

SCRAMBLE FOR DOMINANCE IN THE INDO-PACIFIC AND ROLE OF AIR POWER

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In the New World Order, the Indo-Pacific is emerging as a strategically integrated arena of competition and cooperation. The rise of China, beyond the South China Sea, across the Indian and Pacific Oceans, challenges the security umbrella strategically established at the end of the Second World War. The Indo-Pacific, representing the new strategic reality of the twenty-first century, is emerging as a new geographic space, bringing together the Indian and the Pacific Oceans. The Indo-Pacific region is the largest maritime zone in the world with India, Indonesia and Australia being the strategic anchor points in the West, Middle and East. Due to the strategic dominance of the area, there has been a steady increase in the number of stakeholders and their “push” to enlarge their area of influence through diplomatic, economic and military means.

In recent years, the race for dominance between emerging power China and established superpower the United States has resulted in a slew of new alliances of different stakeholder groups vying for regional control and share. India in the Indian Ocean, with Australia and Japan in the Pacific Ocean being the next three major stakeholders, were the natural choice for the Quadrilateral Security Dialogue or the Quad with the US. After the pandemic, UK, France, New Zealand, Republic of South Korea (RoK) and

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Germany have also gradually aligned with this group and many more are likely to be forming alliances towards establishing their claim in the region.

HISTORICAL PERSPECTIVE

In the Cold War era, for most of the period, the US and its allies had a certain amount of superiority over the maritime zones. This dominance was challenged by the Soviet navy

under Admiral Sergei Gorshkov (1956-85), who had meticulously built a very capable fleet of missile-armed submarines, surface ships and an effective long-range land-based aviation arm.¹ As a counter, President Ronald Reagan revived the US preponderance by enlarging the fleet under the “600 ship navy” strategy. This renewed capability included carrier-based F-14 (Tomcat) interceptors armed with AIM-54 Phoenix missiles, the Aegis combat system and towed away sonars.² Since then, the US and its allies have maintained sovereignty over the maritime zones, with the US retaining its lead role, particularly in the Pacific Ocean region, through Pacific Command along with Pacific Air Forces (PACAF). Recognising the increasing connectivity between the Indian and Pacific oceans, on May 30, 2018, Secretary of Defense James N. Mattis, officially announced that the US Pacific Command would become US Indo-Pacific Command.³

In 2004, in order to ensure large-scale disaster relief and provide humanitarian aid to countries affected by the Boxing Day tsunami, the four main democratic, economically stable countries, the US, India, Japan and Australia, worked together to form a strategic alliance known as Quad. The

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1. “The Future of Maritime Competition”, *The Military Balance 2021*, February 24, 2021, at <https://www.tandfonline.com/doi/full/10.1080/04597222.2021.1868790>. Accessed on August 19, 2021.
 2. Ibid.
 3. USINDOPACOM History, at <https://www.pacom.mil/About-USINDOPACOM/History/>. Accessed on August 19, 2021.

idea for the Quad was first elucidated by Shinzo Abe, the former Japanese prime minister. He took initiative and set the process rolling for a partnership between Japan and India. This project quickly expanded its reach to encompass the United States and Australia, with the goal of forming a strategic alliance that was termed as an 'arc of freedom and prosperity'.⁴ The Quad thereafter remained dormant till the strategic situation seemed to rapidly change in the post-pandemic period.

In 2013, Xi Jinping launched the most ambitious plan of China—the Belt and Road Initiative (BRI/OBOR) to not only create opportunities for China to amass huge wealth but also create a debt trap for countries who accepted the lucrative OBOR offer. It was nothing more than an economic Trojan horse! The initial target countries were primarily from the African continent and the Central African Republic (CAR), all cash-starved countries that were easy prey for the trap. One of the benefits of economically enslaving such countries was in the form of uncontested selection to UNHRC by their support, as well as control over various ports for sea trade routes. The expansion included countries within the area of interest of China in South China Sea (SCS), Indian Ocean, West Pacific with some of the European countries and Australia as well.

China, in its quest to attain sea control and trade route dominance, resorted to island-building in the Spratly Islands and the Paracel Island regions to increase its maritime limits. The South China Sea disputes involve both island and maritime claims among several sovereign states with China, namely Taiwan, Brunei, Indonesia, the Philippines, Malaysia and Vietnam.

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4. William Choong, "The Revived 'Quad—And an Opportunity for the US", IISS, at <https://www.iiss.org/blogs/analysis/2018/01/revived-quad>, Accessed on August 19, 2021.

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THE DEVELOPING STRATEGIC SITUATION IN THE INDO-PACIFIC

China's steady ascendancy in extending its maritime influence in the Indo-Pacific, an otherwise peaceful marine zone, alarmed various nations, directly or indirectly. India's concern was mainly with China's persistent naval activities in the Indian Ocean, coupled with territorial disputes with China and its growing nexus with Pakistan. Japan, on its part, was concerned about China's incursions into and around the disputed Senkaku islands along with militarisation of the South China Sea. Australia was anxious about Chinese influence increasing in the internal politics of their country, China's foray into the capital market to buy Australian companies as well as China's military build-up in the SCS.⁵ Washington, with its once singular dominance over the region, was increasingly worried about China's expansion into the Indo-Pacific region, which threatened the region's economic and military balance.⁶ Since India is an important strategic partner, while Australia and Japan are treaty allies, working closely with these countries for strategic goals on a common platform like Quad, was natural for the United States.

