in the East China sea since 2005, the Japanese public has developed stronger views concerning China's actions not only in the East China Sea, but also in the outer areas of the South China Sea and Western Pacific Ocean. This is a positive signal for Japan and the JSDF, but the focus of domestic defence debates is mainly on island defence and airspace defence because these are easier and more visible subjects in Japan. Unfortunately, the traditional SLOCs defence has failed to attract the attention of all layers of Japanese society – from political leaders to ordinary people. Such 'sea blindness' is primarily responsible for the decision to convert the Izumo class ASW helicopter carrier to an F-35B capable carrier for Japan's airspace defence. The decision may contribute to severe degradation of the JMSDF ASW forces in the coming months. The same is true for the JMSDF's mine warfare forces.

Regarding the capabilities of the JMSDF, it is currently building only a coastal multi-purpose frigate which lacks almost all high-end combat capabilities. What is worse is that there is no plan or programme to build large fleet-destroyers or Aegis-equipped destroyers at this point.

### Role of the Quad Partners

In terms of military and operational planning, the simple and easy things for the Quad navies to do would be to institutionalise mission sharing and mutual support. For example, the JMSDF can be responsible for Japan's western island defence, focussing on choke points control in the island chain. The JMSDF should also be responsible for the choke point control in the waters between Taiwan and the Philippines. Of course, the 'wide area ASW' continues to be a core mission of the JMSDF.

For Australia, the Royal Australian Navy should bear the responsibility of controlling the outside (south) of Indonesian/Timor waters.

Similarly, if the Indian Navy takes responsibility of controlling the waters from the west of Sumatra Island to the Andaman and Nicobar Islands, China's commercial and military shipping and flights could be blocked.

These are the potential capabilities, roles and missions among the Quad nations. For the Quad and ASEAN, this type of maritime or naval collaboration and overall posture will be the only means to deter China.

## Conclusion

It is a geographic fact that the 'First Island Chain' stretching from Japan to the Philippines, and further to Singapore/the Malay Peninsula has been China's 'Achilles Heel' for decades, if not centuries. China's 'Achilles Heel' prevents its shipping from making direct approaches to the outer oceans. This situation, somewhat, reminds one of Russia/Soviet Union's geography, where it did not have a non-frozen port. For the future, one positive change is the increased approach of the European nations and the NATO countries since 2021 to issues relating to the Indo-Pacific. The May 2022 Quad summit in Tokyo has only allowed for greater discussion, coordination and cooperation among the four Quad nations.

*For the Quad and ASEAN, this type of maritime or naval collaboration and overall posture will be the only means to deter China.*

# India's "Maritimeness" and Continentality

Sudarshan Shrikhande

## Summary

*In the maritime context, China and India, as users of the sea, may be engaged in competing for sea control through much of the Indo-Pacific should a wider conflict take place.*

*This paper enumerates India's military objectives in the Indo-Pacific and examines the conundrum India experiences with its continental and maritime strategies where China is a strategic concern. While this may be a 'stand-alone' concern, there is also the additional context of a growing China-Pakistan axis, creating complex two-front challenges that India cannot afford to rule out. In the maritime context, China and India, as users of the sea, may be engaged in competing for sea control through much of the Indo-Pacific should a wider conflict take place. Explaining China's multi-dimensional sea power that could be brought to bear in large parts of the northern Indian Ocean Region (IOR), this paper urges that Indian responses also need to be multi-dimensional, leveraging its island territories as well as the Quadrilateral Security Dialogue (Quad) and other nations that are increasingly experiencing Chinese bellicosity.*

## Introduction

The Indian Navy's official strategy document, published in 2015, states, "India's maritime security aim is to safeguard national maritime interests at all times."<sup>3</sup> It then derives five "maritime security objectives" enumerated here:

- i. To deter conflict and coercion against India;
- ii. To conduct maritime military operations in a manner that enables early termination of conflict on terms favourable to India;
- iii. To shape a favourable and positive maritime environment for enhancing net security in India's areas of maritime interest;

<sup>3</sup> "Indian Navy, Ensuring Secure Seas: Indian Maritime Security Strategy", Integrated Headquarters of the Ministry of Defence (Navy), Naval Strategic Publication 1.2, October 2015, p. 10, [https://www.indiannavy.nic.in/sites/default/files/Indian\\_Maritime\\_Security\\_Strategy\\_Document\\_25Jan16.pdf](https://www.indiannavy.nic.in/sites/default/files/Indian_Maritime_Security_Strategy_Document_25Jan16.pdf).

- iv. To protect Indian coastal and offshore assets against attacks and threats emanating from or at sea; and
- v. To develop requisite maritime force levels and maintain the capability for meeting India's maritime security requirement.<sup>4</sup>

These objectives encompass the range of security needs of a nation while remaining broad and flexible to enable a wide range of decisions and operations across geography, time, capability building and partnerships. While the document title refers to Maritime Security Strategy in the singular, the Indian Navy lays down six strategies, all of which matter contextually. These are strategies for deterrence; conflict; shaping a favourable and positive maritime environment; for coastal and offshore security; for maritime force; and capability development.

### **Continental or Maritime Conundrum: More Commonplace Than Not?**

For India, an initial observation is that strategically speaking, the continental and maritime strategic dimensions and environments co-exist in ways that island nations or countries with generally peaceful neighbours may not have to contend with. For India, the strategic reality and challenges have primarily been land-centric and continental, not so much maritime. Territorial disputes and different positions on border demarcations or significant loss of territory for India through conflicts (for example, in Kashmir in 1947-48 or against China in 1962) have dominated the firmament. They have regularly manifested in bilateral conflicts with Pakistan and acts of cross-border terrorism that can be traced back to it in several instances. Skirmishes and border incidents have occurred with China at periodic intervals, one of which at Galwan Valley in mid-2020 continues to manifest itself across the tense Line of Actual Control. Given China's 'core interests' in its several claims on what is Indian territory across the Himalayan border, the possibility of conflict cannot be ruled out.

*They have regularly manifested in bilateral conflicts with Pakistan and acts of cross-border terrorism that can be traced back to it in several instances.*

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<sup>4</sup> Ibid.

The additional strategic complication is the ‘two-front’ environment with which India will increasingly contend. This has been an underlying consideration in the 1962 war with China where Pakistan was likely to be the second belligerent, and in the Indo-Pakistani conflicts of 1965 and 1971 in which China supported Pakistan. Even when a front with China, as a belligerent, did not happen, the implications of such a probability on the policy and planning of India’s strategic postures and force allocations were always necessary.<sup>5</sup> In time, the possible consequences of the growing China-Pakistan axis – the oft-quoted “iron-brothers” – can neither be set aside nor easily fire-walled via Indian statecraft.

*It is possible to forget that India’s continental maritime predicament has existed earlier and possibly still exists for others.*

There is a feeling in India that the maritime dimension dominates the strategic calculus of the other three Quad members – the United States (US), Japan and Australia. It is possible to forget that India’s continental maritime predicament has existed earlier and possibly still exists for others. The American Civil War was the only occasion when the US had to contend with predominantly continental strategic problems with a major maritime strategic dimension. Before that, similar dual-dimension problems existed in the wars of Independence. On its continent, the US has not had to contend with such a problem since the 1860s.<sup>6</sup> Yet, even the American involvement in various conflicts, ranging from the Philippines insurgency and the World Wars to the invasion of Afghanistan and Iraq and involvement in the Korean peninsula and Vietnam, inevitably bring continental strategic and operational considerations to the fore. Additionally, this manifests itself in the manner that land-based weapons, combined with complex surveillance and targetting networks, can increasingly influence the battle at sea and into an adversary’s littoral and hinterland. In other words, as already evident in Alfred Thayer Mahan and Julian Corbett’s writings, land and territory are not divorced from the leverage, influence and, equally, limitations of sea power.<sup>7</sup>

<sup>5</sup> Sudarshan Shrikhande, “Influence and Leverage of Seapower: From Kargil to Future Readiness”, *Journal of Defence Studies* 13, No. 3 (July- September 2019), p. 123.

<sup>6</sup> E. B. Potter (ed.), *Seapower: A Naval History*, (Annapolis, United States Naval Institute Press, 1981), pp.33-53, 95-108, 122-154 and 176-186.

<sup>7</sup> Kevin D McCranie, Mahan, Corbett, and the Foundations of Naval Thought (Annapolis, United States Naval Institute Press, 2021).

## India and China: Competitive Sea Control and Sea Denial

India's growing overall economic, security and, therefore, maritime security interests now require the Navy, jointly with the Coast Guard, to work with the four dimensions of warfare – air, land, space and cyber – in varying contextual combinations. If anything, the strength of maritime services, particularly the Navy, needs to grow in the right direction to create future-ready leverage and influence that sea power can provide even in the continental conundrum. We also need to keep in mind that as users of the IOR and the South and East China Seas for trade and operations, both India and China will require some level of sea control in a conflict.<sup>8</sup>

In those parts of the IOR where one side does not need to use the sea for trade or military purposes, a conflict condition of sea denial is necessary and sufficient. This needs emphasis because political strategies of denial are often confused and conflated with sea denial in global and naval discourse. These are almost entirely different matters. There is another tendency in sections of the navies, and even in non-naval scholarship, to conflate instruments with these two conditions. Some examples are that "carriers do sea control, but submarines do sea denial" or that sea denial is the weapon of weaker navies, implying that these missions are somehow about prestige, power and size rather than means to attain strategic or operational objectives.<sup>9</sup> Sea control and sea denial could be offensive or defensive. In general, at the tactical level, actions are offensive and robustness in execution is very useful.

*This needs emphasis because political strategies of denial are often confused and conflated with sea denial in global and naval discourse.*

<sup>8</sup> James Goldrick and Sudarshan Shrikhande, "Sea Denial Isn't Enough: An Australian and Indian Perspective", *The Interpreter*, 10 March 2021, <https://www.lowyinstitute.org/the-interpreter/sea-denial-not-enough-australian-and-indian-perspective>.

<sup>9</sup> See Sudarshan Shrikhande, "Influence and Leverage of Seapower: From Kargil to Future Readiness", op. cit. pp. 127-129; and "Harnessing Indian Sea Power Post-Galwan: Considerations of Time, Space and Force", Observer Research Foundation, Issue Brief, No. 379, 10 July 2020, pp. 2-6, <https://www.orfonline.org/research/harnessing-indian-sea-power-post-galwan-considerations-of-time-space-and-force-69573/>.

## Important Naval Objectives and Missions<sup>10</sup>

*This was done to reduce the effectiveness of their ability to launch a retaliatory or even first strike by destroying them before they could do so.*

One of the increasingly important missions would be the Strategic Offensive Anti-Submarine Warfare (SOASW). In a specific sense, the SOASW has been seen among the great and major powers capable of shadowing adversarial ballistic missile submarines (SSBNs) on patrol such that they could be located, tracked and marked for as long as it was possible and necessary. This was done to reduce the effectiveness of their ability to launch a retaliatory or even first strike by destroying them before they could do so. This required suitable anti-submarine warfare assets (ASW), including one's submarines, to be used for "marking".

In India's case, the SOASW may not be required against the People's Liberation Army Navy's (PLAN) SSBNs since they are unlikely to be deployed in the IOR. This is because the PLAN's nuclear missiles would be "pointed" toward the US from the South China Sea 'bastion' and the Central Pacific if safer getaway routes to patrol areas in the Central Pacific become feasible, especially if mastery of the 'First Island Chain' becomes a reality. In that aspect, the Indian SOASW would be required to track Pakistani conventional submarines (SSKs) and possibly Chinese nuclear-powered submarines (SSNs) and SSKs equipped with nuclear-tipped cruise missiles.

Given the ambiguity of armament, the same wherewithal would also work for operational and tactical conventional (that is, non-strategic) ASW tasks. This is in view of the number of conventional and nuclear attack submarines that could operate in the IOR, many of which are of Chinese design. Underwater domain awareness, and coordinated and cooperative ASW, especially at the operational levels and the continuation of intense ASW training during the Malabar and other bilateral or trilateral exercises with partner navies, are areas where the Quad and its coalitions may do some good work.

<sup>10</sup> Sudarshan Shrikhande, "Making India's Sea Power Formidable and Future-Ready", Occasional Paper #152, Observer Research Foundation, 27 April 2018, pp. 13-20, <https://www.orfonline.org/research/making-indias-sea-power-formidable-and-future-ready/>.

Likewise, the Strategic Defensive ASW needs greater resourcing to protect future SSBNs on transit and patrol in an indirect and discreet manner. The SSBNs would be an important feature of India's nuclear deterrence framework, and ensuring their ability to "deploy operationally, survive tactically and launch strategically" will become a priority.<sup>11</sup>

## Counterforce and Countervalue Missions

By using the terminology of nuclear deterrence architecture, maritime objectives could be counterforce and countervalue. The Indian Navy's countervalue missions would be against another nation's economic and war-waging capacities. This would include interdiction of the sea lines of communications (SLOCs) of an adversary's trade and land attacks against requisite 'value' targets. Counterforce missions are designed to weaken the adversaries' war-making capacities directly. The benefits include impairing the enemies' ability to undertake further counterforce and countervalue operations. The military objectives of the Indian Navy would thus be to deter a conflict through strength; to gain the upper hand if deterrence fails; and to use counterforce and countervalue operations coherently while protecting Indian and friendly maritime trade.<sup>12</sup>

*The benefits include impairing the enemies' ability to undertake further counterforce and countervalue operations.*

## The Indian Navy and the Rise of the PLAN

Overall, China's intertwined lines of statecraft – diplomatic, informational/intelligence, military and economic – have been visible, especially in the last 12 years. Its main footprint can be said to be across the Indo-Pacific, with claw marks all over the world. In the last two years, some strands of Chinese statecraft have frayed. China did not quite foresee that its ambition, belligerence and penchant for furthering corruption in some countries would serve as the glue

<sup>11</sup> Rory Medcalf, Katherine Mansted, Stephan Frühling and James Goldrick (eds.), "The Future of the Undersea Deterrent: A Global Survey", Australian National University National Security College, February 2020, <https://nsc.crawford.anu.edu.au/publication/16145/future-undersea-deterrent-global-survey>.

<sup>12</sup> Ibid, pp. 15-17. See for a fuller discussion on counter value and counterforce missions and interplay.

*China's ambitions, in particular, may necessitate greater underwriting by the military element, which is a cause for concern.*

that brings more countries together in ways that seemed difficult just three years ago. China's ambitions, in particular, may necessitate greater underwriting by the military element, which is a cause for concern. However, China might continue to work to get itself back on track. Briefly, the PLAN remains China's primary instrument in its projection of sea power, but Beijing is increasingly incorporating all five dimensions of warfare in the Western Pacific and large arcs of the IOR. The People's Liberation Army (PLA), as a whole, has the ability to launch ordnance on targets from shore-based aircraft and missiles and other high-speed projectiles of growing variety, range, precision and lethality. It also has an expanding array of multi-dimensional intelligence, surveillance and reconnaissance (ISR), cyber offensive and defensive instruments.

Therefore, the challenge for India is that in the conventional maritime domain, the Indian Navy "no longer has the luxury of fighting only the Chinese Navy".<sup>13</sup> On its own, or as Pakistan's partner, China can hold sway to quite an extent without requiring full-strength surface navy or carrier deployments in the IOR. In a war of choice, Beijing might deploy its surface navy in some numbers, but it may send more submarines, including a few SSNs. Space, cyber and shore-based strike power may play significant roles in a way that the so-called Anti-Access Area Denial (A2AD) influence is likely in the Western Pacific. China's space-based ISR and target-cueing capacities can be assumed to be improving. Consequently, one has to give credence to the arcs drawn by serious observers of the ranges to which their ability to deliver ordnance on surface targets across swathes of the IOR-Pacific Ocean.<sup>14</sup> The PLA's sea power over the IOR is likely to be more multi-dimensional than in the recent past. Essentially, the response to this from either India or the West has to be multi-dimensional.

The Indian Navy may pose a serious challenge to China by restricting access through the Straits of Malacca. However, no one should

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<sup>13</sup> Sudarshan Shrikhande, "Many Headed Dragon in the Indo-Pacific", *India Today*, 21 June 2021, pp. 58-60, <https://www.indiatoday.in/magazine/defence/story/20210621-many-headed-dragon-in-the-indo-pacific-rear-admiral-sudarshan-shrikhande-rettd-1813377-2021-06-11>.

