

# THE AIRCRAFT CARRIER CONNUNDRUM AND INDIA'S DILEMMA

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## ABSTRACT

*For all its perceived strengths and virtues, the aircraft-carrier has never failed to evoke controversy and arouse passions. Just as the loyalists cite its size, reach and mobility as the carrier's strengths, critics focus on its expense, size and vulnerability, to run it down. Over the years, a furious 'carrier debate' has raged in many countries, encompassing, in its ambit, the armed forces and politicians as well as the media and academia. No such informed debate has taken place in India, and in the absence of a national security strategy, decision-makers seem to be groping for an answer. Air forces, clinging to their belief in the 'indivisibility of air power' see the carrier as a threat to their 'core competencies.' In this essay, the author attempts to address both sides of the carrier debate, and, in the face of an imminent Chinese surge into the Indian Ocean, urges a case for retaining continued faith in the carrier.*

## Introduction

Today there are less than two dozen aircraft-carriers in the world<sup>1</sup>. The huge costs involved in constructing, operating and maintaining carriers have confined this citadel of sea power to a select club of countries which includes, China, France, India, Italy, Russia, Spain, Thailand, UK and USA. It is, however, significant that the number of carrier operating navies has risen from just four at the end of WW II to nine today. While China has yet to disclose the full contours of its ambitious carrier building programme, Japan, a long-time aspirant, is poised to become its 10<sup>th</sup> member, with Turkey and South Korea waiting in the wings.

Despite growing numbers, the aircraft-carrier continues to evoke strong criticism that it is an expensive anachronism, which offers little, if any, advantage over lower-cost alternatives. The ongoing debate remains largely centered on enhanced battle-space transparency and key threats like, improved submarine capabilities, better anti-ship missiles and, above all, the hazard posed by shore-based, ballistic-missiles claimed to be 'carrier-killers' by China.

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<sup>1</sup> Wikipedia. List of Aircraft Carriers. [https://en.wikipedia.org/wiki/List\\_of\\_aircraft\\_carriers#Argentina](https://en.wikipedia.org/wiki/List_of_aircraft_carriers#Argentina). Accessed on 20 June 2021.

In India, national security issues of this nature rank fourth - after politics, cricket and Bollywood – in terms of the interest that they generate amongst the cognoscenti as well as general public. Given such a lack of awareness/comprehension, little informed discussion has taken place, on the merits, necessity and affordability of the aircraft-carrier, in India's Parliament, media or academia. However, within the armed forces, this topic, with its budgetary and operational implications, remains the subject of an ongoing, if muted, debate, which has remained inconclusive.

It would, therefore, be fitting for an institution like the NDC, to generate an enlightened debate, that addresses the continuing relevance, roles, missions and viability of aircraft-carriers in India's future strategic environment. I hope that this chapter will be a catalyst for such a process. Before focusing on carriers, it is necessary to highlight the significance of aviation, *per se*, in naval operations.

### Aviation in Naval Operations

It is said that when the US is faced with an international crisis, the first question the President asks the Chairman Joint Chiefs of Staff is: "Where are the carriers?" This may be an apocryphal tale, but the fact remains that the Pentagon and the State Department consider aircraft carriers as "four-and-a-half acres of sovereign territory", available, at short notice, for leveraging state policy. It is the same with other nations, which consider carriers as potent mobile bases which can be positioned off any shore, worldwide, in a matter of hours or days, not just to project naval air-power – for deterrence, coercion or compellence - but also for diplomatic-messaging, conveying reassurance to friends or rendering humanitarian assistance.

The single most important factor that distinguishes naval air power from air forces is the fact that navies consider aircraft, an extension of the fleet's weapons and sensors. Air-power is considered an integral component of the maritime operational matrix, and is expected to be deployable within minutes or hours by the naval command-chain. It cannot be just a transient 'helping hand' that has to be requisitioned externally, using complex procedures. The utility of tactical air-power (i.e., integral aircraft and helicopters), to the Fleet, resides in three key attributes:

- The ability to respond, with minimum delay, in any geographic location, on a 24x7 basis.
- The ability to reconnoitre and detect targets much beyond the ship's own sensor range;

- The ability to deliver ordnance, while the ship remains outside the enemy's weapon danger zone.

As far as aircraft-carriers are concerned, there is no umbrella definition, and versions of this ship can vary from 100,000-ton American behemoths – which require nuclear propulsion, and carry upward of 80 aircraft and helicopters - to Thailand's 11,000-ton 'VSTOL-carrier.' Other navies, own mid-size carriers of between 40,000-70,000 tons, which can be driven by non-nuclear propulsion, and carry a mix of 30-40 strike-fighters and ASW helicopters.