The strategic and economic significance of the Indo-Pacific cannot be emphasized enough in the current international relations. The Indian Ocean has a growing importance as a geo-economic and geopolitical nerve centre, along with being the most significant trade corridor, where a third of bulk cargo and almost two-thirds of global oil transits. After years of deliberations, finally, India and Japan signed Acquisition and Cross-Servicing Agreement (ACSA), that paved the way for the two countries to have unrestricted access to each other's maritime facilities for maintenance and repairs.⁷

5. Ibid.

6. Sheila A. Smith, "The Quad in the Indo-Pacific: What to Know", Council on Foreign Affairs, May 27, 2021, at <https://www.cfr.org/in-brief/quad-indo-pacific-what-know>. Accessed on August 20, 2021.

7. Rajat Pandit, "To counter China, India inks military pact with Japan", in *Times of India*, September 11, 2020, at <https://timesofindia.indiatimes.com/india/to-counter-china-india-inks-military-pact-with-japan/articleshow/78049864.cms>. Accessed on August 20, 2021.

Such an agreement would have a considerably greater strategic significance in the context of China's unchecked aggression in both the Ladakh area as well as the Senkaku Islands. The ten-year agreement has an in-built safeguard condition of automatic renewal, unless the same is revoked by either of them.⁸ India is already a signatory to similar agreements with France, the US, Singapore, Australia and RoK, who provide mutual sharing rights towards facilitation of naval warships, military aircrafts and logistics supply. Such an agreement of co-operation results in the strengthening of the defence partnerships amongst these nations.⁹ India, through these agreements, has now been able to effectively locate its maritime forces and conduct their operations from certain critical naval bases. These maritime locations include Guam, Djibouti, Subic Bay and Diego Garcia as well as the Reunion Islands off the coast of Madagascar. Importantly, by signing an agreement with Australia in June 2020, Indian ships would now have an unrestricted access to the western Pacific.¹⁰

China has significantly expanded its prowess in the Indian Ocean Region (IOR) over the past three decades. It is causing concern among US and Indian strategists, that the growing naval presence of China along with its use of so-called "debt-trap diplomacy," might give her an edge in the contested region. China claims the majority of the South China Sea's 1.3 million square miles area as its sovereign region. It has been establishing military bases on artificial islands in areas claimed by Brunei, Taiwan, Malaysia, the Philippines and Vietnam.¹¹ The strategic bottleneck in the IOR has been monopolised by investing in geo-economically important ports from Sudan to Hong Kong. In July 2017, Chinese troops established their first overseas military base in Djibouti.¹² At the tactical level, Beijing is reinforcing its defence capabilities

8. Ibid.

9. Ibid.

10. Dhruva Jaishankar, "The Australia-India Strategic Partnership: Accelerating the Security Cooperation in the Indo-Pacific", at <https://www.lowyinstitute.org/publications/australia-india-strategic-partnership-security-cooperation-indo-pacific>. Accessed on August 22, 2021.

11. "Indo-Pacific epicentre of 'great power competition' with China: Esper", PTI, August 27, 2020, at https://www.business-standard.com/article/current-affairs/indo-pacific-epicentre-of-great-power-competition-with-china-esper-120082700534_1.html. Accessed on August 22, 2021.

12. Ibid.

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through military exercises for possible contingencies arising out of the territorial disputes in neighbouring areas like Spratly Islands, Senkaku Islands, Taiwan Strait and the Paracel Islands. Some analysts suggest that

China seems to have used the strategy of salami slicing to impose its will on handling territorial disputes. There have been reports of Chinese military aircraft flying over the skies of the Senkaku Islands/Diaoyu Islands and the Miyako Strait regularly to demonstrate its intent.¹³

Japan’s regional military role is inhibited by its own domestic political constraints and their “peace constitution”. While Japan has been highly active in trying to balance China’s rise, it is also trying to play a greater role in the Quad alliance with US.¹⁴ For Japan, the Quad is a critical amplifier for its objective of supporting the rules-based order under its “free and open Indo-Pacific” framework. At the level of strategic military alliances, Japan has reached out to countries like France and UK, with whom it regularly conducts military exercises. In order to help the littoral states boost their law enforcement capabilities, Japan has also focused on capacity building in Southeast Asia like provisioning of patrol vessels to the Philippines’ and Vietnam’s coast guards. Japan’s vision and approach to Taiwan has changed significantly due to China’s attempts to change the status quo in the region by staking claims on Japan’s Senkaku/Diaoyu Islands.¹⁵

The emerging “Indo-Pacific” strategic construct is based on the Indian and Pacific oceans being seen as interdependent strategic and economic spaces. This has changed Australia’s outlook towards its broader region. Even though the idea of the Indo-Pacific for Australia is principally driven

13.. Daisuke Atimoto, “China’s Grand Strategy and the Emergence of Indo-Pacific Alignments”, ISDP, April 14, 2021, at <https://isdp.eu/chinas-grand-strategy-and-the-emergence-of-indo-pacific-alignments/>. Accessed on August 22, 2021.

14. Mercy A. Kuo, “Japan’s Military Role in the Indo-Pacific”, *The Diplomat*, August 12, 2021, at <https://thediplomat.com/2021/08/japans-military-role-in-the-indo-pacific/>. Accessed on August 22, 2021.