<sup>14</sup> Ibid. Also, see the map on page 57 in US Department of Defence Military and Security Developments Involving the People's Republic of China, Report to the Congress, 2020.

excessively interpret the so-called 'choking' in order to see immediate military and politico-economic results.<sup>15</sup>

Unlike what is occasionally implied in the media, the SLOC choking, and choke-point control strategies are demanding on operational factors of time, space and force; hence, there are few benefits to overinterpreting them. Moreover, China would be expected to devise mitigation strategies as well as its own counter-SLOC strategies for its adversaries. In balance, India would need to continue its counterforce and countervalue operations, hopefully bolstered by some partners, with India's own island chain in the Andaman and Nicobar Islands playing an important role. China's place, base and friend network do not need exaggeration, but they should not be downplayed either. As seen in the ongoing conflict between Russia and Ukraine, the Chinese are building friendships and may have other 'Belorussia', in addition to Pakistan.

*China's place, base and friend network do not need exaggeration, but they should not be downplayed either.*

The capability and doctrinal shortfalls that India must address include assessing sea power differently and jointly. Its force build-up has to adapt to future-readiness by becoming more survivable, less vulnerable and factually better at power projection. India needs to increase its ASW capabilities, embark on more joint expeditionary leverages and develop the Andaman and Nicobar Islands as a Western bulwark of operations, not only for domestic purposes but also in ways that align with the interests of the Association of Southeast Asian Nations (ASEAN) member states concerned about China's bellicosity. Similarly, there is a need to improve the security of the Lakshadweep and Minicoy groups in the Arabian Sea.

What role can India and its Quad partners play in developing strategic coherence and deriving operational strengths that contribute to

<sup>15</sup> See R K Dhowan, "A Maritime Perspective", in a paper on National Security Colloquium, Vivekananda International Foundation, August 2018, p. 10, <https://www.vifindia.org/sites/default/files/national-security-vol-1-issue-1-colloquium.pdf>. For a measure of overstating the speed and degree of effects in 'choking' China across the Straits of Malacca, see Raja Menon, "India dithered over projecting naval power. Now it's been pushed to the side-lines of the Indo-Pacific", *The Indian Express*, 25 September 2021, <https://indianexpress.com/article/opinion/columns/india-dithered-over-projecting-naval-power-now-its-been-pushed-to-the-sidelines-of-the-indo-pacific-7530473/>. Also, see Sudarshan Shrikhande, "The delusion of India trying to throttle China's maritime trade", *The Interpreter*, 25 August 2020, <https://www.lowyinstitute.org/the-interpreter/delusion-india-trying-throttle-chinas-maritime-trade>.

deterrence and mutual support without having to become ‘shooting partners’ in a conflict? There is benefit in marketing the Quad for larger ‘positive’ purposes such as humanitarian assistance and disaster relief, counterterrorism, respect for a rules-based order and a free and open Indo-Pacific strategy. However, this paper asserts that the biggest ‘positive’ that the Quad can offer is the development of deterrence and capabilities. Of course, the Quad is not an Asian North Atlantic Treaty Organization (NATO) and does not need to become one. Nonetheless, it has to be at least about China, even if it is not against China.<sup>16</sup>

*Beijing spares no opportunity to say that the Quad is against China.*

The Quad cooperation in the maritime domain has begun. This is good, but neither the Quad nor the Indo-Pacific concept is any more about the oceans than NATO was primarily about the North Atlantic. However, if the Quad is seen to be working on security in a more robust, multi-dimensional way, its deterrent and cooperative utility in conflict may increase, as may its appeal to some in the ASEAN region. Beijing spares no opportunity to say that the Quad is against China. So, at the official Quad levels, the predominant ‘goody-goody’ narrative could change as the Quad becomes potentially more active and attractive in providing public good across the Indo-Pacific.

The Quad should focus its efforts on the areas of shared Intelligence, Surveillance and Reconnaissance, Maritime (and its subset), Underwater Domain Awareness and ASW at the technological and operational levels, as well as logistics cooperation. We need to think differently from the US, which prefers to see interoperability at the tactical level of warfare over the strategic level. This leads to a large portion of interoperability being measured in terms of hardware and tactical networks rather than a measure of ‘strategic unity amidst tactical diversity’.

<sup>16</sup> Sudarshan Shrikhande, “For a Secure Indo-Pacific, Grow the Quad”, United States Naval Institute, August 2020, pp. 38-43, <https://www.usni.org/magazines/proceedings/2020/august/secure-indo-pacific-grow-quad>. Also, see “India in the Indo-Pacific”, King’s India Institute, King’s College London, YouTube video, 21 October 2021, <https://www.youtube.com/watch?v=L9y7hXVnLE>. The reference to the ‘positive’ aspect is to what Indian External Affairs Minister, S Jaishankar, said during the 4<sup>th</sup> Quad Foreign Ministers’ Meeting in Melbourne on 11 February 2022.

## Conclusion

New Delhi's efforts may also include canvassing and convincing more Southeast Asian partners of the attribute of 'Indian centrality' to ASEAN to complement the better-known term 'ASEAN centrality'. If India sees the analogies between China's territorialisation of the South China Sea and its direct treading on some ASEAN member states' toes, New Delhi could provide assurance to the Southeast Asian nations impacted by Beijing's belligerent statements, postures and actions. There is some continental and maritime connection between China's claims in the South and East China seas and across the Himalayas. The continental and maritime conundrums and consequent strategies are more closely connected for India and most nations than is recognised. In that sense, it may be accurate to state that almost no nation is an island.

**PART 2**

**FIFTEEN YEARS OF NAVAL  
COOPERATION AMONGST  
THE QUAD PARTNERS:  
ACCOMPLISHMENTS  
AND CHALLENGES**

# Naval Arms Sales and Transfers Between the Quad Countries<sup>1</sup>

Nishant Rajeev and Yogesh Joshi

## Summary

*The rise of the People's Liberation Army Navy (PLAN) into a capable blue water vector has put naval cooperation at the forefront of the Quadrilateral Security Dialogue's (Quad) collective efforts to balance China. While the Malabar naval exercise has been the most visible element of naval cooperation, the Quad has been exploring other avenues to expand cooperation. One possible avenue to explore is the increase in arms sales, transfers and technology cooperation. Arms sales and transfers currently remain lopsided within the Quad. Despite the existence of domestic ship-building capacity in all Quad countries, the United States (US) continues to be a primary supplier of key naval equipment to all the other members. This paper explores gaps in the efforts to increase naval arms sales and transfers between the Quad countries, the reasons for the gaps and a possible way forward.*

## Introduction

China's ascent as a great power had created anxiety in its neighbourhood and beyond. During the 2000s, the assumption of China's peaceful rise and its potential integration into the global liberal order prevailed. Thus, countries have engaged China economically, hoping that its integration into the global order will ensure its peaceful rise. However, in the decades following, China's rise fed its revisionist intentions all along its periphery, including the India-China land border and the South and East China seas. In response, Asia's prominent democracies – India, Japan, Australia – and the US have gradually come together through the mechanism of the Quad to form a balancing coalition against China's rise.

*During the 2000s, the assumption of China's peaceful rise and its potential integration into the global liberal order prevailed.*

<sup>1</sup> This paper has been prepared by Yogesh Joshi and Nishant Rajeev based on a presentation and remarks made by Dr Collin Koh at the ISAS Workshop on 'Quad Cooperation: Maritime Security in the Indo-Pacific' on 2 March 2022.

Since its resurrection in 2016, the Quad grouping has expanded its cooperation into several avenues. However, naval cooperation has been at the forefront of their collective efforts against Chinese revisionism. This is exemplified in the annual Malabar naval exercises. This paper will explore the role of arms sales and transfers as an avenue of cooperation between the four Quad countries, challenges and shortcomings, and ways forward in this regard.

## Rise of the PLAN

*The PLAN has also invested in blue water capabilities to project power well beyond its shores into the Indian Ocean.*

Over the last 20 years, the PLAN has transformed itself from a Cold War-era coastal defence force into a modern navy capable of challenging the US Navy's dominance in the East and South China Seas. The PLAN has also invested in blue water capabilities to project power well beyond its shores into the Indian Ocean. These actions, in conjunction with its territorial revisionism, have threatened the core security interests of the Quad countries.

Over the past two decades, the funding for the PLAN has increased exponentially, which has aided its transformation into a quantitatively and qualitatively superior force. In numbers, China today boasts the world's largest operating navy with an overall battle force of approximately 355 ships and submarines, including more than 145 major surface combatants.<sup>2</sup> Numbers notwithstanding, the rapid pace at which the PLAN is adding new ships to its fleet has alarmed the regional navies.<sup>3</sup> Through its Anti-Access Area Denial (A2AD) capabilities, the PLAN has threatened American assets and bases in the region, creating greater complexities for the US Navy's potential involvement in wartime operations in China's near seas. Further, the Chinese development of the 4,000-kilometre range DF-26 Intermediate Range Ballistic Missile (IRBM) allows the PLAN to target US facilities in Guam. The PLAN has also deployed the DF-26B,

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<sup>2</sup> "Annual Report to Congress: Military and Security Developments Involving the People's Republic of China", Office of the Secretary of Defense, 2021, <https://media.defense.gov/2021/Nov/03/2002885874/-1/-1/0/2021-CMPR-FINAL.PDF>.

<sup>3</sup> Unclassified ONI information paper prepared for Senate Armed Services Committee, subject "UPDATED China: Naval Construction Trends vis-à-vis U.S. Navy Shipbuilding Plans, 2020-2030", Congressional Research Service, February 2020, <https://sgp.fas.org/crs/row/RL33153.pdf>.

an anti-ship variant, to incapacitate American aircraft carriers early in the advent of a conflict.<sup>4</sup>

Additionally, the PLAN has deployed surface-to-air missiles (SAMs) like the HQ9 to its occupied islands in the South China Sea. Being essentially mobile systems, the rapid deployment of such missiles provides China with significant capability for crisis escalation.<sup>5</sup> On the other hand, China's maritime militia extends Beijing's maritime claims with impunity and employs grey zone tactics of harassing foreign fishing vessels and naval vessels. On top of the acquisition and deployment of A2AD capabilities, China has also been focusing on creating jointness between its various services and commands to enhance its military power. Recent military exercises have focussed on creating synergies between the PLAN, Rocket Force and Strategic Support Force.

In addition to its maturing A2AD capabilities, China is investing in developing a fully blue water naval force. The pursuit of a blue water navy is driven by China's growing interests in the far seas to sustain its Belt and Road Initiative (BRI) as well as to protect maritime energy routes critical to its economic growth. The highlight of China's efforts to develop a blue water navy has been its focus on building and operationalising aircraft carriers. The PLAN is currently on track to launch its third aircraft carrier; reports have indicated that it plans to operate five to six aircraft carriers by the 2030s. This is accompanied by the planned launch of several surface combatants and the development of precision strike capabilities that will form carrier battle groups (CBGs) aimed at projecting power far from China's shores. For instance, the Type-054A Jiangkai II-class frigates have so far proven their worth during deployments to the Middle East, and more induction of such platforms is in the pipeline.<sup>6</sup> The US Department of Defence has noted that "in the near-term, the

*The highlight of China's efforts to develop a blue water navy has been its focus on building and operationalising aircraft carriers.*

<sup>4</sup> "DF-26", Missile Threat Initiative, Center for Strategic and International Studies, last updated on 6 August 2021, <https://missilethreat.csis.org/missile/dong-feng-26-df-26/>.

<sup>5</sup> Collin Koh, "Beijing's missile deployments in the South China Sea", *Policy Forum*, 11 January 2017, <https://www.policyforum.net/beijings-missile-deployments-south-china-sea/>.

<sup>6</sup> Collin Koh, "Westward Ho: Expanding Global Role for China's Navy?", *RSIS Commentary*, 7 January 2014, [https://www.rsis.edu.sg/rsis-publication/ids/2130-westward-ho-expanding-global/#.YnzB\\_uhByUL](https://www.rsis.edu.sg/rsis-publication/ids/2130-westward-ho-expanding-global/#.YnzB_uhByUL).

PLAN will have the capability to conduct long-range precision strikes against land targets from its submarine and surface combatants using land-attack cruise missiles, notably enhancing [China's] global power projection capabilities."<sup>7</sup>

The PLAN has invested equally in strengthening its submarine arm. Recent versions of China's conventional submarines have been fitted with the Air-Independent Propulsion technology, thus rendering their detention difficult. Furthermore, China is likely to field advanced nuclear-powered submarines with increased acoustic performance in the coming years. The submarines are also being outfitted with anti-ship cruise missiles.<sup>8</sup> This will improve the range and lethality of its submarine fleet, allowing the PLAN to engage and interdict adversaries further away in the high seas from the safety of its maritime backyard.

*Arms sales and transfer is a critical avenue for a collective effort to strengthen their naval capability.*

These changes in the Indo-Pacific's naval balance of power have engendered severe anxiety in the Quad countries. Chinese naval vessels are increasingly being deployed in the Indian Ocean and have been spotted near India's strategically sensitive Andaman and Nicobar Islands. According to the Indian Navy Chief, six to eight Chinese naval vessels remain continuously deployed in the Indian Ocean.<sup>9</sup> Similarly, Chinese naval vessels have made forays into the waters of the South Pacific.<sup>10</sup> China is already engaged in a maritime dispute with Japan over the Senkaku Islands in the East China Sea. Hence, the Quad countries have now realised the need for a collective effort to bolster their naval strength and capabilities. Arms sales and transfer is a critical avenue for a collective effort to strengthen their naval capability.

<sup>7</sup> "Annual Report to Congress: Military and Security Developments Involving the People's Republic of China", op. cit., p. 48.

<sup>8</sup> John Schaus, Lauren Dickey and Andrew Metrick, "Asia's Looming Subsurface Challenge", *War on the Rocks*, 11 August 2016, <https://warontherocks.com/2016/08/asias-looming-subsurface-challenge/>.

<sup>9</sup> Anirban Bhaumik, "6-8 Chinese Navy ships always in Indian Ocean", *Deccan Herald*, 9 January 2019, <https://www.deccanherald.com/national/6-8-chinese-navy-ships-always-712273.html>.

<sup>10</sup> "Australia plane had 'right' to watch China navy vessel in its waters: PM Scott Morrison", *The Economic Times*, 22 February 2022, <https://economictimes.indiatimes.com/news/defence/australia-plane-had-right-to-watch-china-navy-vessel-in-its-waters-pm-scott-morrison/articleshow/89743561.cms>.

## Naval Arms Sales and Transfer between the Quad Members

Building a capable naval force is a long-term exercise requiring significant investment. Hence, developing a domestic industrial capacity to support and supply a country's naval security needs is a challenging task. In the domain of naval shipbuilding, all four Quad members have been able to develop some amount of domestic capability over the past decades.

The US probably has the most matured naval industrial base that supplies to the US Navy and its allies and partners. However, the other Quad members have been able to develop the requisite capacity to support naval shipbuilding. Japan has attempted to revive its military industrial complex in the last few decades. Australia and India have also invested in developing their naval industrial bases. However, much of this development is at varying stages of maturity. Unlike Japan, Australia and India had to develop much of their shipbuilding capacity in the post-World War II era. Much of this development in Japan, India and Australia has been driven by the desire to maintain some degree of sovereignty over their defence industrial base. Despite this, the three countries face severe shortcomings. As one expert on Japan's industrial base argues, "Its (Japan's) policymakers are aware that the desire for autonomy can spill into autarky and the risks of technological backwardness."<sup>11</sup> Hence, the Japanese government has imported relevant defence equipment where it deemed necessary. Australia has also followed a similar policy where it acquires ship designs from other countries and manufactures warships in Australia in partnership with foreign vendors. Finally, India sources much of its sub-systems from foreign vendors while keeping ship design and construction "in-house".<sup>12</sup> In all these cases, the US has emerged as a key supplier of defence equipment, especially when it comes to naval sub-systems.

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<sup>11</sup> Chris Hughes, "Japan's emerging arms transfer strategy: Diversifying to re-centre on the US-Japan alliance", *The Pacific Review* 31, no. 4 (2018): p. 428. Also see Christopher Hughes, "Chapter Four: Japan's Military-Industrial Complex", *The Adelphi Papers* 48, no. 403 (2008): p. 67-78.

<sup>12</sup> Abhijit Singh and Manoj Joshi, "From Buyer to Builder: The Indian Navy's Rocky Road to Self-Reliance", Observer Research Foundation, Occasional Paper No. 270, September 2020, [https://www.orfonline.org/wp-content/uploads/2020/09/ORF\\_OccasionalPaper\\_270\\_BuyerToBuilderNavy\\_NEW.pdf](https://www.orfonline.org/wp-content/uploads/2020/09/ORF_OccasionalPaper_270_BuyerToBuilderNavy_NEW.pdf).

With its advanced defence industrial base, the US has been supporting the naval programmes of the other Quad members. It has supplied India and Japan with propulsion systems and gas turbines for its aircraft carrier (in Japan's case — helicopter carriers), destroyers and frigates. It has also provided radars, sonars, naval SAMs, naval guns and air defence systems to Japan and Australia. Though developed by American companies, many of these sub-systems are produced locally in the recipient country. The US companies are also contracted to provide support services for naval systems deployed in the Quad countries. In 2021, Washington agreed to provide Tokyo with the Aegis-class destroyer.<sup>13</sup> India has diversified its import of the naval sub-systems, sourcing naval supplies from France, Germany, Israel and Italy. Russia also remains a major vendor for the Indian Navy as the latter sources critical naval platforms such as aircraft carriers, destroyers and nuclear submarines from Moscow.<sup>14</sup>

*These sales contribute to the maritime surveillance capabilities of the Quad navies in light of China's growing submarine threats, a key concern for the Quad.*

The US is also a key supplier of maritime intelligence, surveillance and reconnaissance (ISR) and anti-submarine warfare equipment to all the other Quad countries. Its biggest sales have been of the Boeing P-8 Poseidon anti-submarine warfare aircraft. The aircraft is operated by both the Indian and Australian navies. The Japanese Navy currently operates the older P-3 Orion version but is set to replace it with the indigenously developed Kawasaki P-1 maritime patrol aircraft. The US has also supplied Seahawk anti-submarine warfare helicopters to all three countries and leased two predator drones to the Indian Navy for maritime ISR. Both these systems come with anti-submarine torpedoes supplied by the US. In September 2021, the US signed the AUKUS agreement with Australia and the United Kingdom (UK) to supply nuclear propulsion for the Australian domestic submarine program. These sales contribute to the maritime surveillance capabilities of the Quad navies in light of China's growing submarine threats, a key concern for the Quad. The advantage of operating common platforms and systems allows for easier communication, command and control,

<sup>13</sup> "US approves sale of Aegis-class support services to Japan", *Naval Technology*, 5 August 2021, <https://www.naval-technology.com/news/us-approves-aegis-support-sale/>.

<sup>14</sup> Stockholm International Peace Research Institute Arms Transfer Database.

data transfer and more extensive interoperability between the Quad navies.

Despite the growing commonality of the US-sourced naval platforms among India, Japan and Australia, very little trade in naval equipment occurs between India, Japan and Australia. Australia was interested in a 4,000-tonne Japanese Soryu-class diesel-electric attack stealth submarine to replace its Collins class submarines. However, Japan lost the bid to France's Barracuda-class submarines.<sup>15</sup> Japan has similarly tried to sell its ShinMaywa US-2 amphibious aircraft to India. India has been interested in procuring the aircraft for search and rescue missions and improving logistics to far-flung islands. However, the deal has been stuck for nearly 10 years due to disagreements over the cost of procurement, technology transfers and local manufacturing requirements.<sup>16</sup>

*India has been interested in procuring the aircraft for search and rescue missions and improving logistics to far-flung islands.*

Thus, though growing, the defence trade and arms transfers within the Quad is highly lopsided, with the US being the sole supplier. India appears to be the odd man out in the Quad, wherein it continues to operate platforms sourced from both Western and Russian sources.

## Challenges and Way Forward

A possible reason for this lack of diversification in naval weapons supply within the Quad is the entrenched relationship between governments and defence suppliers. Defence ministries are reluctant to change vendors after they have developed a relationship with them. This adherence to tradition, combined with the bureaucratic inertia within governments, is a possible reason for the lacking naval arms trade between the Quad countries. For instance, India has been procuring its naval guns predominantly from Italy and SAMs from Israel, while ships are designed with Russian assistance. Similarly,

<sup>15</sup> Franz-Stefan Gady, "Why Japan Lost the Bid to Build Australia's New Subs", *The Diplomat*, 27 April 2016, <https://thediplomat.com/2016/04/why-japan-lost-the-bid-to-build-australias-new-subs/>.

<sup>16</sup> Greg Waldron, "JAPAN AEROSPACE: India US-2 deal sees no progress", *Flight Global*, 12 October 2016, <https://www.flightglobal.com/japan-aerospace-india-us-2-deal-sees-no-progress/121966.article>; and Huma Siddiqui, "India looks to revive \$1.65 bn ShinMaywa US-2i amphibious plane deal with Japan", *Financial Express*, 13 July 2017, <https://www.financialexpress.com/india-news/india-looks-to-revive-1-65-bn-shinmaywa-us-2i-amphibious-plane-deal-with-japan/761210/>.

Australia has been working with Spanish companies to supply the designs for its surface vessels.

Changing equipment and defence suppliers entails significant costs as it involves retraining personnel to familiarise them with new technologies as well as overhauling servicing and maintenance infrastructure to support steady operations in the field.

*The AUKUS agreement is possibly the largest and most recent efforts to develop defence technology between the Quad partners.*

One of the promising areas of cooperation on arms sales and transfers is joint research and development on naval platforms. The AUKUS agreement is possibly the largest and most recent efforts to develop defence technology between the Quad partners. While nuclear propulsion technology has been at the core of the agreement, the AUKUS also aims to foster joint research and development (R&D) of several systems, including artificial intelligence, quantum technologies and undersea technologies. Under the AUKUS agreement, the US, the UK and Australia will also collaborate on Undersea Robotics Autonomous Systems.<sup>17</sup> India is also interested in acquiring aircraft carrier technology from the US, and both countries have established a Joint Working Group on Technical Cooperation on Aircraft Carriers. In 2017, the US released the Electromagnetic Air Lift System technologies to India.<sup>18</sup>

In 2015, India and Japan signed an Agreement on Defence Equipment and Technology Cooperation. Following this agreement, India and Japan have established a Joint Working Group on Defence Equipment and Technology Cooperation and increased engagement between their defence business forums. Research on Unmanned Ground Vehicles is already progressing between the two countries.<sup>19</sup> Although modest progress has been made thus far, there is significant scope to expand R&D cooperation in the naval domain.

<sup>17</sup> "FACT SHEET: Implementation of the Australia – United Kingdom – United States Partnership (AUKUS)", Australian Government Department of Defence, <https://www.defence.gov.au/about/taskforces/nuclear-powered-submarine-task-force/fact-sheets>.

<sup>18</sup> "US to release EMALS technology to India for aircraft carriers", *The Economic Times*, 14 July 2018, <https://economictimes.indiatimes.com/news/defence/us-to-release-emals-technology-to-india-for-aircraft-carriers/articleshow/61129874.cms>.

<sup>19</sup> "India", Defense Equipment and Technology Cooperation with Other Countries, Ministry of Defence, Government of Japan, [https://www.mod.go.jp/en/equipment/tec\\_cooperation/index.html#country\\_06](https://www.mod.go.jp/en/equipment/tec_cooperation/index.html#country_06).

## Conclusion

China's naval expansion, especially its blue water and submarine capabilities, has forced the Quad countries to take note. However, due to deficiencies in their indigenous industrial base, the Quad members rely heavily on the US for critical components and sub-systems. The US is also the main supplier of anti-submarine warfare platforms to Japan, India and Australia. Such one-way traffic on supplies of defence technologies not only places an enormous burden on the US but also curtails the potential of meaningful cooperation between India, Japan and Australia.

Greater supply and research and development among India, Japan and Australia can help mitigate the situation. Focussing on joint research and development will not only facilitate an exchange of ideas and expertise but also help sustain long-term competitive edge vis-à-vis China. It will also aid in an even distribution of burden sharing between the Quad partners, which are currently highly reliant on the US naval industry.

# Emerging Interoperability of the Quad Partners in the Indo-Pacific Maritime Space: An Australian Perspective

David Brewster

## Summary

*The Quadrilateral Security Dialogue (Quad) partners – Australia, India, Japan and the United States (US) – have come a long way since 2007 in building interoperability in the Indo-Pacific maritime space. However, they still have a long way to go before the maritime forces of the four countries can achieve a high degree of technical interoperability.<sup>1</sup> While this is an important objective, other important objectives can be achieved with smaller investments.*

## Introduction

*However, depending on the partners involved, there can be considerable constraints due to political, financial or other reasons.*

This paper examines what interoperability means and why it is important. It will then consider where the Quad members were in terms of interoperability in 2007, where they are today and the challenges that remain. The paper concludes that a high level of technical interoperability between all four Quad partners is desirable to achieve greater operational effectiveness. However, depending on the partners involved, there can be considerable constraints due to political, financial or other reasons. In some cases, other important objectives of interoperability in addition to technical interoperability, such as legitimacy and burden-sharing, could be more easily achieved with a relatively lower level of investment by the partners. In particular, much can be gained through greater focus on the development of person-to-person relations among their defence forces to make cooperation in this space “business as usual”.

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<sup>1</sup> While this paper focusses on the interoperability of the Quad navies, it also includes other important actors in the maritime space such as air forces and coast guards.

## What Is Interoperability and Why Is it Important?

The US Department of Defense defines interoperability as “the ability to act together coherently, effectively and efficiently to achieve tactical, operational, and strategic objectives.”<sup>2</sup>

This definition focusses on the objectives and assumes the benefits of interoperability. This includes an assumption that military forces that act together coherently, effectively and efficiently are more likely to achieve a given set of tactical and strategic objectives.

Importantly, the benefits of interoperability can go beyond enhanced operational capabilities to include helping to shape the strategic environment (for example, through such things as demonstrating commitment, reassuring partners and enhancing political legitimacy at home or with third parties) as well as reducing resource demands (through burden sharing and reducing costs).<sup>3</sup> In some ways, the drive toward interoperability could also create operational constraints or additional costs for the individual partners. Thus, we need to understand the significance of interoperability, not just in terms of the positives of enhanced technical or operational capabilities. It also requires consideration of other benefits, risks, costs and the partners’ relevant objectives. In short, interoperability is best understood as a means to some other end, not as an end in and of itself.<sup>4</sup>

*In some ways, the drive toward interoperability could also create operational constraints or additional costs for the individual partners.*

The definition of interoperability by the North Atlantic Treaty Organization (NATO) is somewhat more functional, “Interoperability allows forces, units or systems to operate together. It requires them to share common doctrine and procedures, each other’s infrastructure and bases, and to be able to communicate with each other.”<sup>5</sup>

<sup>2</sup> US Department of Defense Dictionary of Military and Associated Terms, November 2021. <https://irp.fas.org/doddir/dod/dictionary.pdf>.

<sup>3</sup> Christopher G Pernin, Angela O’ Mahony, Gene Germanovich and Matthew Lane, Chasing Multinational Interoperability: Benefits, Objectives and Strategies (Santa Monica: Rand Corporation, 2020).

<sup>4</sup> Ibid. p. 9.

<sup>5</sup> North Atlantic Treaty Organization, “Backgrounder: Interoperability for Joint Operations”, July 2006, [https://www.nato.int/nato\\_static\\_fl2014/assets/pdf/pdf\\_publications/20120116\\_interoperability-en.pdf](https://www.nato.int/nato_static_fl2014/assets/pdf/pdf_publications/20120116_interoperability-en.pdf).

This points to some elements, such as doctrine and procedures, infrastructure and bases and communications, which need to be addressed by military forces operating together. Moves towards enhancing interoperability between different military forces could be understood as a process. A necessary step towards interoperability is the undertaking of regular and sophisticated joint exercises that allow partners to understand doctrine and procedures, communications and intricacies in the use of each other's infrastructure.

This paper considers the level and scope of interoperability between the Quad countries by focussing on key elements of interoperability such as the frequency and scope of naval exercises, communications and networking, logistics and maintenance and infrastructure access.

### **Where was the Quad In 2007?**

Evidently, the interoperability of the Quad partners has come a long way since August 2007, when some 27 vessels from India, the US, Japan, Australia and Singapore first exercised together in the Bay of Bengal as part of the Malabar naval exercise in 2007.

The four Quad partners involve six separate bilateral relationships, and the levels of interoperability differ very significantly among these six relationships. Going back to 2007, the biggest gaps in interoperability were between Australia and Japan, between the US, Japan and Australia on the one hand and India on the other.

*The Japanese and Australian militaries had each worked closely with the US for many decades, but rarely with each other.*

At that time, Australia and Japan were both members of the US alliance system, although this actually involved two separate alliance relationships: US-Japan and US-Australia. The Japanese and Australian militaries had each worked closely with the US for many decades, but rarely with each other. This reflected constitutional and political obstacles on the Japanese side and a perceived lack of imperatives on both sides. The 2007 Australia-Japan Joint Security Declaration was a first step in demonstrating alignment of strategic interests, but there was a great deal to be done at the operational level.

War, the Indian Navy had not substantially operated with any navies in the Western alliance system.<sup>6</sup> It maintained many traditions of the Royal Navy – including many aspects of its culture and internationalist perspectives – and followed NATO communications protocols. However, it operated a mix of British and Soviet-sourced platforms, weapons systems and other equipment.

In 2007, while the Indian Navy leadership was keen to build cooperation; decades of India's non-aligned strategic posture created major political roadblocks to close cooperation with the US and its allies. Indeed, the conduct of the Malabar naval exercise in August 2007 prompted claims in the Indian media that India was joining an Asian NATO. Indian Defence Minister A K Antony, under pressure from the Congress Party's communist coalition partners, then announced that India would not participate again in the Malabar naval exercise in a multilateral format. That slowed things down for many years.

*Indeed, the conduct of the Malabar naval exercise in August 2007 prompted claims in the Indian media that India was joining an Asian NATO.*

## Where is the Quad Today?

This paper will not provide a detailed account of the history of cooperation between the four Quad partners since 2007, although it will note some key developments, particularly as they relate to Australia.

In summary, the US, Japanese and Australian navies have each pursued enhanced interoperability with the Indian Navy with varying degrees of success. The US and India are probably the most advanced in technical interoperability, reflecting the importance that India ascribes to the US relationship and the relatively greater benefits that the US military can offer India in relative terms (including power and capabilities). The scale of interactions between the two countries, enhanced by India's growing adoption of US defence technology, is moving this relationship close to "business as usual" between the two militaries in some areas.

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<sup>6</sup> The India Navy ceased participating in substantive naval exercises with Commonwealth navies (including Australia) in the late 1950s and only began bilateral exercises with the US Navy in 1992.

Despite Indian hesitancy about its relationship with Canberra – due to political fallout over Australia’s public withdrawal from Quad 1.0 in January 2008 – over the last five years or so, the Australian and Indian navies have also made considerable progress in exercising together, particularly in some critical areas such as the Anti-Submarine Warfare (ASW).

*Australia and Japan are now also making some progress on enhancing interoperability.*

Australia and Japan are now also making some progress on enhancing interoperability. However, their relationship continues to be constrained by political sensitivities on the Japanese side about essentially entering into what is, for many practical purposes, an alliance relationship with Australia.

The following is a brief review of progress between the Quad partners in exercises, communications and networking, logistics and maintenance and access to defence infrastructure.

### Exercises

In the years following the Malabar naval exercise in 2007, the Indian Navy pursued an active bilateral exercise programme with its three Quad partners despite the pause on the multination format. The Malabar naval exercise eventually returned to a three-party format (including Japan) in 2015, and then a four-party format (including Australia) in 2020.

Bilateral exercises between India and its Quad partners have sharply accelerated over the last few years,<sup>7</sup> progressively becoming much larger and more sophisticated. The Australia-India AUSINDEX naval exercises (conducted since 2015) have become increasingly sophisticated, including involving multiple vessels and aircraft in ASW drills as well as logistical support such as refuelling at sea.

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<sup>7</sup> As noted previously, the Indian Navy began bilateral exercises with the US Navy in 1992. The Japanese and Indian coast guards began regular bilateral exercises in 2006 and Japanese and Indian navies in 2013. The Australian and Indian Navies began regular bilateral exercises in 2015.

The number and sophistication of exercises between Australia and Japan also increased over this period. The two countries regularly participated in multilateral exercises hosted by the US, but bilateral exercises were relatively thin. The Nichi Gou Trident naval exercises, a joint naval drill between the two countries that has been conducted since 2009, in addition to many naval exercises held in a multilateral format, such as Malabar, Talisman Sabre, Pacific Vanguard, Arc-21 and La Perouse. Japanese participation in Talisman Sabre exercise, Australia's largest multinational combined arms exercise held in Northern Australia, is of particular significance. The Japanese first participated in it in 2015 when Japanese marines were embedded in US units.<sup>8</sup> Similarly, while the Royal Australian Air Force (RAAF) and Japan Air Self-Defense Force (JASDF) have exercised alongside each other in multinational formats, they did not undertake bilateral air combat exercises before the Bushido Guardian exercise of 2019.