15. Ibid.

by economic considerations, there appears to be a very strong underlying security concern where Australia wishes to keep the US engaged in the region as a balancer and the net security provider.¹⁶ Moreover, another critical factor of the Indo-Pacific Region concept in Australia has been the development of hydrocarbon resources off their northwest coast.¹⁷ Australia's dependence on this region for its commerce with most of the nations, its strong relations with both

India and Japan at various economic, diplomatic and military levels, and the over arching desire for securing mutual strategic security interests, the Indo-Pacific assumes greater importance in their policy plan architecture.¹⁸

The US being as upper power and with its historical dominance in the area, obviously has the largest stakes in the region; not only in terms of economic and military dominance but also as a leading power in ensuring sovereignty, safety, peace of smaller nations and free flow of trade and commerce in the area. The fast-expanding influence of China in the region through its coercive economic and military might, to stake claims over sovereign land of large number of nations in the region, has led the US and its allies in the Indo-Pacific to increase their presence and provide a balance of power in this new area of power struggle. The US is committed to ensuring regional

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16. David Brewster, "Australia's view of the Indo-Pacific Concept", India Foundation, at <https://indiafoundation.in/articles-and-commentaries/australias-view-of-the-indo-pacific-concept/>. Accessed on August 23, 2021.
 17. David Scott, "Australia's Embrace of the 'Indo-Pacific': New Term, New Region, New Strategy?" *International Relations of the Asia-Pacific*, March 24, 2013, p. 6, at <https://theasiadialogue.com/wp-content/uploads/2018/01/australia-indo-pacific.pdf>. Accessed on August 23, 2021.
 18. Sean Andrews and Alastair Cooper, "An Australian Vision of the Indo-Pacific—Through a Strategic and Maritime Lens", *Sea power R&A*, Issue 1, 2019, p. 3, at https://www.navy.gov.au/sites/default/files/documents/Australian_vision_of_Indo-Pacific_Through_Strategic_and_Maritime_Lens_0.pdf. Accessed on August 23, 2021.

freedom, security and stability. This includes not only ensuring free access to common shared domains, but also to prevent China from dominating and establishing an exclusive sphere of influence. The US is committed to protecting and safeguarding the interest of its allies and strategic partners.¹⁹ In order to address the concerns about Chinese coercive and expansionist activities in the SCS and beyond, the United States has extended its support to Malaysia, the Philippines and Vietnam; the three nations have major maritime disputes with China. The support is also extended to Indonesia and Singapore, as Indonesia is countering China's claims near the Natuna Islands and Singapore is pushing for free access to the SCS and freedom of navigation.²⁰ In addition to its own economic and military might, the US would use the might of its allies like Australia, Japan, UK, France, ROK and India as its most important strategic partners in the region.

The expansionist moves by China and counterbalance by strategic partners of the Indo-Pacific, viz. the US, Australia, India and Japan, has drawn the attention of allies, partners of either side as well as the nations within the affected zone of influence in this region. While the UK, France and Germany have clearly indicated their diplomatic and military support to the US, countries like New Zealand are displaying inclination, though not yet committed. Smaller nations within the region like ROK, Malaysia, Indonesia, etc., are watching the developing situation as fence sitters. The pace of activities from both sides to claim dominance and push their strategic vision has, as always, led to large induction of military might into the region.

FORCE INDUCTION AND MILITARY BALANCE IN INDO-PACIFIC

As of 2021, the heads of state of all four member nations of Quad have stepped up their efforts to work on shared strategy on concerns about China's increasing assertiveness in the region and are more aligned to formulate a constructive plan of economic and military cooperation.²¹ The initial plan

19. Study Review, "Regional Responses to US-China Competition in Indo-Pacific", Rand.org, p. 26, at file:///C:/Users/savin/Downloads/RAND_RR4412%20(1).pdf. Accessed on August 23, 2021.

20. Ibid., p. 28.

21. Smith, n. 6.

of maritime cooperation among the Quad members, which began after the Boxer tsunami of 2004, has now widened its scope to cover a broader range of issues that include concerns in the field of security, economic growth and health. These concerns have mostly emerged in the light of China's expansion plans in SCS and post-pandemic economic slowdown faced by most of the nations across the globe.

The vision paper of the People's Republic of China (PRC) on "China's National Defense in the New Era", published in July 2019, clearly indicates the intent of China in establishing its supremacy in SCS. In the vision document, China has, without any ambiguity, defined its objective that would safeguard its maritime rights, overseas interests as well as oppose and contain "Taiwan independence"²² The vision document clearly lays down the responsibility of PLA towards the development of overseas logistical facilities, capability enhancement in achieving desired military strength to undertake unrestricted operations and ensure strategic security of SLOCs. It also emphasises the need for retaining control of island territories not only in the SCS, but also in areas of interest in the Indian and Pacific Oceans.

The struggle for control within the IOR is experiencing a notable change, as nations from outside the region have begun to establish a permanent presence in the zone. In the last decade, China has sharply escalated its maritime presence in the Indian Ocean, with activities like hydrographic surveys in the Exclusive Economic Zones (EEZ), increased submarine deployment, underwater drones and creation of establishment in Djibouti for overseas military activities. China, in early 2020, surged forward to meet the objectives of its vision document 2019, having built strong military capability in all domains, including cyber, space and maritime since 2013, while the entire world was gripped by the unprecedented spread of the Corona pandemic. Despite certain setbacks during the pandemic period, China continued with increasing its area of influence in the Indo-Pacific region by constantly increasing its military presence.

22. "China's National Defense in the New Era", The State Council Information Office of the People's Republic of China, July 2019, pp. 6-7, at http://www.xinhuanet.com/english/2019-07/24/c_138253389.htm. Accessed on August 25, 2021.

THE PLAN AND THE PLAAF

The People's Liberation Army Navy (PLAN) and People's Liberation Army Air Force (PLAAF) are the arms of the PLA that are being deployed across the SCS and parts of the Indo-Pacific Maritime Zone (IPMZ) to assert and claim dominance in the region. To secure its claim on worldwide trade and create opportunity to exploit vital resources, Beijing is quickly building its military's offensive and protective powers within the Indo-Pacific environment and extending its blue water maritime capability. China is resolute to increase its fleet strength of aircraft carriers, nuclear-powered submarines, surface combat ships, Medium-Range Ballistic Missiles (MRBM), Intercontinental Ballistic Missiles (ICBM), Ballistic Missile Launch Submarines (SSBNs) and multi-role combat aircraft to strengthen its comprehensive military power in the IPMZ.²³ China's move towards the militarisation of natural resource-rich SCS as well as artificial islands in the zone, creation of air and naval bases in and around the Spratly Islands and Woody Island, is creating a serious existential security concern for the neighbouring countries in the region. In 2016 in the SCS, the PLAN had conducted major deployments. These included maritime forces moving to areas in Western Pacific and in the eastern Indian Ocean in the month of May, while a naval interdiction training was conducted by the task force at the same time. Towards the end of year, in December, *Liaoning*, the first PLAN aircraft carrier, conducted a naval drill of military manoeuvres in the region. To augment naval warfare capability, *Shandong*, an indigenously built aircraft carrier, was commissioned by China. Further, the first nuclear-powered aircraft carrier is likely to be ready for launch by the end of 2025. It would not only boost the offensive maritime power of PLAN for blue water operations, but also strengthen the naval defensive capability. China has significantly increased its submarine fleet for offensive patrolling and security of its SLOCs. In the current situation, PLAN has deployed multiple types of submarines that include SSNs of Shang I-class, attack submarines of Shang II-class

23. Thangavel K Balasubramanian and Ashok Kumar Murugesan, "China's Rising Missile and Naval Capability on Indo-Pacific", p. 2, at https://media.defense.gov/2020/Jun/08/2002312001/-1/-1/1/DO_BALASUBRAMANIAM.PDF. Accessed on August 25, 2021.

and Jin-class SSBNs. The SSBN can carry 12 JL-2 nuclear-armed SLBMs to target enemy areas up to a range of more than 7,000 km. Such a massive striking range is a direct threat to any location in Australia, India and certain areas in Alaska.²⁴ A large number of destroyers, frigates and corvette as well as surface combatants combine to form the cohesive Carrier Battle Group (CBG) to undertake offensive

patrolling and protect the aircraft carriers. To further add punch to its might, China launched the stealth guided Type-055 missile destroyers in the Indo-Pacific region, to demonstrate its oceanic superiority. T-055 is the largest surface combat vessel on Beijing's inventory that is designed for multi-mission roles, including anti-submarine warfare and area air defence. Presently, there are four such destroyers operating in the SCS area. These destroyers have vertical launch, canister-based, missile carriage systems that can destroy targets up to a range of more than 1,500 km. These destroyers have combination of different missiles like with ranges varying from 500 km to almost 2,000 km. The combination of weapons on board the destroyer include ASCMs HHQ-9 SAMs and LACMs.²⁵

The PLAAF has also dedicated a large portion of its strength of about 1600 combat-worthy aircraft that include primarily Su-27s and Su-30s with few J-11s. In the near future Su-35s are also likely to dominate the skies over the SCS. The PLAAF continues to remain the largest single nation air force in the IPMZ. It has a robust combination of variety of long range, Air Superiority Fighters (ASFs) with shore-based mobile lethal AD systems like the S-400, S-300 PMU and HQ-9, with ranges up to 400 km. The AD systems on board carrier and destroyers are also being upgraded rapidly. A major

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24. Ibid., p. 5.

25. Ibid., p. 10.

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limitation in terms of available Flight Refuelling Aircrafts (FRAs) continues to restrict the strategic reach of these long-range ASFs beyond the SCS region. With an envious record rate of modernisation and upgrade of about 70 aircraft/year, the PLAAF has enhanced its fleet of fourth-generation

fighters to almost 30 per cent of the combat-worthy fighter force.²⁶ The J-11 of China are effectively being utilised to defend airspace against the F-15s or F/A-18s. The carrier based 4.5 Generation fighter JF-15 of PLAN, would augment the desired capability level to achieve China's naval dominance in the region. The fleet of bombers of H-6 class, with carriage capability of long range, lethal DH-10 cruise missiles, add might to the PLAAF capability. These bombers have a combat radius of 1,800 km. The PLAAF is working on integrated air and space capabilities and coordinated offensive and defensive operations in conjunction with the Strategic Support Force (SSF). The newer fifth-generation fighter aircraft, the J-20, and other fourth-generation-plus aircraft are fast replacing the ageing J-7s. As far as the stealth fighters are considered, the J-20 and J-31 programme seems to be forging ahead as per schedule. The J-20 aircraft, once operational, would meet the PLAAF requirements of a high speed stealth interceptor against AWACS and other High Value Air Assets (HVAAs) of USAF. Though J-31 is not expected to enter service until 2035, the PLAAF appears to be focussed on early roll out of this highly capable platform that may prove to be a game changer.