*The two countries regularly participated in multilateral exercises hosted by the US, but bilateral exercises were relatively thin.*

In short, this increasing tempo of naval and other exercises between India and the other Quad partners and between Australia and Japan has established an adequate foundation for enhanced interoperability in certain key areas.

### Communications and Networking

Interoperability in communications and networking, particularly between India and the other Quad partners, is a significant constraint on the ability of the four countries to undertake coalition operations.

This will likely be mitigated by India's access to the Combined Enterprise Regional Information Exchange (CENTRIX) technology after signing the Communications Compatibility and Security Agreement (COMCASA) with the US in 2018. Australia already uses CENTRIX to communicate securely with many countries; the system could be used as a template for a future model to be used by all the countries in the region as an information exchange grid.

<sup>8</sup> Eاون Graham, "Talisman Sabre 2015: Bigger and more amphibious", *The Interpreter*, 20 July 2015. <https://www.lowyinstitute.org/the-interpreter/talisman-sabre-2015-bigger-and-more-amphibious>.

## Logistics and Maintenance

The US and Australia and the US and Japan have longstanding logistical support arrangements under their alliance agreements, going back many decades. Australia and Japan have had an acquisition and cross-servicing agreement (ACSA) in place since 2017.<sup>9</sup>

*They are more like accounting arrangements that provide administrative mechanisms for reimbursement for services provided.*

India has also entered into bilateral logistics arrangements with all Quad partners over the last several years (India-US in 2016; India-Japan in 2020; and India-Australia in 2020). These agreements are vital in facilitating the provision of logistical support, but they do not guarantee the provision of such support (in times of peace or war), nor do they guarantee access to each other's defence facilities.<sup>10</sup> They are more like accounting arrangements that provide administrative mechanisms for reimbursement for services provided. Nevertheless, they provide an important foundation for mutual access to defence infrastructure as well as other forms of logistical support like refuelling at sea.

In the long-term, there is also potential for the Quad partners to share some maintenance needs for common platforms they operate (for example, including P-8 maritime patrol aircraft, C-17 Globemasters, C-130 Hercules, as well as Chinook and MHR-60). This could potentially generate significant cost savings but can be constrained by security and airworthiness certification requirements. In many cases, this seems a long way off.

## **Access to Defence Infrastructure**

Much greater access to military facilities (such as naval ports and airbases) could be a major factor in improving the combined capabilities of the Quad partners as a coalition force. For example,

<sup>9</sup> A logistical support agreement for peacekeeping and humanitarian operations was signed in 2009. "Defence Deal Looms with Japan", Australian Government Department of Defence, 22 September 2009. <https://www.minister.defence.gov.au/minister/marise-payne/media-releases/signing-australia-japan-acquisition-and-cross-servicing>.

<sup>10</sup> It was brought home in April 2022 when the Indian government refused landing rights to a Japanese Self Defence Force aircraft that was transporting humanitarian aid supplies to refugees in Ukraine. "India refuses to accept Japanese SDF planes on Ukraine aid mission", *The Japan Times*, 26 April 2022. <https://www.japantimes.co.jp/news/2022/04/26/national/india-sdf-planes/>.

access to partner infrastructure for staging purposes could be easy and inexpensive to enhance capabilities.

The Australia-US and US-Japan militaries have enjoyed more or less free access to each other's defence infrastructure for many years as part of their formal alliance arrangements. Although, for a long time, Australia could access US military bases in Japan, mutual access by the Australia-Japan defence forces to each other's facilities will be considerably enhanced by a 2022 Reciprocal Access Agreement (RAA). This establishes a defence cooperation framework that will allow the stationing of troops in each other's countries, along with the staging of joint training exercises and disaster support. The RAA had been under negotiation for several years, and the delay in signing it primarily stemmed from disagreements over legal issues relating to the status of forces but also from constitutional and political sensitivities in Japan. According to one analysis, it amounted to the most significant security pact that Japan has signed with another country since the 1960 Status of Forces Agreement with the US.<sup>11</sup>

*This establishes a defence cooperation framework that will allow the stationing of troops in each other's countries, along with the staging of joint training exercises and disaster support.*

The Australia-Japan RAA has particular strategic significance – from Australia's perspective – helping to facilitate and encourage greater Japanese defence engagement across the Indo-Pacific through the use of Australia's defence facilities. It also provides Australia with access to Japanese defence facilities, which would be particularly important in the event of a Taiwan contingency.<sup>12</sup>

Access to Indian facilities by its three Quad partners (the US, Australia and Japan) remains a significant issue for India. Although the Modi government has effectively dropped India's non-aligned policy for practical purposes, there are still major political roadblocks to its partners' regular use of Indian facilities. As noted, mutual logistics agreements have cleared away some practical obstacles regarding

<sup>11</sup> Tan Ming Hui, "Japan and Australia ties blossom", *The Interpreter*, 11 January 2020. <https://www.lowyinstitute.org/the-interpreter/japan-and-australia-ties-blossom>.

<sup>12</sup> Australia previously had access to several bases in Japan that were earmarked for the defence of Korea. Euan Graham and Yuka Koshino, "Australia and Japan inch closer towards landmark defence agreement", *The International Institute for Strategic Studies*, 17 December 2020. <https://www.iiss.org/blogs/analysis/2020/12/australia-japan-landmark-defence-agreement>.

replenishment, amongst others, but those agreements do not provide access.

One prominent issue for Australia in the Indian Ocean is the ability to stage through partner airfields to support maritime aerial surveillance. Australia operates several facilities in the eastern Indian Ocean that would be of considerable value in extending the range of India's operations in maritime surveillance.

In April 2022, an Indian P-8 maritime patrol aircraft landed at Australia's air base at Darwin and then undertook coordinated patrols with a RAAF P-8 aircraft.<sup>13</sup> An Australian P-8 aircraft made a reciprocal visit to Goa in June and undertook exercises with Indian counterparts. Once these reciprocal visits become normalised, the Indian aircraft could also potentially use the so-called "bare" RAAF air bases at Learmonth and Curtin in Western Australia. There is also potential for India to use the airfield on Australia's Cocos/Keeling Islands after work on the runway to allow P-8 operations is completed in 2023.

*Another potential site for cooperation would be the Australian use of the airfield at Port Blair in India's Andaman and Nicobar Islands.*

The RAAF already conducts P-8 patrols out of the Royal Malaysian Air Force base in Butterworth, which gives it good coverage of the Bay of Bengal area. However, staging out of the Indian Navy's and/or INS Hansa in Goa and/or INS Rajali in Tamil Nadu would help extend Australia's reach in the central and western Indian Ocean. It would also provide opportunities for multilateral combined operations with US Navy P-8s which are already conducting similar operations from these Indian bases. Another potential site for cooperation would be the Australian use of the airfield at Port Blair in India's Andaman and Nicobar Islands. While the facility could deliver additional operational flexibility for Australian P-8s, given Australia's existing access to Butterworth in Malaysia, using either INS Rajali or Hansa would be more advantageous.<sup>14</sup>

<sup>13</sup> "Indian Navy's P8I aircraft reaches Australia to participate in maritime operations", *The Economic Times*, 12 April 2022. <https://economictimes.indiatimes.com/news/defence/indian-navys-p8i-aircraft-reaches-australia-to-participate-in-maritime-operations/articleshow/90795343.cms>.

<sup>14</sup> Simon Bateman and David Brewster, "Australia and India: Working together and with others on maritime security", in John Bradford (ed.), *Maritime Cooperation and Security in the Indo-Pacific Region: Essays in Honour of Sam Bateman* (forthcoming).

All these facilities could be considered part of a network of facilities potentially available to Australia, India and other partners around the Indian Ocean. In addition to Australian and Indian facilities, these could include Diego Garcia, Djibouti, French Reunion and the new Indian-built facility on Mauritius' Agalega Island.<sup>15</sup>

## Conclusion

Achieving interoperability between India and the other Quad partners was always going to be a major challenge. Despite working together for a decade or so, achieving a high level of technical interoperability remains a long way off for some of the Quad partners.

Nevertheless, we should not necessarily assume that a very high-level technical interoperability between all four Quad partners (particularly between India and the other partners) is easily achievable at any time, given financial and political constraints, including significant differences in equipment, doctrine and politics. Further steps in achieving technical interoperability should be subject to cost-benefit analysis as to how much the partners are willing to invest in interoperability to attain particular objectives.<sup>16</sup> While technical interoperability can assist in achieving greater operational effectiveness, the Quad partners also have other important objectives from their cooperation, including political legitimacy and burden sharing. These objectives could potentially be more easily achieved with a relatively lower level or more focussed investment.

*Further steps in achieving technical interoperability should be subject to cost-benefit analysis as to how much the partners are willing to invest in interoperability to attain particular objectives.*

Developing people-to-people relationships at an operational level is one key factor in enhancing 'practical interoperability' between the Quad partners. Understanding how partners operate (at an operational, organisational and strategic level) – and having a network of friends and contacts – can be a significant way of improving cooperation between different organisations.

<sup>15</sup> David Brewster and Samuel Bashfield, "Building a new maritime surveillance network across the Indian Ocean", Australian Strategic Policy Institute, 4 August 2021, <https://www.aspistrategist.org.au/building-a-new-maritime-surveillance-network-across-the-indian-ocean/>.

<sup>16</sup> Christopher G Pernin, Angela O'Mahony, Gene Germanovich and Matthew Lane, Chasing Multinational Interoperability: Benefits, Objectives and Strategies, op.cit.

Relationships and networks between the US-Japanese and US-Australian naval and other forces have been developed over decades. People-to-people relations between Australian-Japanese forces and India are relatively thinner. This means that greater attention will need to be given to opportunities for education, training and secondments of early and mid-career officers so that they understand how their partners operate and are in a position to address problems that arise.

It is crucial for cooperation between the Quad partners to become what Simon Bateman calls “business as usual”<sup>17</sup> – when it is entirely unremarkable, for example, for ships or aircrafts to visit or work together or for personnel to be cross-posted. That would be a crucial step in addressing the many challenges of achieving interoperability.

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<sup>17</sup> Simon Bateman and David Brewster, “Australia and India: Working together and with others on maritime security”, in John Bradford (ed.), *Maritime Cooperation and Security in the Indo-Pacific Region: Essays in Honour of Sam Bateman* (forthcoming).

# Plotting the Quad's Maritime Domain Awareness Course

*Sarabjeet S Parmar*

## Summary

*The opacity of the maritime domain has reduced considerably with technology and increased information sharing amongst nations. This has resulted in a nuanced approach to Maritime Domain Awareness (MDA) at the national and regional levels. The rise in the importance of the Indo-Pacific and the Quadrilateral Security Dialogue (Quad) has posited the MDA as a cooperative mechanism tool. This paper examines areas of relevance to the Quad and the Indo-Pacific and structures in place between the Quad navies that aid the development of the MDA and suggests steps that can develop trust, enhance capacity, encourage more information sharing and create synergy.*

## Introduction

Although the genesis of the Quad is often traced to the 2004 Tsunami, the actual year of its birth could be pegged as 2007. After a flurry of diplomatic activity in early 2007, the first senior officer level meeting was held in May 2007 on the by-lines of the Association of Southeast Asian Nations (ASEAN) Regional Forum meeting in Manila.<sup>1</sup> The birth could be termed as tempestuous as the immediate major event linked to the Quad was the Malabar naval exercise in September 2007. The Quad navies, along with a ship each from Singapore and the Royal Navies, participated in this exercise, which evoked a strong reaction from China. Although this resulted in a hiatus till 2017, the four Quad nations progressed bilateral relations before the Quad was reformed. The amalgamation of various bilateral understandings and agreements, specifically between India and the rest of the three nations, aided the resurgence of the Quad in 2017. The reformation

*The reformation was made easier, given that three of the four members are allies, and India shares important strategic relations with all three.*

<sup>1</sup> For details, see Patrick Gerard Buchan and Benjamin Rimland, "Defining the Diamond: The Past, Present, and Future of the Quadrilateral Security Dialogue", Center for Strategic and International Studies, 16 March 2020, <https://www.csis.org/analysis/defining-diamond-past-present-and-future-quadrilateral-security-dialogue>.

was made easier, given that three of the four members are allies, and India shares important strategic relations with all three.

This paper will examine the following areas of relevance to the Quad and the Indo-Pacific: the MDA and intelligence sharing, the impact of technologies like the unmanned underwater vehicles (UUVs), Air-Independent Propulsion (AIP) on the MDA and the balance of power. The paper will also examine the structures in place between the Quad navies that aid intelligence sharing and the MDA, and the challenges they face.

## Maritime Domain Awareness

*The importance of the MDA, especially in today's complex maritime world of ever-increasing sea-borne commerce and non-traditional threats, cannot be sufficiently emphasised.*

The importance of the MDA, especially in today's complex maritime world of ever-increasing sea-borne commerce and non-traditional threats, cannot be sufficiently emphasised. The International Maritime Organisation has defined the MDA as "The effective understanding of anything associated with the maritime domain that could impact the security, safety, economy, or environment".<sup>2</sup> The United States (US) adopted the definition and amended it to read as the impact on "the security, safety, economy, or environment of the US".<sup>3</sup> Australia defines the MDA as "the effective understanding of anything associated with the maritime domain that could impact the security, safety, economy, or environment of a nation".<sup>4</sup> As per Japan's Basic Plan on Ocean Policy, the MDA is written as:

"The efficient understanding of situations associated with the oceans while bearing in mind how to handle the effective collection, consolidation, and sharing of diverse information about the ocean that contribute to maritime security, ocean environmental protection, marine industry promotion, and science and technology development."<sup>5</sup>

<sup>2</sup> International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual, Volume II, 2016 Edition, p. xxi.

<sup>3</sup> National Maritime Domain Awareness Plan for the National Plan for Maritime Security, December 2013, p. iv, <https://www.hsdl.org/?abstract&did=747691>.

<sup>4</sup> Australian Maritime Doctrine, RAN Doctrine 1 – 2010, Second Edition, Sea Power Centre Australia, p. 199

<sup>5</sup> "The Basic Plan on Ocean Policy", Cabinet Decision, 15 May 2018, Provisional Translation, foot note 14, p. 26, [https://www8.cao.go.jp/ocean/english/plan/pdf/plan03\\_e.pdf](https://www8.cao.go.jp/ocean/english/plan/pdf/plan03_e.pdf).

The Indian Navy's unclassified strategy document, *Ensuring Secure Seas: Indian Maritime Security Strategy*, states that "[The] MDA is an all-encompassing term that involves being cognisant of the position and intentions of all actors, whether own, hostile or neutral, in all dimensions of a dynamic maritime environment, across the areas of interest."<sup>6</sup>

The underlying commonality in all the definitions is the quantum of information across a vast area that needs to be shared and analysed for necessary action to be taken.

### Information Sharing – Not Intelligence Sharing

With a growing focus on national maritime security and regional stability and security of the maritime domain, many nations have recognised the importance of the MDA; hence, they have developed or are developing the required capacity and capabilities. More importantly, countries are cooperating with like-minded partners to share information by agreements like white shipping or positioning of International Liaison Officers (ILOs) in fusion centres run by other nations.

There are several fusion centres across the globe, out of which only a handful can be considered national in their mandate, capacity and activities. In the Indo-Pacific region, the US Coast Guard Maritime Intelligence Fusion Centre Pacific, India's Information Fusion Centre-Indian Ocean Region and Singapore's Information Fusion Centre fall in this bracket.<sup>7</sup> Therefore, while centre-to-centre cooperation can be considered an important part of Maritime Security Multilateral Cooperative Mechanisms, the differing capacity and capability of the fusion centres, and the presence of the ILOs from nations who do not share cordial relations will limit the type of information

*There are several fusion centres across the globe, out of which only a handful can be considered national in their mandate, capacity and activities.*

<sup>6</sup> Indian Navy, *Ensuring Secure Seas: Indian Maritime Security Strategy*, Integrated Headquarters of the Ministry of Defence (Navy), Naval Strategic Publication 1.2, October 2015, p. 165, [https://www.indiannavy.nic.in/sites/default/files/Indian\\_Maritime\\_Security\\_Strategy\\_Document\\_25Jan16.pdf](https://www.indiannavy.nic.in/sites/default/files/Indian_Maritime_Security_Strategy_Document_25Jan16.pdf).