However, a critical limitation of Chinese aircraft is a lack of much-needed engine capability for long hours of continuous operations. This limitation, coupled with limited aircraft carriers and shortage of FRAs, poses a serious challenge to PLAAF and PLAN towards achieving their dominance of skies against technologically advanced, carrier and shore-based fighter jets of

26. Daniel Urchick, "A 2016 Assessment of the Growth in PLAAF Capabilities", *Small Wars Journal*, July 26, 2016, at <https://smallwarsjournal.com/jrnl/art/a-2016-assessment-of-the-growth-in-plaaf-capabilities>. Accessed on August 27, 2021.

the US and allied forces. Limited number of operational heavy-lift aircraft, like the Il-76 and Y-20, pose another challenge for the PLAAF to conduct strategic air operations. It is estimated that PLA's strategic airlift requirement in the entire IPMZ could be as high as 130 to 150 heavy lift aircrafts. While Y-20 with 60 tonnes lift capability is yet to be fully operationalised, with only about 20 Il-76 of just 40 tonnes lift capability each, PLAAF will be in no position to support the massive airlift requirements during operations against USAF. Even with inclusion of medium-lift aircraft like the Y-9, with barely 22 tonnes capacity and Y-8, which has even less, China's overall airlift capability is estimated to be is grossly inadequate. The shortage of FRA, as highlighted earlier, is likely to complicate the issue further, as production of Y-20 would have to be carefully distributed between the heavy lift requirement and FRA. Such a crucial asset would further delay the time lines of meeting the minimum numbers, both for FRA as well as heavy lift capability. The H-6 family of strategic bombers, even with the recent upgrade of avionics and weapon carriage modernisation to H-6K, are no match to the B-52 type strategic bomber on the US inventory, which carry almost six times the payload of H-6K and have the most modern avionics integrated with various defensive systems.²⁷

US FORCES

Indo-Pacific region is looked after and dominated by United States Indo-Pacific Command (USINDOPACOM) of the United States Armed Forces. It is the largest US strategic command with almost 2,000 aircraft, three CBGs, 200 plus ships, submarines and more than 300,000 combatants and defence civilians, operating within its area of responsibility at any given time. Pacific Air Forces (PACAF), with a large number of fighters, bombers and HVAAs, constitute a vital portion of the command. Japan and the ROK, as the major allies, have the largest concentration of the US forces in the region. With an unmatched fleet of about 12 operational aircraft carriers, nearly 300 battle worthy destroyers, frigate class with compliment of huge

27. Ibid.

tankers, amphibious ships and support ships, the US Navy can always boast itself to be a global strategic projection force. The US Navy also has about 75 submarines that include more than 10 SSBNs. These SSBNs are deployed at vital locations to ensure effective nuclear deterrence. Most of the ships of the US Navy are designed as multi-mission capable vessels that can undertake simultaneous operations of different types except that of strategic nuclear deterrence.

The different types of ships on the inventory include attack submarines, destroyers, frigates with support crafts like mine sweepers and amphibious ships. The US Navy has state-of-the-art logistics supply ships, that undertake continuous replenishment operations to ensure unhindered operation by ships of different types.²⁸ Each of the CBG of the US Navy is an indomitable force package afloat, consisting of an aircraft carrier with more than 80 aircraft, including fighters and helicopters, different types of 30 plus ships and submarines. Almost all carriers and submarines are nuclear powered that not only provides long endurance but also higher power for acceleration and sustained manoeuvring afloat. The large force deployment of US Navy and USAF in Indo-Pacific is assessed to include 3 CVNs with 2 more ready for deployment, with a large number of offensive capability aircraft such as the F-25, FA-18, E-2D and P-8A. It has a large number of helicopters and Unmanned Aerial Vehicles (UAVs) deployed in the region.²⁹

PACAF has 334 fixed wing aircraft that include mainly fighters, heavy lift aircrafts, AWACS and air-to-air refuellers (AAR). These are mainly F-15C/D Eagle, F-16CJ/DJ Fighting Falcons, E-3B/C Sentry, HH-60G Pave Hawk, and KC-135R Stratotanker; C-12J Huron, C-130J Hercules, as well as E-8C. J-DTARS. The USAF's inventory in PACAF also includes the F-35, F-22A Raptor, C-17 Globemaster III, C-130 among many others. The B-52 bombers with long-range and precision weapon delivery capability would continue to play the dominant role in the skies over the Indo-Pacific.

28. Defense Primer: Naval Forces, In Focus, Congressional Research Service, at <https://sgp.fas.org/crs/natsec/IF10486.pdf>. Accessed on August 27, 2021.

29. Mark F. Cancian, "U.S. Military Forces in FY 2020: Navy", CSIS, October 3, 2019, at <https://www.csis.org/analysis/us-military-forces-fy-2020-navy>. Accessed on August 28, 2021.

JAPAN

The Japan Maritime Self-Defense Force (JMSDF), even though a smaller force as compared to China and the US, is still a reasonable size marine force that includes more than 150 ships, about 300 plus aircraft with almost 45,000 combatants. The Japan Air Self-Defense Force (JASDF) has

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around 50,000 personnel, and operates approximately 750 aircraft, including approximately 350 fighters with about more than 200 of them being fourth-generation. Japan has 20 active air bases, 11 marine operation bases and more than 10 naval aviation bases, distributed across the geographic stretch of the country. The US has stationed a large portion of its forces at these bases in Japan. The major resources deployed by the US include USS aircraft carrier Ronald Reagan, which is one of the most potent carriers. The US has also forward deployed approximately 40,000 military personnel along with its Seventh Fleet, US Marine commandos, USAF assets including F-35 and certain Special Operations units in Japan.³⁰ An area covering approximately 300 miles stretch North to South, between mainland Japan and Taiwan, has been planned to be covered by formidable missile launchers, spread across the zone. The defended area includes the Senkaku Islands, and the defence shield so created would be able to target any naval or air threat developing in the zone. In a joint surveillance network operation to detect, locate and track Chinese ships and submarines as they leave port, Japan has not only deployed its submarines along with the US, but also is rapidly expanding its fleet to about 22 submarines. This integrated undersea surveillance grid has a vast network of sensors that maintain a close watch on all activities across Yellow and East China Seas. Approximately 80 fixed-wing aircraft and about similar number of helicopters, operating from fixed bases on the Ryukyus

30. "Indo-Pacific Strategy Report", Department of Defence, June 1, 2019, at <https://media.defense.gov/2019/Jul/01/2002152311/-1/-1/1/DEPARTMENT-OF-DEFENSE-INDO-PACIFIC-STRATEGY-REPORT-2019.PDF>. Accessed on August 29, 2021.

The Indian Navy presently has a single aircraft carrier with a range exceeding 7,000 nm, along with 137 ships and submarines and 291 aircraft. The aircraft carrier is capable of undertaking simultaneous operations by a large number of fighters of MiG 29K/Sea Harrier class, as well as many helicopters like Chetak, Sea King and Kamov 31.

or through deck operations from surface ships, pose a serious threat to the PLAN submarines. Japan has robust mine warfare capabilities and can deploy a large number of mines in a very short span that can target specific vessels in the sea.³¹ JASDF operates the F-15J (155), Mitsubishi F-2 (62) and F-35 (42) fighter aircraft. They have 10 FRAs and a sizable fleet of AEW&C aircraft. Japan has created a very potent A2/AD capability by the skilful deployment of AD Fighters,

KC-46 FRAs and HVAAAs like Advanced Hawkeye and E-767 AWACS.³²

INDIA

The Indian Navy presently has a single aircraft carrier with a range exceeding 7,000 nm, along with 137 ships and submarines and 291 aircraft. The aircraft carrier is capable of undertaking simultaneous operations by a large number of fighters of MiG 29K/Sea Harrier class, as well as many helicopters like Chetak, Sea King and Kamov 31. Indian Navy has a reasonable strength of about 20 submarines with only one of them being nuclear-powered. A strong fleet of destroyers and frigates is also being maintained by Indian Navy. The BrahMos and Klub class anti-ship cruise missiles are the mainstay of land-attack capability of offensive operations by Indian Navy. The induction of P-8I multi-mission maritime patrol aircraft and carrier-based MiG 29-K fighters significantly enhanced the capabilities of Indian Navy many times.

31. Michael Beckley, "The Emerging Military Balance in East Asia: How China's Neighbors Can Check Chinese Naval Expansion", November 1, 2017, at <https://direct.mit.edu/isec/article/42/2/78/12177/The-Emerging-Military-Balance-in-East-Asia-How>. Accessed on August 29, 2021.

32. Stephen Kuper, "Japan Steps up Rollout of A2/AD and Amphibious Brigade in Southern Island Chain", Defence Connect, September 18, 2019, at <https://www.defenceconnect.com.au/land-amphibious/4792-japan-steps-up-rollout-of-a2-ad-and-amphibious-brigade-in-southern-island-chain>. Accessed on August 29, 2021.

Both Heron and Searcher class UAVs have boosted the search and strike capabilities.³³

The Indian Air Force (IAF) is formidable and a highly capable force with more than 1,800 aircraft, state-of-the-art technology weapons and onboard systems supported by a secure robust AD network. The IAF has a large inventory of fighters, that include 4th generation Rafale and Su-30MKI ASFs, MiG-29UPG, Mirage 2000, indigenous LCA, Jaguar and MiG-21 Bison. HVAAAs like AWACs, AEW&C, IL-78 FRAs with heavy airlift aircraft including C-17 Globemaster, IL-76 and Chinook helicopters provide the IAF with an unmatched capability in the IOR. The C-130Js for Special Operations with Apache attack helicopters can prove to be the most lethal combination in the region. A large variety of helicopters like Mi-17, Mi-17 1V, Mi-17V 5, Light Combat Helicopters (LCH) and Rudra are in service with not only the IAF, but also with the Indian Navy and Indian Army as well. Heron, Searcher UAVs with Unmanned Combat Aerial Vehicle (UCAV) Harpy give an edge to IAF for search and strike capability.

AUSTRALIA

The Royal Australian Navy has a fleet of 46 ships comprising mostly patrol boats with limited number of destroyers and frigates.³⁴ The Royal Australian Air Force (RAAF) operates the majority of the military fixed wing aircraft, although both the Australian Army and Royal Australian Navy also operate aircraft in various roles. The RAAF has 259 aircraft, of which 110 are combat aircraft. Their main combat aircraft are 69 Boeing F/A-18, 24 F/A-18E/F (multirole) and 37 F-35 Lightning II. They have 18 dedicated Electronic Warfare aircraft, 14 Boeing P-8 Maritime patrol aircraft and seven Airbus A330 MRTT air refuellers.

33. Hemanth Kumar, "India vs China: A Comparison of the Indian and Chinese (PLA) Navies", *Naval Technology*, September 9, 2020, at https://www.naval-technology.com/features/india-vs-china-indian-and-chinese-pla-navies-compared/?utm_source=Army%20Technology&utm_medium=website&utm_campaign=Must%20Read&utm_content=Image. Accessed on August 29 2021.