<sup>7</sup> For more details, see Deon Canyon and Jim McMullin, "Maritime Domain Awareness and Maritime Fusion Centers", Daniel L Inouye Asia-Pacific Center for Security Studies (DKI APCSS) Security Nexus Perspectives, Volume 21 (2020), <https://apcss.org/wp-content/uploads/2020/10/N2526-Canyon-Maritime-awareness2.pdf>.

shared. However, as the focus is on common non-traditional threats and challenges, the information analysed and shared is generally acceptable. Currently, the information shared is on white shipping (commercial vessels). In time, progression could be made to look at black shipping (illegal vessels). There is also a requirement to develop the capacity and capabilities of the fusion centres, which are not considered national in their mandate, capacity and activities so that there is synergy in analysis and information sharing.

*The Quad has been well placed to share best practices and further enhance the MDA.*

Trust is a significant factor that finds a mention in all discussions regarding the MDA and information sharing. Hence, any shift to intelligence sharing may not be a plausible option. However, intelligence sharing between strategic partners will be limited to bilateral or maximum trilateral agreements. In contrast, allies have had multilateral arrangements for much longer, given the strong trust factor. The type of intelligence to be shared in both cases would always be classified. The Quad has been well placed to share best practices and further enhance the MDA. However, the ongoing Ukraine conflict and the divergent stance and views expressed by the Quad members may impact the trust factor and, hence, limit the sharing of information and intelligence.

## **The UUVs and Underwater MDA**

Due to the science and nature of the water body, especially the movement of sound under the sea surface, the underwater domain has always been a challenge. “The importance and challenges of the underwater battlespace continue to grow, as do investments in subsurface capabilities”.<sup>8</sup> These subsurface capabilities from non-nuclear submarines with AIP have grown to include the UUVs. A submarine’s primary weapon is stealth, and submarine operations thrive on the degree of difficulty in detecting a submarine. Non-nuclear submarines are quieter than nuclear submarines, and the fitment of AIP has drastically reduced the requirement to come to the surface or ‘snort’, for access to atmospheric oxygen. This capability

<sup>8</sup> The Military Balance 2022, The International Institute of Strategic Studies, (Routledge, 15 February 2022), p. 7.

makes detecting submarines more difficult, posing a void in a nation's operational underwater the MDA.

The UUVs further complicate the MDA picture as they are smaller and thus more difficult to detect. Notably, the UUVs are less expensive than manned submarines, and because lives are not at stake, they are expendable. A combination of manned submarines and the UUVs operating in larger numbers could increase the underwater traffic density as there would be a tendency to operate in areas of interest. For manned submarines, these would be areas of adequate depth and off choke points along the sea lines of communication and areas where International Shipping Lanes (ISLs) merge. In the case of the UUVs, the depth restrictions would be reduced based on the vessel size, allowing the UUVs to be deployed closer to the coast near identified Vital Areas and Vital Points. This would make detection even more difficult due to surface traffic density resulting in more ambient noise. One major legal issue that arises from the UUV operations is the identification of the nationality of a UUV. In the case of submarines, identification would be easier than the UUVs. As a result, while submarines are categorised as Grey Shipping (military vessels), unidentified UUVs could be considered Black Shipping and placed under the ambit of information sharing.

*This would make detection even more difficult due to surface traffic density resulting in more ambient noise.*

Nations are evolving doctrinal concepts and strategies for UUV exploitation. There are three areas where China considers the role of the UUVs and unmanned surface vessels (USVs).<sup>9</sup> The first is for Near Seas Protection to counter the adversary's maritime superiority. The second is for power projection, where UUVs will support out-of-area missions while maintaining situational awareness by adding to the intelligence, surveillance and reconnaissance (ISR) capability by serving as remote sensors and safeguarding offshore installations and assets within the Western Pacific theatre of operations. The third is in building capacity for future warfare, where unmanned systems are expected to play a vital role in China's transition from the 'informationised' to the 'intelligentised' concept of warfare.

<sup>9</sup> Kamlesh Kumar Agnihotri, *Leveraging High-Technology Developments in the Chinese Military and Maritime Domains* (New Delhi, Knowledge World, 2022), p. 99.

## Implications

The UUVs are adding to the maritime capacity and capability of nations and their maritime agencies. Table 1 shows the number of submarines held by the Indo-Pacific nations, except the US.

**Table 1: Indo-Pacific Inventory of Submarines**

SER	Nation	Numbers
<b>Ballistic Missile Submarines (SSBNs)/ Nuclear-powered General-purpose Attack Submarine (SSNs)</b>		
(a)	China	Six SSBNs, Six SSNs
(b)	India	One SSBN
<b>Non-Nuclear Submarines</b>		
(a)	Australia	Six
(b)	Bangladesh	Two
(c)	China	47(One SSB)
(d)	India	16
(e)	Indonesia	Four
(f)	Japan	22
(g)	DPRK	71
(h)	Republic of Korea	19 (One SSB)
(i)	Malaysia	Two
(j)	Myanmar	One
(k)	Pakistan	Eight
(l)	Singapore	Four
(m)	Republic of China	Four
(n)	Vietnam	Eight
(o)	South Africa	Three (One in long refit)

Source: Compiled by the author from *The Military Balance 2022*, Chapters 6 and 9.

The comparatively lower costs of the UUVs will add considerable numbers to the inventory. While underwater swarming tactics need to be considered and factored in, there is a need to discuss underwater ‘Manned-Unmanned Teaming’ (MUM-T). There are a host of legal issues that will require debate, as has been the case with unmanned aerial vessels and associated MUM-T.

While many issues will possibly remain in the 'classified operational' domain, there are issues that will impact the normative maritime environment. For example, higher unmanned traffic density will increase the possibility of collisions at sea, which will have their associated ramifications. Fouling or damage to submarine cables in the maritime zones of other nations is another area that will have a global impact.

## Conclusion

The MDA should be approached as a 'Maritime Security Multilateral Cooperative Mechanism'. The ambit and area are too large for the Quad; hence, more like-minded nations need to work together. As the present format of exchange is comfortable with information sharing and not intelligence sharing, the focus of cooperation should remain on addressing non-traditional threats and challenges in order to shape favourable and positive maritime regional environments. The Quad can work together to develop trust, enhance capacity, encourage more information sharing, and create synergy through several initiatives.<sup>10</sup>

*The Quad can work together to develop trust, enhance capacity, encourage more information sharing, and create synergy through several initiatives.*

Regular and sustained engagements at various bilateral, trilateral and multilateral levels, the conduct of real-time and virtual exercises and building capacity of nations through joint and collaborative efforts in training, co-development, and information processing will help the cause of the MDA. The Quad countries should also encourage effective and robust sharing of 'actionable information' under existing information-sharing agreements and positioning of ILOs at international fusion centres and develop and share technical solutions to promote wider information sharing across sectors, agencies, and regions. Engendering cyber resilience in information sharing mechanisms and extending engagements to various maritime stakeholders, particularly the shipping industry, coastal communities and academia, could aid in strengthening the cooperation. Finally, the Quad navies should ensure best practices to avoid or minimise duplication while ensuring complementarity in order to optimise collective efforts.

<sup>10</sup> These points were culled from the deliberations from the panel which discussed the MDA during the Indo-Pacific Regional Dialogue (IPRD) 2021 organised by the National Maritime Foundation from 27 to 29 October 2021.

# **PART 3**

## **ROLE OF THE QUAD IN MARITIME SECURITY, RULE OF LAW AND FREEDOM OF NAVIGATION OPERATIONS**

# Role of the Quad in Maritime Security, Rule of Law and Freedom of Navigation Operations: Perspectives from Australia

Donald R Rothwell

## Summary

*Australia actively supports the 1982 United Nations (UN) Convention on the Law of the Sea (UNCLOS) and relies upon its provisions to assert and recognise the freedom of navigation. Australia's maritime and national security are bound up in the freedom of navigation, especially innocent and transit passage. Constraints on the freedom of navigation are resisted by Australia, especially in the South China Sea. The Royal Australian Navy exercises the freedom of navigation, but it is not reflected in a formal operations policy.*

## Introduction

The history of the law of the sea has been marked by tension between the freedoms of navigation and the growing recognition of coastal states' rights and entitlements to control an ever-expanding area of seas adjacent to their coasts. These tensions have been accommodated in both customary international law of the sea and multilateral treaties adopted during the UN era. The most significant of these developments occurred with the UNCLOS, which is widely regarded as the 'Constitution of the Oceans'.<sup>1</sup> As coastal state entitlements in adjacent maritime zones have increased from a very narrow territorial sea of only three nautical miles (nm) to a 12 nm territorial sea, and 200 nm exclusive economic zone (EEZ), balancing those rights with the freedom of navigation became essential. The freedom of navigation is critical to global maritime security and applies equally to merchant shipping and naval shipping. It is generally well respected by all countries. These interests apply throughout the Indo-Pacific and are relevant for regional and extra-regional actors.

*The freedom of navigation is critical to global maritime security and applies equally to merchant shipping and naval shipping.*

<sup>1</sup> Donald R. Rothwell and Tim Stephens, *The International Law of the Sea*, Second Edition (Bloomsbury Publishing, 2016), p. 1.

Setting aside the special regime of archipelagic sea lanes passage,<sup>2</sup> which is only applicable within archipelagic waters and is particularly relevant in an Indo-Pacific context for navigation within Indonesian and Filipino waters, the most significant navigation regimes are those of innocent passage within the territorial sea and transit passage within an international strait.

### Australian Interests

Australia is an original party to the UNCLOS and firmly supports the freedom of navigation by both Australian flagged and foreign-flagged vessels. This is unsurprising, given Australia's historical background as a maritime nation that traditionally relied on a strong global export trade of commodities, which has been dominated by trade with China in recent years. The 'rules-based' international order – founded on UNCLOS and post-World War II UN framework – has been supported by successive Australian governments. Within the Indo-Pacific region, Australia refrains from taking positions on territorial and associated maritime disputes in the South China Sea. Canberra has repeatedly called for the peaceful settlement of disputes in the region, and in that context, it accepts the legitimacy of the 2016 South China Sea Arbitration award.<sup>3</sup>

*Canberra works with partners on many maritime-related issues and cooperates in many aspects, from military to environmental measures.*

Notably, Australia has a large and diverse maritime domain extending from the Pacific Ocean, the Southern Ocean to the Indian Ocean. It shares maritime boundaries with six states: Papua New Guinea, Solomon Islands, France (New Caledonia), New Zealand, France (Kerguelen), Indonesia and Timor-Leste.<sup>4</sup> All of these factors result in Australia placing high significance on its maritime security. Canberra works with partners on many maritime-related issues and cooperates in many aspects, from military to environmental measures. In this respect, it must be recalled that Australia and Japan had significant disagreements over Japanese whaling in the Southern Ocean, which

<sup>2</sup> Ibid, pp. 268-274.

<sup>3</sup> Marise Payne, "Marking the 5th Anniversary of the South China Sea Arbitral Award", Australian Minister for Foreign Affairs, 12 July 2021, <https://www.foreignminister.gov.au/minister/marise-payne/media-release/marking-5th-anniversary-south-china-sea-arbitral-award>.

<sup>4</sup> Stuart Kaye, *Australia's maritime boundaries*, Second Edition (University of Wollongong, Wollongong, 2001).

resulted in the International Court of Justice ruling in support of an Australian request to halt Japan's whaling programme in 2014.<sup>5</sup> Nevertheless, in 2022, Australia and Japan are Quad partners and have concluded a 'Reciprocal Access Agreement' to enhance mutual defence cooperation and engagement.<sup>6</sup>

## Innocent Passage

The innocent passage is the most high profile of all the UNCLOS navigational regimes because it recognises the freedom of navigation for the ships of all states within the territorial sea as stated in Article 17.<sup>7</sup> In Article 3, given the narrow breadth of the territorial sea at only 12nm, there is considerable sensitivity for some states in allowing such a broad navigational right so close to their coast. Importantly, the right is reciprocal: when one state recognises the entitlement within its territorial sea then its own flagged vessels can enjoy the right elsewhere.

*Importantly, the right is reciprocal: when one state recognises the entitlement within its territorial sea then its own flagged vessels can enjoy the right elsewhere.*

The innocent passage comprises two dimensions. The first is the right of movement which is the physical passage of a ship. The passage can comprise two forms as outlined in Article 18: the movement of a ship through the territorial sea without entering the internal waters of the coastal state, or the movement of a ship from the territorial sea to and from internal waters to facilitate a port visit. This passage dimension, therefore, envisages a ship constantly engaged in some form of navigation as it moves through the territorial sea.

The second dimension is the mode of conduct, which is the most critical. According to Article 19, the UNCLOS effectively defaults that a ship will be engaged in innocent passage, providing that its passage is not "prejudicial to the peace, good order or security of the coastal state". There is considerable scope for how those words

<sup>5</sup> Whaling in the Antarctic (Australia v Japan: New Zealand intervening), International Court of Justice, 31 March 2014, <https://www.icj-cij.org/en/case/148>.

<sup>6</sup> Agreement between Australia and Japan concerning the Facilitation of Reciprocal Access and Cooperation between the Australian Defence Force and the Self-Defense Forces of Japan, Ministry of Foreign Affairs of Japan, January 2022, <https://www.mofa.go.jp/files/100283786.pdf>.

<sup>7</sup> Donald R. Rothwell and Tim Stephens, *The International Law of the Sea*, op.cit. pp. 228-238.

can be interpreted by the coastal state. Too liberal an interpretation could result in significant limitations on innocent passage and the freedom of navigation. At the same time, to narrow an interpretation could result in security threats being posed to the coastal state. The UNCLOS' Article 19 (2) lists 12 activities that are considered to be prejudicial to the interests of the coastal state if a ship engages in any of those activities. This extends to the threat or use of force, any exercise or practice of weapons, acts of propaganda, acts of wilful and serious pollution, and fishing activities. This list has proven to be very helpful in bringing clarity to the innocent passage regime and providing certainty for both coastal states – which will be legitimately concerned about their security and other interests as a result of the presence of foreign ships in their territorial sea – and flag states which will be concerned that their ships can safely and securely navigate through a variety of waters providing they comply with the UNCLOS.

*The coastal state also has important rights to protect its interests.*

The UNCLOS right of innocent passage is a finely tuned balance between the rights and interests of coastal and flag states. The coastal state can enact certain laws and regulations that will apply to innocent passage, such as the safety of navigation, which foreign ships are to comply with as stated in Article 21. The coastal state also has important rights to protect its interests. Temporary closures of the territorial sea are permitted for the purposes of weapons exercises or other essential security measures (Article 25[3]). Most importantly, the coastal state can take the “necessary steps” within its territorial sea to prevent passage that is not innocent. What precise measures can be taken is unclear from the UNCLOS. State practice in this area suggests it can extend from a request that a foreign vessel leave the territorial sea, closure of the territorial sea to delinquent vessels, and even forcing a foreign vessel to leave the territorial sea through physical interdiction. Against these measures, the coastal state importantly must not ‘hamper’ the innocent passage of foreign ships; this includes taking measures that have the practical effect of denying or hampering the right of innocent passage (Article 24). Finally, while the UNCLOS is silent on whether warships enjoy the right of innocent passage, two provisions make it clear that they do. First, Article

17 underscores that innocent passage applies to ships of all states without distinction between certain types of ships. Second, Article 20 states that submarines are required to navigate on the surface within the territorial sea.

Australia strongly supports the innocent passage regime of the UNCLOS; there are few examples of it being contentious within Australian territorial sea. Issues have arisen where the Australian Navy seeks to exercise innocent passage through contested waters, or where an authorisation/permission regime has been put in place by the coastal state. In that respect, Australia does not conduct formal 'freedom of navigation operations' in the same way that the United States (US) does.<sup>8</sup> Nevertheless, the Australian Navy does regularly pass through parts of the South China Sea and has been challenged by China when doing so in the recent years.<sup>9</sup> Given Australia's stance that it does not recognise territorial island claims within the South China Sea, does not recognise territorial sea claims asserted from islands in the South China Sea, and does not recognise the legitimacy of coastal states' assertions that require prior notification or permission for warships to pass through the territorial sea, Canberra has ignored the requests made of its Navy when passing through the South China Sea.