34. Australian Navy, at <https://www.navy.gov.au/fleet/ships-boats-craft/current-ships>. Accessed on August 29, 2021.

ROK

The ROK Navy has about 70,000 active duty personnel including 29,000 marines, 150 ships and 70 aircraft. It has about 16 submarines with no SSBN. By 2023, ROKN is likely to have its own aircraft carrier. The ROK Air Force has more than 400 fighter aircraft including F-5, F-15, F-16 and F-16 along with AEW&C and AAR aircrafts. It also has about 30 transport aircraft and about 60 helicopters. The ROK has acquired a large number of US aircraft, missiles and other combat equipment from USA. F-16s, F-35A Joint Strike Fighter and Apache attack helicopters form the mainstay of ROK air strike capability. ROK also hosts about 28,000 personnel from various operational units of US marines, US Army and a contingent of USAF. Sufficient number of technologically advanced weapons with support equipment have also been pre-positioned by the US Forces. ROK is in the process of procuring P-8, advanced munitions, upgraded PAC-3 missiles with additional F-16s. These systems are compatible with the existing ones, enhancing the interoperability with the US Forces.³⁵

EMERGING NEW ALLIANCES

In March 2020, while the members of Quad countries organised a virtual meeting to discuss COVID-19 and the co-operation issues to form a global strategy, South Korea, Vietnam and New Zealand were also invited to be part of this virtual conference. The joint dialogue with these three countries, viz. Vietnam (Chair of ASEAN then), New Zealand (Five-Eye partner) and ROK as one of closest regional allies of the US, left little to guess that a Quad plus alliance was being formally considered. Even though there was no agenda of any military alliance in the Quad plus, this new alliance was observed to be another step towards enhancing the existing military co-operation in the region.

On September 15, 2021, AUKUS, a trilateral security pact between Australia, the UK and the US, was formally announced for the Indo-Pacific region. Under the pact, both the US and the UK committed to assist Australia

35. "Indo-Pacific Strategy Report", n. 30.

to acquire nuclear-powered submarines. Though this arrangement led to a diplomatic challenge with France, the AUKUS continued to strategise its military reach in Indo-Pacific. With such strategic alliances emerging on the world map, it soon became a trend and within couple of months many new bi-lateral, tri-lateral and multilateral alliances developed with focus on the Indo-Pacific region. Such new alliances included Australia, Japan and India (AJI), Japan-America-India (JAI), Russia-India-China (RIC) trilaterals and Regional Comprehensive Economic Partnership (RCEP) of six ASEAN and five non-ASEAN nations. Though most of these alliances are for preserving the autonomy and co-operation of trade and economy in the Indo-Pacific, the military focus has not yet been observed except for AUKUS. However, in case the alliance countries decide to engage in military co-operation in the future, the reassessment of "Balance of Power" would have to be undertaken.

NEW THEATRE OF POWER STRUGGLE

In the recent years, Indo-Pacific region has become the focal area of emerging global power struggle. The involvement of major nations like the United States, China, India, Australia and Japan has turned the region into a closely contested space for dominance. No other region across the globe seems to be more impacted than the Indo-Pacific, which has drawn the attention of world powers. In today's international affairs, the geopolitical significance and economic impact of the Indo-Pacific region cannot be overstated. It had initially assumed the centre stage of dynamic regional construct owing to the fact that region's primary actors were competing and pushing forward their security objectives. However, with the entry of international players with their strategic and geo-economic interests, the regional struggle for dominance has now turned into a global arena. There is a growing relevance of the Indian Ocean as a nerve centre of geopolitical and geo-economic activities. The region's importance is enhanced by the fact that it is the world's busiest and most strategically located crucial commerce corridor, transporting more than half of global oil exports and a major

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percentage of cargo volume. China and India's tussle to stake claims over the rising importance of the marine sector for trade and connectivity has been increasingly contentious and even savage in recent years. Though the US was acting as a self-appointed vigilant watchdog till recently, it has now surged forward to take control through re-igniting Quad with much broader mandate to further its strategic objectives.

India and most of the sovereign nations of South East Asia have grown increasingly anxious by watching the rapid military expansion of China to establish its hold over SCS by progressively adding new military bases in and around the region. The pace of military expansion by China and its growing influence in IOR, has forced India to re-assess and reorganise its maritime strategy to retain its regional autonomy and control over IOR.³⁶ Even smaller countries like Vietnam and the Philippines, which lack the military or diplomatic might to openly oppose these expansionist designs of China, are increasingly concerned by its growing military power and consolidation in the region, as they see this expansion as a direct threat to their own maritime interests. Not only India and such regional smaller countries, but also the countries of Pacific maritime zone, like Japan, Indonesia, Australia and the US are equally perturbed by China's military expansion. Thus, in order to retain the freedom of open trade and commerce throughout the Indo-Pacific, most of these countries have now come together to counter the ill designs of China.

36. Netajee Abhinandan, "The Changing Power-Relations in the Indo-Pacific: Decoding New Delhi's Strategic Outlook", *Focus Asia*, February 2021, at <https://www.isdp.eu/content/uploads/2021/01/The-Changing-Power-Relations-in-the-Indo-Pacific-FA-01.02.21.pdf>. Accessed on August 29, 2021.

THE BALANCE RESTS ON AIR POWER

The historical development of military power by each nation plays a crucial role in its ascendancy on the global map as a reckonable force. China, historically had been a land-based military power with minimal naval forces on the Eastern province. However, with changing times, China has not only developed its military might in the domains of air and sea, but also rapidly altered its vision document to expand its prowess in cyber, space and nuclear domains. The US, on the other hand, owing to its geographical location

and technological and economic superiority, has developed its military force in nearly every sphere and has long maintained its standing as a superpower. Though China has strengthened its economy and its cyber capabilities over the last few decades, it has yet to equal the military might of the US in air, sea, space and nuclear domains.

In the current context of China asserting itself as a leading force in the Indo-Pacific region, air power will be vital in the power struggle between China and the combined might of the Quad countries and US allies. The US has maintained, and will continue to maintain, an overwhelming superiority in airpower in this region as well. The balance of air power in terms of numbers and quality is significantly in favour of the Quad countries vis-à-vis China. There are a large number of factors that will determine the tilt of the balance of Air power supremacy towards the Quad alliance and will serve as the decisive factor in this Indo-Pacific power struggle.

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Disparity in Numbers

A huge disparity exists between the US and China, in terms of the number of fighters, heavy lift, AWACS, AAR aircraft as well as heptrs and UAVs

along with reconnaissance aircraft. The disparity is not only in terms of shore-based assets, but also in terms of carrier-based aircraft as serving as the operating surface in the ocean. The limited number of ship-based radars would pose an additional challenge for the operations by China. This numerical disparity also exists in terms of precision weapons as well as the number of 4th and 5th generation platforms.

Technological Disparity

A large number of aircraft and other airborne systems with PLAAF are of older vintage compared to that of USAF or PACAF. The disparity of technology is not in terms of aircraft alone but exists in all associated systems, including radars, air guided munitions and secure communication systems. Though China has very advanced cyber capabilities, it may be able to nullify the technical advantage of the US to some extent.

Airlift Capability

China has a very limited airlift capability compared to the USAF, whether fixed wing or helicopters. Lack of such capability, which acts as a force multiplier, can always prove critical in military engagements.

Long-Range Reconnaissance

In order to win the battle over sea, aerial reconnaissance plays a vital role in terms of providing timely and accurate early warning. The present reconnaissance capability of the PLAAF is limited not only in terms of range, but also in endurance and reach. The US, on the other hand, possesses a very high degree of capability in this domain.

Air Defence of Carrier Battle Group (CBG)

A CBG at sea is a highly vulnerable target and needs protection not only from surface navy, but also from submarines (under water) and air threat. Since the carrier aircraft of PLAN are limited in number and have a smaller

number of on board AD fighters as compared to the US Navy's, their CBG would be far more vulnerable.

Precision Weapons

The PLAN and PLAAF have very limited capabilities for Precision Guided Munitions (PGMs) as well as delivery platforms. Almost all aircraft in the US Navy carrier-based fleet have this capability. Such a disparity would put PLAN at a disadvantage vis-à-vis the US Navy.

CONCLUSION

Indo-Pacific has emerged as the new zone of conflict on the world map. China is focussed on securing regional dominance through the development of a networked, precision-strike capability. Thus, while China is exerting its dominance over key maritime sectors of IPMZ, Southeast Asian countries, Japan, India, Australia and the US are determined to ensure an inclusive, rule-based international order in the region that allows a level playing field for equal, free and open trade opportunities for all the stakeholders.

The pursuit of economic progress is likely to cause a power struggle between opposing ideologies. The increasing level of military presence of both the US and its allies, and China, is bound to lead to skirmishes at sea. Even with disproportionate naval assets, the US and its allies may struggle to establish clear supremacy of Quad. Thus, many new alliances have been formed, like Quad Plus, Australia-UK-US (AUKUS), Australia-Japan-India (AJI) and Japan-America-India (JAI), ensure the establishment of rule-based trade and economic activities for every country in the Indo-Pacific region. Though the majority of the alliances, with the exception of AUKUS, entail a non-military strategic collaboration, the presence of military strength becomes an unavoidable prerequisite to oppose China's ambitions for power supremacy.

The stability in the region can be ensured by maintaining the strategic military balance that would continue to be one of the critical tools of diplomacy.

China, even though has a sizable force of PLAAF, most of its aircraft, precision weapons, AAR and strategic lift capability, Air Defence and long-range strike capabilities are technologically and numerically inferior to the joint air power capabilities of alliance forces in the region.

Though maritime forces would remain the primary focus of force balance, the air power asymmetry would prove to be the “winning factor” in establishing stable international order in the region. The quantum jump in technology and strategic employment of air power remains the key to this force balance. China, even though has a sizable force of PLAAF, most of its aircraft, precision weapons, AAR and

strategic lift capability, Air Defence and long-range strike capabilities are technologically and numerically inferior to the joint air power capabilities of alliance forces in the region. Seamless AD coverage of the open vast airspace over the Indo-Pacific region would be a challenge for any singular or alliance force and this limitation would permit almost unhindered air operations over the region. Thus, in the absence of any formidable AD setup, most of the maritime forces would be at high risk against any air operations. Air power would therefore continue to play a decisive role in the equation of balance of power over the Indo-Pacific region. The balance of air power in both, quantity and quality, is significantly in favour of the Quad countries vis-à-vis China. However, in order to retain the advantage, all four nations must continue to strive for much higher levels of co-ordination to achieve seamless integration of their technologies with the goal of ensuring a robust offence–defence balance of power in the region to ensure peaceful trade and commerce activities within the IPMZ.