## Transit Passage

The right of transit passage through the territorial sea of an international strait is more liberal than innocent passage and provides greater recognition of the freedom of navigation.<sup>10</sup> First, the regime extends to straits that are used for international navigation according to Article 37. A strait can be formed between two islands (Singapore Strait), between an island and a continent (Torres Strait), or between two continental mainlands (Bab el-Mandeb). But the strait must be used for international navigation, and this suggests the actual usage as opposed to the potential usage of the strait. Not every geographic

*The right of transit passage through the territorial sea of an international strait is more liberal than innocent passage and provides greater recognition of the freedom of navigation.*

<sup>8</sup> Malcom Cook, *Australia's South China Sea Challenges* (Lowy Institute, Sydney, 2021), p. 10.

<sup>9</sup> Andrew Greene, "South China Sea tensions rise as Australian frigate exercises with US warships", *ABC News*, 22 April 2020, <https://www.abc.net.au/news/2020-04-22/tensions-rise-in-south-china-sea-after-us-australia-exercises/12171806>.

<sup>10</sup> Donald R Rothwell and Tim Stephens, *The International Law of the Sea*, op. cit., pp. 255-267.

strait is therefore an international strait for the purposes of UNCLOS and international law.

Within recognised international straits, foreign-flagged vessels enjoy a right of continuous and expeditious passage through the territorial sea from one area of the EEZ or high seas to another area of the EEZ or high seas (Article 37). A ship in transit passage is to:

- i. proceed without delay, and refrain from any act that constitutes a threat of or use of force against the coastal State;
- ii. refrain from any activities other than those that are incidental to the normal modes of navigation; and,
- iii. comply with generally accepted international laws and regulations with respect to the safety of navigation and marine pollution controls (Article 39)

A critical aspect of the transit passage regime is that the coastal state is not to hamper transit passage and cannot suspend transit passage (Article 44). These UNCLOS provisions clearly favour the freedom of navigation for foreign ships through an international strait.

*Some Indo-Pacific countries such as Singapore and the US were very resistant to any such changes on the grounds that transit passage was being hampered.*

Australia has two international straits within its maritime domain: Bass Strait and Torres Strait. Following the negotiation of the UNCLOS, Australia was aware of the need to recognise the right of transit passage through these straits. In 2006, Australia, along with Papua New Guinea, adopted a compulsory pilotage regime in Torres Strait. Some Indo-Pacific countries such as Singapore and the US were very resistant to any such changes on the grounds that transit passage was being hampered.<sup>11</sup> Australia persisted with its compulsory pilotage regime, and it has proven successful in reducing the risk of environmental damage to the strait arising from the maritime disaster. Exemptions were given for certain vessels, including sovereign immune vessels such as warships, and this ultimately addressed some of the concerns expressed by the US.

<sup>11</sup> Sam Bateman and Michael White, "Compulsory Pilotage in the Torres Strait: Overcoming Unacceptable Risks to a Sensitive Marine Environment", *Ocean Development & International Law* (2009), pp. 184-203.

## Conclusion

One of the challenges associated with both the innocent passage and transit passage regime is the increasing securitisation of the territorial sea that arises from the coastal states adopting an expanding array of measures to ensure the security of that zone. This is partly reflected in how some coastal states have sought to adopt measures requiring prior authorisation of foreign warships within their territorial sea (China), to the Torres Strait compulsory pilotage regime. This trend will no doubt continue, and tensions will inevitably continue to arise over contested interpretations of the UNCLOS that constrain the freedom of navigation.

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Relatedly, the efforts of some coastal states to seek to extend navigational controls over the EEZ will also be strongly contested. The EEZ as the area beyond the 12 nm territorial sea is an area of the ocean where the historical freedoms of navigation prevail subject to limited controls such as piracy. Foreign military operations within the EEZ will remain contentious in the Indo-Pacific. However, major military powers such as China and the US recognise that within certain parameters such activity is permissible and consistent with the UNCLOS. In 2022, Australia had encounters with the People's Liberation Army Navy as two Chinese warships passed through Australia's EEZ to the north of Australia. Routine surveillance of the warships provoked a laser illumination of an Australian Maritime Patrol P-8A Poseidon which resulted in a number of diplomatic responses between Canberra and Beijing. While Australia did not contest the right of the Chinese warships to pass through the Australian EEZ, it did challenge the Chinese response to the surveillance flight.<sup>12</sup>

A remaining issue is the universal nature of the UNCLOS. As with any treaty, there will be different views on how it should be interpreted. The UNCLOS is not exceptional. The US, however, has remained outside of the UNCLOS framework since 1982 and Washington

<sup>12</sup> "Chinese ship lasing of P-8A Poseidon on 17 February 2022", Australian Government of Defence, 22 February 2022, <https://news.defence.gov.au/media/on-the-record/chinese-ship-lasing-p-8a-poseidon-17-february-2022>.

has not signed the convention. Rather, the US' position is that the UNCLOS is primarily reflective of customary international law. Whether a convention of 320 articles meets the high threshold for recognition as customary international law is debatable. For example, the International Court of Justice has only had a few occasions to consider a small number of UNCLOS provisions from that perspective. Importantly, the UNCLOS innocent passage and transit passage provisions are broadly considered to reflect contemporary customary international law. The US actively asserts this view as reflected in the US freedom of navigation operations as conducted throughout the Indo-Pacific. The UNCLOS freedom of navigation is, therefore, well established in international law and state practice and is a cornerstone for international maritime trade and commerce within the region.

# India's Approach to the Freedom of Navigation

Yogesh Joshi

## Summary

*Among the members of the Quadrilateral Security Dialogue (Quad), India remains an outlier as far as the freedom of navigation operations in the Exclusive Economic Zones (EEZs) are concerned. All the Quad countries, except India, agree to the full freedom of navigation for foreign naval vessels in the foreign EEZs. India, on the other hand, has a more restrictive understanding of freedom of navigation under the Law of the Seas. This paper argues that India's legal position notwithstanding, its political practice is aligned with the Quad countries.*

*India, on the other hand, has a more restrictive understanding of freedom of navigation under the Law of the Seas.*

## Introduction

In April 2021, the USS John Paul Jones conducted a Freedom of Navigation Operation (FONOPs) in India's EEZ, a section of India's highly vocal strategic community erupted with criticism and indignance.<sup>1</sup> Yet, India's Ministry of External Affairs (MEA) merely conveyed concerns "regarding this passage through our EEZ to the Government of [the (US)] through diplomatic channels."<sup>2</sup> The Indian government neither shared the humiliation expressed by the analytical community nor appeared as concerned over the purported violation of India's territorial integrity, its sovereignty, its domestic laws, or for that matter, its material interests and status concerns in the Indian Ocean.

The critics within the Indian strategic community cannot account for New Delhi's policies for several reasons. First, they underestimate the strength of the realpolitik tradition in India's foreign and security policies in the Indian Ocean. Second, they misunderstood the relationship between international law and politics. The Maritime

<sup>1</sup> For schools of thought in Indian Foreign Policy and strategic community, see Kanti Bajpai, "Indian Strategic Culture", in *Asia in 2020: Future Strategic Balances and Alliances*, ed. Michael R. Chambers (Carlisle, PA: Strategic Studies Institute, US Army War College, 2002), pp. 245–303. Also see Deepa Ollapally and Rajesh Rajagopalan, "The Pragmatic Challenge to Indian Foreign Policy", *The Washington Quarterly*, Vol. 34, No. 2 (2011), pp. 145–162.

<sup>2</sup> "Passage of USS John Paul Jones through India's EEZ", Ministry of External Affairs, 9 April 2021, [https://www.mea.gov.in/press-releases.htm?dtl/33787/Passage\\_of\\_USS\\_John\\_Paul\\_Jones\\_through\\_Indias\\_EEZ](https://www.mea.gov.in/press-releases.htm?dtl/33787/Passage_of_USS_John_Paul_Jones_through_Indias_EEZ).

Zones Act 1976, which provides for India's legal position on foreign military presence in the EEZ, is subject to the vagaries of its political interests. In international politics, the legal tail seldom wags the political dog.

## Law of the Sea and the Freedom of Political Navigation

India's approach to the evolving legal regime on the law of the sea in the 1970s cannot be divorced from India's politico-strategic imperatives. In South Asia, India was one of the first states to openly endorse the EEZ provision in the United Nations Convention on the Law of the Sea (UNCLOS). With a total area of 587,600 square nautical miles under its EEZ, India was one of the top beneficiaries of the emerging resource jurisdiction in the high seas. As everywhere else in the developing world, the fundamental impulse to claim the EEZs was "resource-oriented".<sup>3</sup> However, the motivation to claim the EEZs was not purely economic.

*Such an extension of territorial jurisdiction could engender new "psycho-legal boundaries" against the military presence of hostile great powers in the Indian Ocean.*

Like the rest of the Third World, India was equally enthused by the prospect that the global politico-legal trend on the EEZs may help extend the territorial sovereignty of the coastal states into the high seas. Such an extension of territorial jurisdiction could engender new "psycho-legal boundaries" against the military presence of hostile great powers in the Indian Ocean.<sup>4</sup> In the face of material constraints on its naval power, the law of the sea was a perfect combination of diplomacy, legality and morality for India to achieve its immediate objectives in the region. India's interests and expectations from the ongoing negotiations on the law of the sea were principally responsible for enacting its domestic law – the Maritime Zones Act 1976 – even before the UNCLOS was fully negotiated. As one of the Indian negotiators in the UNCLOS argues, it was an "umbrella legislation" proclaiming India's claims in "anticipation of their acceptance at Third UNCLOS".<sup>5</sup> India's domestic law laid out the maximum extent of India's

<sup>3</sup> O P Sharma, "An Indian Perspective", *Marine Policy*, Vol. 29 No. 2 (2005), pp. 147-151.

<sup>4</sup> Ken Booth, "Naval Strategy and the Spread of Psycho-Legal Boundaries at Sea", *International Journal*, Vol. 38, No. 3, Ocean Politics (Summer, 1983), pp. 373-396.

interests, not its obligations, following the negotiation of the UNCLOS III. In the letter, the Maritime Zones Act not only required prior notification for movement of any foreign warships in India's EEZ, but the Indian Government could also restrict or regulate the freedom of navigation in 'designated areas' of its EEZ if deemed necessary in the "interests of the peace, good order or security of India."<sup>6</sup> Prima facie, both these provisions of the domestic law were in contravention of the customary law of freedom of navigation on the high seas.

*Prima facie, both these provisions of the domestic law were in contravention of the customary law of freedom of navigation on the high seas.*

India's appeal for acceptance of these provisions during the negotiation of the UNCLOS was declined, and the final version of the UNCLOS upheld the freedom of navigation of foreign warships. In the light of the final treaty document, as O P Sharma argues, "India had an obligation to modify these provisions after India formally ratified the treaty".<sup>7</sup> However, once codified in domestic law, India's maximalist position could hardly be revised and entailed high political costs for the government.

The legal incompatibility in India's domestic law and its international treaty commitments can easily be traced to resource nationalism, ideological adherence to Third World solidarity and a belief that the momentum of global politics was shifting in favour of the non-aligned. However, it was equally driven by the imperative to reduce India's vulnerability against political intimidation by hostile great powers and the aspiration to establish New Delhi's supremacy in the region. The strategic context of India's legal manoeuvring is vital to understanding why the Indian government has remained relatively silent on the issue of FONOPs and the presence of foreign navies in the Indian Ocean.

Reducing vulnerability from political intimidation by hostile great powers may have been India's immediate interest, but its own long-time goal of regional supremacy necessitated its rise as a naval

<sup>5</sup> O P Sharma, "Enforcement jurisdiction in the exclusive economic zone-The Indian experience", *Ocean Development and International Law*, Vol. 2, No. 2, p. 157.

<sup>6</sup> The Territorial Waters, Continental Shelf, Exclusive Economic Zone and other Maritime Zones Act, 1976, [https://legislative.gov.in/sites/default/files/A1976-80\\_0.pdf](https://legislative.gov.in/sites/default/files/A1976-80_0.pdf).

<sup>7</sup> O P Sharma, *The International Law of the Sea: India and the UN Convention of 1982* (New Delhi: Oxford University Press, 2010), p. 218.

*The possibility that India might someday become a significant naval power could shift the balance of New Delhi's interests closer to those of established maritime powers.*

power. These contradictory interests played out in both the debate surrounding the enactment of the Maritime Zones Act 1976 and its subsequent implementation. India may have been materially weak, but it aspired to be a great power. Insofar as legal commitments could become tomorrow's constraints, India had to tread carefully. The possibility that India might someday become a significant naval power could shift the balance of New Delhi's interests closer to those of established maritime powers. Such a possibility was given due recognition by the Ministry of External Affairs and the Ministry of Defence. The top-secret assessment made by the Legal Treaties Division in 1976 mentioned the Indian Navy's "right to navigation" and the right to "exercise of freedom of navigation" in the high seas.<sup>8</sup>

However, the emergence of the EEZ regime created complications for the Indian Navy vis-à-vis its smaller littoral neighbours in the Indian Ocean. If India was using the logic of the law to restrict great power presence in its surrounding waters, the smaller states could request New Delhi of the same courtesy. Moreover, even when a state with a mediocre navy could ignore these restrictions, it could become a headache once it achieves maritime greatness, as India eventually aimed to. The Ministry of Defence's (MoD) view was soon validated as Pakistan, Myanmar, Bangladesh and Sri Lanka enacted maritime laws in the mid-1970s requiring prior consent, resulting in restrictions on India's freedom of manoeuvrability in the region.<sup>9</sup> Moreover, Malaysia and Indonesia could use the new law to claim sovereignty over major navigational chokepoints such as the Malacca Straits. These concerns were incorporated into India's domestic law, its negotiating strategy in the UNCLOS, and the implementation of its domestic maritime law over the presence of foreign navies in its EEZ.

First, during the first UNCLOS held in Geneva in 1958, India had gone along with the rest of the Third World, insisting on both notification and authorisation for the passage of foreign warships through its

<sup>8</sup> National Archives of India, "Legal and Treaties Division: Incidents of Snooping/Buzzing by US Orion (MR/ASW Aircraft) over Indian Naval Ships", 3 July 1976, Ministry of External Affairs, WII/109/9/9/75.

<sup>9</sup> Bimalkumar Natwarlal Patel, "The state practice of India and the development of international law: selected areas", Unpublished Thesis, University of Leiden, 1970, p. 74.

territorial waters.<sup>10</sup> The provision was, however, defeated at the insistence of the major maritime powers. As New Delhi prepared to negotiate UNCLOS III, it confronted a dilemma regarding the passage of foreign warships through its EEZ. Given the growth of the Indian naval power, its material situation has changed significantly since 1958. Therefore, unlike in 1958, on the advice of the MoD, New Delhi dropped the condition of consent. This change in India's position was primarily motivated by the prospect of its maritime rise and future naval operations in other countries' EEZs. As Sharma explains,

“On the eve of the convening of UNCLOS III, an in-depth examination of this (authorisation and notification) was carried by the Ministry of Defence and it was concluded that India, being herself a growing maritime power, should not insist on the requirements of prior authorisation but should support only the less restrictive requirement of prior notification.”<sup>11</sup>

Therefore, India's approach was neither driven by legalism nor by notions of right or wrong; New Delhi was trying to juggle its immediate and prospective political interests. India's immediate interests supported the notion of *mare clausum*; its prospective rise needed *mare liberum*.

*India's immediate interests supported the notion of mare clausum; its prospective rise needed mare liberum.*

Therefore, as Indian naval capabilities grew, the MoD's insistence on demanding “less restrictive requirements” from foreign navies also gained greater currency in India's approach.<sup>12</sup> If the 1976 Act requires consent by all foreign warships to “enter and pass-through” India's EEZ, the 1995 declaration simply states an ‘understanding’ that the “provisions of the Convention do not authorise other States to carry out in the exclusive economic zone and on the continental shelf military exercises or maneuvers, in particular those involving the use of weapons or explosives without the consent of the coastal

<sup>10</sup> Foreign Broadcast Information Service, “Territorial waters Proclamation”, 27 March 1956 (FBIS-FRB-56-060); and O P Sharma, *Enforcement jurisdiction in the exclusive economic zone*, p. 168.

<sup>11</sup> O P Sharma, *Enforcement jurisdiction in the exclusive economic zone*, op.cit. p. 168.

<sup>12</sup> Ibid.

*The shift creates higher standards before Indian law could be applied to the presence of foreign warships and creates a distinction between navies that India may perceive to be friendly and those it deems hostile to its interests.*

state.”<sup>13</sup> The 1995 declaration is less restrictive than the 1976 Act in two ways. First, India’s interpretation of the UNCLOS does not result in a legal obligation: “An understanding is not a requirement. India has never sought to enforce this understanding against any [US Navy] ships.”<sup>14</sup> Second, from “all foreign warships” under the 1976 act, the 1995 declaration only targets those involved in “military exercises or manoeuvres.” The shift creates higher standards before Indian law could be applied to the presence of foreign warships and creates a distinction between navies that India may perceive to be friendly and those it deems hostile to its interests.<sup>15</sup> The declaration on India’s position on foreign warships in the EEZs has evolved towards greater support rather than restrictions on freedom of navigation in the high seas. Politics, not law, guided India’s behaviour on the UNCLOS in the 1970s, and it has been the same since then.

Second, similar reasoning applied to India’s position on major navigational pathways or chokepoints such as the Malacca Straits. Insofar as the general trend in the UNCLOS was one of extending the limits of territorial sovereignty to the high seas, “creeping territorial seas” threatened to restrict “access of warships through straits used for international navigation where passage had previously been free.”<sup>16</sup> The extension of territorial seas to 12 nautical miles may have allowed countries such as Malaysia and Indonesia to challenge the status of the Malacca Straits as high seas corridor and claim sovereignty over the same. It was one of the principal worries of the Indian establishment even during the 1958 Geneva conference. As a secret report prepared by the MEA argued in February 1976, India’s fundamental interest in Southeast Asia was that the “Malacca straits remain free and open to the Indian Navy.”<sup>17</sup> India, therefore, agreed with major maritime powers over the incorporation of a new regime of “unimpeded transit passage” in the UNCLOS, which was

<sup>13</sup> See India Declaration Upon Ratification 1995, United Nations, [https://www.un.org/depts/los/convention\\_agreements/convention\\_declarations.htm](https://www.un.org/depts/los/convention_agreements/convention_declarations.htm).

<sup>14</sup> Lalit Kapur, “Reading the John Paul Jones FONOPS Right”, Delhi Policy Group, 14 April 2021, [https://www.delhipolicygroup.org/publication/policy-briefs/reading-the-uss-john-paul-jones-fonop-right.html#\\_ftn21](https://www.delhipolicygroup.org/publication/policy-briefs/reading-the-uss-john-paul-jones-fonop-right.html#_ftn21)

<sup>15</sup> Interview with a senior naval officer, 22 April 2021, New Delhi.

<sup>16</sup> OP Sharma, Enforcement jurisdiction in the exclusive economic zone, op cit. p. 173.

<sup>17</sup> National Archives of India, “India’s Policy towards the Southeast Asia”, 24 February 1976, Ministry of External Affairs, File No. HI/ 103(5)/76.

an improvement over the earlier right of “innocent passage” in the territorial seas. It is enshrined in Article 38(2) of the UNCLOS treaty.

Third, India's realpolitik was also visible in implementing its domestic laws in its EEZs. Even when the Maritime Zones Act 1976 allowed India to close parts of its EEZs to foreign warships, New Delhi never implemented the law. It has hardly ever declared any special or designated areas as out of bound to navigation of foreign warships. Instead, to protect its offshore oil installations, New Delhi has declared them “cautionary zones” where foreign navies could voluntarily submit to regulated movement.<sup>18</sup> Furthermore, as one official from India's National Security Council argued in an interview, “The Navy has seldom employed coercive measures against foreign navies transiting or operating through India's EEZs.”<sup>19</sup> The only public account of the Indian Navy physically challenging a foreign navy ship occurred in November 2019 when an Oceanic Research Vessel Shi Yan-1 by the People's Liberation Army Navy (PLAN) was forced to leave the Andaman Sea.<sup>20</sup> The Indian Navy justified its actions by labelling the activities of Shi Yan as violating India's 1995 declaration, “[The] EEZs are international waters, but if we find Chinese ships engaging in what we perceive to be military manoeuvres, we chase them away (emphasis added).”<sup>21</sup> The factor of ‘perception’, not the letter of the law, is the most critical element of India's practice.

*The factor of ‘perception’, not the letter of the law, is the most critical element of India's practice.*

Some Indian analysts have called out India's legal hypocrisy in differentiating between the US Navy ships and the PLAN ships operating in India's EEZ.<sup>22</sup> This criticism is mistaken for two reasons. First, accepting the letter of India's domestic law or its declaration of reservations on the eve of its ratification of the UNCLOS in 1995 as the gospel truth of India's position is highly mistaken. As the discussion above underlined, the question of foreign warships in

<sup>18</sup> O P Sharma, Enforcement jurisdiction in the exclusive economic zone, op.cit. p. 169.

<sup>19</sup> Interview with an official from National Security Council, 20 April 2021.

<sup>20</sup> Rajat Pandit, “Indian warships chase away Chinese vessel near A&N Islands, amid ongoing shadow-boxing in IOR”, *The Times of India*, 4 December 2019, <https://timesofindia.indiatimes.com/India/indian-warships-chase-away-chinese-vessel-near-an-islands-amid-the-ongoing-shadow-boxing-in-ior/articleshow/72353612.cms>.

<sup>21</sup> Ibid.

<sup>22</sup> Manoj Joshi, “India ‘Chased’ a Chinese Ship from its EEZ but US Intrusions Go Unchallenged”, *The Wire*, 5 December 2019, <https://thewire.in/world/india-china-ship-andaman-eez-unclos-us>.

*Today, India's political interests align with the US and clash with China.*

India's EEZ was never about legalities but political interests. Today, India's political interests align with the US and clash with China. The US naval movement in the Indian Ocean does not threaten India's interests; the PLAN, on the other hand, is India's primary challenge.

Second, India's domestic law leaves enough space for the Indian decision-makers to decide on the intent of the foreign warships transiting or operating in the Indian Ocean. The law allows for the benign passage of ships not involved in hostile military exercises or manoeuvres. Still, the distinction between benign and hostile intentions is a political, not a legal, determination. In the end, how India implements its laws is primarily dependent on two factors: whether it is interested in physically challenging those who may be technically in violation of its domestic laws and whether it has the power to do so. New Delhi has no such interest in stopping the Americans, and it has all the reasons to challenge the PLAN in its backyard.

However, regurgitating legalities is simply futile without the requisite capacity to surveil the high seas and physically escort the violators out of its EEZ. It requires India to develop the requisite capability for maritime domain awareness to identify violations and build enough naval muscle to challenge the same. Without such a capability, the law has no meaning at all. It was evident when a Chinese nuclear submarine transited through the Indian Ocean on its way to the Gwadar port in Pakistan in 2014. Chinese authorities did notify the Indian Defence Attaché in Beijing, but only after the act was already commissioned.<sup>23</sup> In any case, New Delhi will be foolhardy to believe that Beijing will be deterred from naval movements in the Indian Ocean because India has a certain interpretation of the law. China will do what is in its best interests and will only be deterred by India's military capacity to safeguard its interests and implement its version of the law. The latter is greatly augmented by India's close military cooperation with the US. India's balance of interests dictates that the passage of USS John Paul Jones must be seen merely as a storm in a teacup rather than a major crisis in India-US relations.

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<sup>23</sup> Interview with a senior naval officer, 22 April 2021.

The history of India's legal positioning during the UNCLOS, the process of enacting its domestic laws, and their implementation attest to the fact that Indian decision-makers have never allowed the legal tail to wag the political dog. Notwithstanding the idealistic perceptions of India's foreign policy, New Delhi has a tradition of safeguarding its interests in the Indian Ocean through realpolitik. In the absence of material power, it may have employed diplomacy, law, and norms to secure its interest. More often than not, it cannot be accused of being blind to international politics' fundamental forces: power and interests. The same logic drives India's contemporary approach to the Indian Ocean and the India-US strategic partnership.

*The same logic drives India's contemporary approach to the Indian Ocean and the India-US strategic partnership.*

## Conclusion

This paper laid bare the political underpinnings of India's engagement with the law of the seas and the domestic law concerning its maritime responsibilities. India has seldom allowed the law to determine its political behaviour; its national interests have defined its negotiating behaviour in legal forums, the scope of the laws it has pursued or enacted, and the laws' application within India's maritime sphere of influence. India's legal position may appear to be in contradiction of its Quad friends, but its political practice assures that it remains politically aligned with the freedom of navigation in the high seas.

# Japan's Approach to the Freedom of Navigation in the High Seas<sup>1</sup>

*Phedra Neo Pei En, Nishant Rajeev and Yogesh Joshi*

## Summary

*The Freedom of Navigation Operations (FONOPs), which began modestly under the Barack Obama administration, has gained momentum under the successive Donald Trump and Joe Biden administrations. There is now a desire to increasingly involve allies and partners in these efforts to challenge China's expansive maritime claims and confront its grey zone operations. This paper will explore Japan's perspective on the FONOPs and its legal underpinnings. It will also highlight Japan's efforts to bolster the rule of law in the high seas. It begins with an overview of the legal challenge from China to Japan's claims in the East China Sea and examines Japan's position on the FONOPs and the reasons for this stance. It concludes with possible next steps.*

## Introduction

*China has forcefully pursued its claims through grey zone operations.*

China's challenge to the existing maritime order poses a direct threat to Japan. Being a maritime nation dependent on open sea lines of communication, Japan is directly impacted by China's attempts to assert territorial control over international waters. The immediate threat to Japan lies in China's challenge to Japanese sovereignty over its own territorial waters and exclusive economic zone (EEZ) as well as its claims to the Senkaku islands. China has forcefully pursued its claims through grey zone operations. The Japanese government has been clear on its position — it supports the current interpretation of the innocent passage and American FONOPs.

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<sup>1</sup> This paper has been prepared by the authors based on a presentation and remarks made by Professor Tetsuo Kotani at the ISAS workshop on 'Quad Cooperation: Maritime Security in the Indo-Pacific' on 2 March 2022.

## China's Legal Warfare

After the Japanese government purchased the Senkaku Islands from a private developer in 2012, Beijing has vigorously challenged Tokyo's claims to the islands. Subsequently, the Chinese government made a submission to extend its continental shelf through the Senkaku Islands to the United Nations Commission on the Limits of the Continental Shelf and Beijing announced new baselines for territorial sea from its claims on the Senkaku Islands. The Japanese government has maintained the position that the demarcation of the continental shelves should be based on the median line between the Chinese and Japanese coasts. In contravention of the international regime, Chinese domestic law guarantees freedom of navigation in its EEZ but denies freedom in China's "historic waters." China's EEZ claims are based on the historical "occupation" of the waters in the Yellow Sea, East China Sea and the South China Sea. Thus, Beijing has openly challenged foreign naval vessels operating in these areas and obstructed foreign navies' surveillance activities in its EEZ.

China further refuses to recognise the airspace above its EEZ as international airspace. These legal claims form a part of its broader anti-access strategy in the region.<sup>2</sup> It has followed a similar strategy in the South China Sea. Beijing has tried to justify its claims in the region based on the concept of "historical waters", promulgated under the nine-dash line. The Hainan Provincial administration has also instituted regulations, allowing it to board, inspect and seize vessels within the island's 12 nautical mile territorial sea. It further calls on foreign vessels to "respect China's national laws and refrain from any actions that would harm public order".<sup>3</sup> The arbitrary use of these provisions can threaten the "innocent passage" of foreign vessels, a concept that is part of the international law of the sea.

<sup>2</sup> Tetsuo Kotani, "Freedom of Navigation and the US-Japan Alliance: Addressing the Threat of Legal Warfare", Japan Center for International Exchange, US-Japan Papers (December 2011), pp. 1-6, <http://www.jcie.org/researchpdfs/USJapanPapers/Kotani.pdf> ; and Tetsuo Kotani, "Maintaining Good Order at Sea in Asia: Opportunities and Challenges", in *Maritime Security and Piracy: Common Challenges and Responses from Europe and Asia*, ed. Dr Wilhelm Hofmeister & Patrick Rueppel (Singapore: EU-Asia Dialogue, 2014) pp. 107-117.

<sup>3</sup> M. Taylor Fravel, "Hainan's New Maritime Regulations: An Update", *The Diplomat*, 3 January 2013, <https://thediplomat.com/2013/01/hainans-new-maritime-regulations-an-update/>.

*Chinese vessels have also been more assertive in their presence, leading to frequent physical contact between opposing vessels.*

To support and enforce its claims, China has predominantly deployed paramilitary vessels to confront foreign vessels operating in these disputed waters. The Chinese Coast Guard (CCG) has been at the forefront of these efforts. Chinese government vessels have made increasing forays into the territorial sea around the Senkaku islands and established a near-continuous presence in the island's contiguous zone. Chinese vessels have also been more assertive in their presence, leading to frequent physical contact between opposing vessels. Moreover, Beijing has attempted to bolster its claims by using rigs for oil and gas exploration to establish a long-term presence in the area.<sup>4</sup> For now, most deployments have remained on the Chinese side of the median line of the East China Sea, which Japan claims as the boundary between its continental shelf and that of China. However, these deployments are coming closer and closer to the median line.<sup>5</sup> The aircraft under the People's Liberation Army (PLA) regularly conduct surveillance and combat air patrol sorties and training in the East China Sea to operationalise the air defence identification zone China declared over the sea in 2013. The PLA is increasingly operating in airspace closer to Okinawa and the rest of the Ryukyu Islands, with some flights closer to the Senkaku Islands. As a result, the Japan Air Self-Defense Force scrambled against the PLA incursions 571 times in the fiscal year 2015, 851 times in the fiscal year 2016, 500 times in the fiscal year 2017, 638 times in the fiscal year 2018, and 675 times in the fiscal year 2019.<sup>6</sup>

Adding a layer of complexity to the challenge posed by China is the ever-increasing possibility of Sino-Russian collusion during a conflict in the East China Sea. In October 2021, 10 warships from Chinese and Russian navies conducted a joint patrol through the East China Sea, circumnavigating Japan. Both navies had already been increasing cooperation in the area through joint exercises. In June 2016, vessels from both navies simultaneously entered the Senkaku Islands' contiguous zone. In July 2019 and December 2020, China and Russia

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<sup>4</sup> Zack Cooper, "Flashpoint East China Sea: Potential Shocks", Center for Strategic and International Studies, Asia Maritime Transparency Initiative, 27 April 2018, <https://amti.csis.org/flashpoint-east-china-sea-potential-shocks/>.

<sup>5</sup> Ibid.

<sup>6</sup> Franz-Stefan Gady, "Japan Intercepted Chinese Military Aircraft 675 Times in Fiscal Year 2019", *The Diplomat*, 10 April 2020, <https://thediplomat.com/2020/04/japan-intercepted-chinese-military-aircraft-675-times-in-fiscal-year-2019/>.

officially announced that their strategic bombers had conducted “joint flights” from the Sea of Japan to the East China Sea.<sup>7</sup>

## Japan's Position on Law of the Sea and Freedom of Navigation

Japan supports the international law of the sea, including provisions for innocent passage through territorial waters of foreign countries. Tokyo understands this to mean no prior notification or approval is required for such passage, and it is open to all ships, including foreign warships and government ships. The actions of the CCG in the territorial waters around the Senkaku Islands in the East China Sea, however, are not regarded by Japan as innocent passage. The actions of the CCG in the territorial sea around the Senkaku Islands are an avenue to challenge Japanese sovereignty over the islands and legitimise a new status quo. Hence, the Japanese Coastguard and Navy regularly challenge such actions. However, Japan understands that warships and government ships are exempted from coast guard regulations. Hence, Chinese vessels are requested to leave Japan's territorial waters without taking any compulsory measures. Regarding the military exercises in the EEZ of foreign countries, Japan believes that foreign militaries can conduct exercises in the EEZ. Therefore, Tokyo has allowed China and other navies to conduct military exercises in its EEZ. In accordance with Japan's stated position, there have been no protests lodged when these exercises are conducted, but the Japanese Self-Defense Force monitors such activities closely.

*The actions of the CCG in the territorial sea around the Senkaku Islands are an avenue to challenge Japanese sovereignty over the islands and legitimise a new status quo.*

Finally, to promote the navigation of the high seas in the international straits (rather than a simple transit passage), Japan has elected to designate the Tsushima Strait, Tsugaru Strait, Soya Strait and the Osumi Strait as “Designated Sea Areas” under Japanese domestic law. In these three straits, Japan claims only three nautical miles for territorial waters. Thus, when 10 Chinese and Russian navy ships passed through these straits in October 2021, Japan interpreted that

<sup>7</sup> Tetsuo Kotani, “The Threat of a Sino-Russian Fleet Circumnavigating Japan”, *The Diplomat*, 14 November 2021, <https://thediplomat.com/2021/11/the-threat-of-a-sino-russian-fleet-circumnavigating-japan/>.

the navies were simply conducting high seas freedom rather than transit passage.

Currently, Japan does not have an official freedom of navigation programme or freedom of navigation operation as defined by the United States (US). However, the Japanese government does support the US Freedom of Navigation operations. In 2016, the Japanese Government made it clear that Tokyo supports the US FONOPs in the South China Sea because it understands that American operations in the South China Sea reinforce and uphold the rule-based maritime order. While the Japanese Navy does not conduct FONOPs or participate in the US FONOPs, it has undertaken combined exercises with coastal states and maritime powers in the South China Sea and capacity building for the Association of Southeast Asian Nations (ASEAN) member countries.

*Most visibly, Japan has been an active participant in the Malabar naval exercise series with India and the US.*

Additionally, Japan has been undertaking Inter-Pacific deployments since 2017, dispatching naval vessels to the South China Sea and the Indian Ocean. Several of these deployments are led by the Japanese helicopter carrier Izumo.<sup>8</sup> It has also been conducting exercises with allied and partner navies in the South China Sea. Most visibly, Japan has been an active participant in the Malabar naval exercise series with India and the US. The 2021 edition of the exercise was conducted in the Philippine Sea. Japan was represented by three destroyers — JS Kaga, JS Murasame and JS Shiranui.<sup>9</sup> The Japanese Navy has also held joint exercises with the US Navy and European partners like the United Kingdom and France.<sup>10</sup> In addition, Japan has supported the development of navies and coastguards of coastal states in the South China Sea through the transfer of military equipment and training programs.

<sup>8</sup> “The Izumo Deployment: Japan’s Hat in the Ring”, *Asia Sentinel*, 22 May 2017, <https://www.asiasentinel.com/p/japan-izumo-warship-deployment?s=r>.

<sup>9</sup> “First phase of annual maritime exercise Malabar 2021 commences”, *Naval Technology*, 27 August 2021, <https://www.naval-technology.com/news/maritime-exercise-malabar-2021-commences/>.

<sup>10</sup> Martin Manaranche, “UK, United States And Japan Complete Joint Exercise In The Pacific”, *Naval News*, 25 August 2021, <https://www.navalnews.com/naval-news/2021/08/uk-united-states-and-japan-complete-joint-exercise-in-the-pacific/>; and “France leads naval exercise with US, UK and Japan in American territory of Guam in the Pacific”, *South China Morning Post*, 12 May 2017, <https://www.scmp.com/news/world/united-states-canada/article/2094027/france-leads-naval-exercise-us-uk-and-japan-american>.

Despite these activities, the Japanese government is not ready to directly participate in the US freedom of navigation operations. There are two primary reasons for this. The first is the lack of crisis management mechanisms with China. Japan and China have established a crisis communication mechanism, which only applies to the East China Sea. There are no governance mechanisms for crisis management in the distant seas. Secondly, the Japanese government is not able to clarify what kind of land features in the Spratly islands could be islands or rocks or low tide innovation. Thus, there is not yet a clear model to challenge China's claims through the FONOPs. Moreover, Japan has given up all claims in the South China Sea in the San Francisco peace treaty. However, moving forward, Tokyo can utilise the foundation provided by the 2016 arbitration that laid the foundation for the legal positions of landed features in the Spratly islands.<sup>11</sup>

*There are no governance mechanisms for crisis management in the distant seas.*

## Next Steps and Conclusion

The most immediate step is to promote Japan's partnership with the Southeast Asian countries and the small island states in the South China Sea. Japan has already been ahead of the curve and accomplished much with states in Southeast Asia and the Pacific Islands. Enhancing the capacity building and training exercises in these countries can help to promote order and stability. These efforts should continue to be one of Japan's focus areas. Japan can also extend diplomatic support to maritime security initiatives undertaken by ASEAN and vie for a constructive role for the ASEAN countries to negotiate a code of conduct with China to improve confidence building and crisis management.

For the Quadrilateral Security Dialogue (Quad), an ideal first step would be to establish identical interpretations of the laws of the sea

<sup>11</sup> In 2013, the Philippines initiated proceedings against China under Annex VII of the United Nations Convention on the Law of the Sea. Three years later, the Arbitral Tribunal passed its "unanimous Award" decision, which bolstered "the Philippines' claims on the South China Sea at the expense of China's claims of historic rights behind the infamous nine-dash line". See "Special Issue of the South China Sea Arbitration: Responses and Implications", ASEAN Focus, ISEAS-Yusof Ishak Institute and ASEAN Studies Centre, July 2016, <https://www.iseas.edu.sg/images/pdf/ASEANFocusSouthChinaSeaArbitration.pdf>.

*At this juncture, efforts to narrow the gap between the divergent interpretations of laws of the seas and dialogue are the right step.*

for all member countries. But, in reality, it is very difficult. India has a very different understanding of the law, and the US is not a member of the United Nations Convention on the Law of the Sea (UNCLOS). At this juncture, efforts to narrow the gap between the divergent interpretations of laws of the seas and dialogue are the right step. However, the Quad's efforts will continue to be constrained if these issues are not resolved. In the Quad Foreign Ministers' joint statement, there was mention of establishing a Track 2 dialogue among the Quad think tanks.<sup>12</sup> Currently, there is no concrete agenda for this Track 2 scheme yet, but the interpretation of the UNCLOS could be one of the topics to be discussed by the think tanks. It would not be an easy task to change each member's interpretation, mainly because of the entanglement of domestic politics, but it is important for the experts to discuss these sensitive issues to enhance understanding within the Quad.

Ultimately, China's legal warfare in Asia's littorals has the potential to change the status quo if it goes unchallenged. The Chinese government has been stepping up its efforts to this end. While the Quad's efforts have been in the right direction, establishing a more coherent response is both essential and urgent.

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<sup>12</sup> "Joint Statement on Quad Cooperation in the Indo-Pacific", Media Note, Office of the Spokesperson, US Department of State, 11 February 2022, <https://www.state.gov/joint-statement-on-quad-cooperation-in-the-indo-pacific/>.

## Appendix 1

### About the Authors

**Dr Yogesh Joshi** is a Research Fellow at the Institute of South Asian Studies (ISAS) at the National University of Singapore. Before joining ISAS, Dr Joshi was a MacArthur and Stanton Nuclear Postdoctoral Fellow at the Centre for International Security and Cooperation, Stanford University, United States. He is also an alumnus of the Summer Workshop on the Analysis of Military Operations and Strategy, Columbia University and the International Nuclear History Boot Camp, Woodrow Wilson Centre. He has a doctorate in International Politics from Jawaharlal Nehru University, New Delhi.

Dr Joshi is the co-author of three books: *India and Nuclear Asia: Forces, Doctrines and Dangers* (Georgetown University Press, 2018); *Asia's Emerging Balance of Power: The US 'Pivot' and Indian Foreign Policy* (Palgrave Macmillan, 2016); and *India's Nuclear Policy: A Short Introduction* (Oxford University Press, 2018). His research has been published in *Survival*, *Asian Security*, *India Review*, *US Naval War College Review*, *International Affairs*, *Contemporary Security Policy*, *Diplomacy and Statecraft*, *Asia Policy*, *International History Review* and *Harvard Asia Quarterly*.

Dr Joshi's research focusses on contemporary Indian foreign and national security policy, with an emphasis on the Indo-Pacific's balance of power, the evolution of India's military power and its approach to the use of force in international relations.

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Mr Rajeev earned his Master of Science (Strategic Studies) from RSIS. He holds a Bachelor of Engineering degree from the RNS Institute of Technology and a Graduate Certificate in Public Policy from the Takshashila Institution, both based in Bangalore, India.

**Dr Samir Puri** is Senior Fellow in Urban Security and Hybrid Warfare at the International Institute for Strategic Studies, based in Singapore. He is also a Visiting Lecturer in the Department of War Studies, King's College London.

Dr Puri has authored *The Great Imperial Hangover* (Atlantic, 2020). The book was described as "an excellent read" by Robert Kaplan; "enlightening" by *The Spectator*; "an exceptional account, both personal and scholarly" by Prospect; and offering "penetrating insights into the way the legacies of empire still affect the behaviour of states and the international climate" by the *Financial Times*. Published in the United States as *The Shadows of Empire* (Pegasus, 2021), Fareed Zakaria called it "well written, comprehensive and judicious" in *The New York Times*.

Dr Puri's career combines academia and public service. In 2020, he advised Downing Street's Race Commission on how imperial legacies influence Britain. In 2018-19, he was Assistant Head of Research at the Ministry of Defence's think tank, Development Concepts and Doctrine Centre. In 2017, he was seconded to the Commonwealth Secretariat to author its strategy on countering violent extremism. From 2015 to 2018, he was a Lecturer in War Studies, teaching graduate courses on Counter Terrorism, Contemporary Warfare and Conflict, Security and Development. He also taught Strategy and Policy as an Adjunct Professor at the Johns Hopkins School of Advanced International Studies in Bologna. From 2009 to 2015, Dr Puri worked for the Foreign Office, where his assignments covered counter-terrorism and policy support for peace processes. He was seconded for a year to monitor the war in east Ukraine with the Organization for Security and Co-operation in Europe. From 2006-09, he was a Defence Analyst at RAND Europe.

Dr Puri holds a PhD from Cambridge University, an MA in War Studies from King's College and a BA in History and Politics from Warwick University.

**Mr Jeremy Lau Yi-Ren** is currently a Business Development Manager at Enterprise Singapore. He previously worked as a research intern at the International Institute for Strategic Studies, Asia office, in 2022. Mr Lau earned his Master's Degree in Public Policy from the University of Tokyo. He graduated from King's College London with a Bachelor's degree in International Relations.

**Vice Admiral Yoji Koda (Retired)** was formerly from the Japan Maritime Self Defense Force (JMSDF) with surface warfare specialty. He is a graduate of the National Defense Academy (NDA, 1972), and from 1991 to 1992, he was a student at the Naval Command College in the United States Naval War College. After 40 years of service in the NDA and JMSDF, he served as Commander in Chief, Self Defense Fleet, from 2007 until his retirement in 2008. In 2009 to 2011, Vice Admiral Koda became a senior fellow at Harvard University's Asia Center, where he worked on the Chinese naval strategy. He has also served as an advisor to the National Security Secretariat. He is an erudite strategic thinker and an engaging speaker on naval power and contemporary security subjects.

Vice Admiral Koda is also a proficient writer on maritime affairs and military history. His articles include 'Japanese Perspective on China's Rise as a Naval Power' (*Harvard Asia Quarterly*, Winter, 2010) and 'Maritime Strategy and National Security in Japan and Britain' (*Leiden and Boston, Global Oriental*, 2012).

**Rear Admiral Sudarshan Shrikhande (Retired)** served 36 years in the Indian Navy and retired in 2016. In flag rank, he headed Naval Intelligence; was Chief of Staff of Southern Naval Command; and served in the Headquarters Integrated Defence Staff (HQIDS) and Strategic Forces Command, among others. He is an Anti-Submarine Warfare specialist and has commanded three ships and spent several years at sea in other ships. A 1979 graduate of the National Defence Academy, he is also a post-graduate of the Soviet Naval War College (NWC), St Petersburg (1988) in weapon and sonar engineering; Indian Staff College (1985) where he was awarded the Scudder Medal; Indian NWC (2002) and of the United States (US) NWC, with the highest distinction where he won the Robert Bateman and Jerome Levy first prizes as well as the Forrestal Seminar prize and was the US NWC class president in 2003.

In retirement, Rear Admiral Shrikhande teaches strategy formulation, military history, operational art, force planning, RMA, China, the Indo-Pacific, the Peloponnesian War, leadership and ethics at the Indian NWC, where he is an adjunct professor. He also teaches some of these subjects at other military as well as civilian institutions. He writes for several Indian and foreign journals/portals, including the *USNI Proceedings*, and is associated with a few think tanks and academic institutions. He has participated in Track 1.5 dialogues with China and the US and in national and international conferences. He also teaches maritime strategy at The Takshashila Institution, India.

Rear Admiral Shrikhande's academic qualifications include a MSc in Weapon Engineering (Union of Soviet Socialist Republics); MSc in Defence Studies (Madras University); and M Phil (Mumbai University). He lives in Goa, India, and is working towards a PhD in sea-based nuclear deterrence with Mumbai University.

**Dr David Brewster** is a Senior Research Fellow with the National Security College, Australian National University, where he works on the Indian Ocean and Indo-Pacific maritime security. He is also a Distinguished Research Fellow with the Australia India Institute, University of Melbourne. Dr Brewster is a frequent speaker at international security conferences throughout the region and is an Australian delegate to several major Track 1.5 security and defence dialogues. He frequently writes on security developments in the Indian Ocean and Indo-Pacific for numerous publications.

Dr Brewster's books include *India as an Asia Pacific Power*, about India's strategic role in the Asia Pacific and *India's Ocean: The story of India's bid for regional leadership*, which examines India's strategic ambitions in the Indian Ocean. His latest edited volume is *India and China at Sea: Competition for Naval Dominance in the Indian Ocean*, which addresses Indian and Chinese perspectives about their roles in the Indian Ocean and their evolving naval strategies towards each other. He contributed a chapter to *Strategic Asia 2019* titled 'The Red Flag Follows Trade: China's Future as an Indian Ocean Power'. Dr Brewster is also the author of a major new report, *Australia's Second Sea: Facing our Multipolar Future in the Indian Ocean*, which proposes a new roadmap for Australia's strategic engagement in the Indian Ocean.

**Captain Sarabjeet S Parmar** is currently Senior Fellow at the National Maritime Foundation in India. Previously, he served as the Executive Director of the National Maritime Foundation. An alumnus of the National Defence Academy (NDA) Kharakwasla and Defence Services Staff College (DSSC) Wellington, Captain Parmar was commissioned into the Indian Navy on 1 July 1987. He is a Sea King pilot who has commanded two ships and a frontline Sea King Squadron. He was a member of the XI Indian Antarctic Summer Expedition in 1991. He attended the South Asia Regional Governance and Management Defence Course conducted by the British Government at Colombo in 2005. He represented the Indian Navy in the first international HOSTAC (helicopter operations from ships other than aircraft carriers) conference held in Norfolk, United States, in 2008. He has served as Joint Director of Naval Plans in the Directorate of Naval Planning at the Integrated Headquarters of Ministry of Defence (IHQ MoD) [Navy]. He has been directing staff at DSSC Wellington where he was responsible for the national strategy and international law modules.

As a Research Fellow at the Institute for Defence Studies and Analyses (IDSA), New Delhi, from September 2010 to July 2014, Captain Parmar has written on maritime security aspects and presented papers at various national and international conferences. Post-IDSA, he was Director (Strategy) in the Directorate of Strategy Concepts and Transformation at IHQ MoD (Navy) from July 2014 to April 2016, where he worked with a team to revise the Indian Navy's unclassified maritime security strategy document and doctrine. From April 2016 to April 2018, at the Maritime Doctrines and Concepts Centre, he carried out regional maritime assessments and completed the doctrine development plan as the Director Strategic Maritime Assessment and Doctrine Development.

Captain Parmar has written extensively on maritime security issues and is pursuing his PhD at Mumbai University. His thesis will examine the evolving maritime security architecture templates of the Indian Ocean and Western Pacific Regions.

**Professor Donald R Rothwell** is one of Australia's leading experts in International Law with a specific focus on the law of the sea, law of the polar regions, use of force and implementation of international law within Australia. He is the author of 24 books and over 200 book chapters and articles, including with Tim Stephens, the influential and respected academic text, *The International Law of the Sea* (2<sup>nd</sup> edition, 2016). His most recent work is *International Polar Law* (Elgar: 2018), co-edited with Alan Hemmings.

Professor Rothwell has also co-edited with Associate Professor Emily Crawford, the third edition of *International Law in Australia* (Thomson, 2017), which revives a publication that last appeared in 1984 and brings together some of Australia's most eminent international law jurists, practitioners and scholars to assess contemporary developments for Australia and international law. His major career works include *The Polar Regions and the Development of International Law* (Cambridge University Press, 1996) and *International Law: Cases and Materials with Australian Perspectives* 3<sup>rd</sup> (Cambridge University Press, 2018) with Kaye, Akhtarkhavari, Davis and Saunders. Professor Rothwell is also Co-Editor of the *Australian Year Book of International Law* and Editor-in-Chief of the *Brill Research Perspectives in Law of the Sea*. From 2012-2018, he was Rapporteur of the International Law Association (ILA) Committee on 'Baselines under the International Law of the Sea'. He has taught a range of courses, including Law of the Sea, International Dispute Resolution, International Law and Use of Armed Force, International Humanitarian Law, Military Operations Law, and Public International Law.

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