The arrival of the STO/VL or 'B' version of the F-35 fighter, has spawned a new class of 'aviation capable' ships. These are the amphibious assault ships, originally classified as landing platforms dock/helicopter (LPD/LHD in US parlance), now being adapted for operation of fixed-wing jets, with or without a ski-jump.<sup>2</sup>

### The Carrier Conundrum

The traditional justification for aircraft-carriers, that they provide tactical airpower, independent of land bases, where and when required by navies, is being increasingly questioned; by air forces, especially where the 'budgetary cake' is diminishing in size. The emergence of China's 'anti-access and area-denial' (A2AD) strategy seemed to further bolster the case against carriers, and a debate about the justification for building any more of these leviathans continues in many countries.

The essence of the argument against carriers has traditionally been based on the claim that since land-based air forces can perform all its functions, why expend scarce resources on this platform? However, some recent developments, highlighted below, should cause a re-think amongst those, sceptical about the continuing viability of carriers.

- Latest satellite pictures, which show rapid progress of China's third aircraft-carrier, dubbed Type-003, being built in Shanghai's Jiangnan Shipyard, are interpreted as a clear sign that a new class of PLA Navy carriers

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<sup>2</sup> Larter, David B. *US Navy upgrades more ships for the F-35 as the future of carriers remains in flux.* Defence News.  
<https://www.defensenews.com/naval/2020/06/01/us-navy-upgrades-more-ships-for-the-f-35-as-the-future-of-carriers-remains-in-flux/>.

is on the way. Equipped with electro-magnetic catapults, J-15/J-31 fighters and the KJ-600 fixed-wing airborne early warning (AEW) aircraft, these ships<sup>3</sup> would provide a significant boost to China's maritime power, with consequences for the Indo-Pacific balance of power.

- Britain's two brand-new, 65,000-ton carriers built, in the teeth of opposition, at a cost of 8.5 billion USD, made their operational debut in June 2021. While one is operating in UK waters, the other is leading a multi-national strike-group on a 7-month deployment, half-way across the world, to the Indo-Pacific. Queried about their role, the Royal Navy's Fleet Commander declared that the two carriers would undertake missions such as: "strategic messaging, power projection, naval diplomacy and trade promotion." This is in consonance with the ruling party's vision of a 'Global Britain,' that includes a 'military footprint' in the Indo-Pacific.<sup>4</sup>
- The, much vaunted, A2AD threat, from China as well as from Russia, having been subjected to critical re-appraisal by US and NATO analysts, it is, now, believed that not only has the hazard been exaggerated, but that viable counter-measures have become available to mitigate risks. In fact, use of the term 'A2AD' has been discontinued, in US Navy documents and discourse, on the grounds that it "cedes too much ground to the adversary without adequate evidence"<sup>5</sup>.

### The Indian Context

As far as India is concerned, its sole aircraft-carrier, INS *Vikramaditya*, is likely to be joined by the indigenously designed and built IAC-1 in 2022/23. According to India's 2015 Maritime Strategy, the Indian Navy (IN), in order to discharge its tasks of sea-control/sea denial and power-projection, is committed to maintain "two carrier task forces, each comprising of one or more carrier battle groups."<sup>6</sup> The requirement to field two carriers implies a force of at least 3 such ships, to allow for maintenance

<sup>3</sup> Funaiole, Mathew P. *China's Third Aircraft Carrier Takes Shape*. Centre for Strategic & International Studies, 15 June 2021. <https://www.csis.org/analysis/chinas-third-aircraft-carrier-takes-shape>. Accessed 24 June 2021.

<sup>4</sup> Storey, Ian. *Can the UK Achieve its Naval Ambitions in the Indo-Pacific?* The Diplomat, November 07, 2020. <https://thediplomat.com/2020/11/can-the-uk-achieve-its-naval-ambitions-in-the-indo-pacific/>

<sup>5</sup> 1<sup>st</sup> June 2020. Accessed on 5<sup>th</sup> July 2021.

<sup>6</sup> Indian Navy, *Ensuring Secure Seas: Indian Maritime Security Strategy*. New Delhi: IHQ MoD (Navy), 2015), p. 22.

cycles and distant deployments. The IN has, since long, sought to initiate indigenous production of another, improved, version of IAC-1 and aspects related to its design as well as spread of funding have been addressed by naval planners.

In this context, Gen Bipin Rawat, India's first CDS, soon after assuming appointment, in end-2019, had put 'the cat amongst the pigeons,' when he publicly rejected the navy's requirement of an additional aircraft-carrier, with the remark, *"Anything on the surface can be picked up by satellites and knocked off by missiles. I think the navy needs more submarines than aircraft-carriers, which require their own individual armadas for protection"*<sup>7</sup>.

Affluent nations have their own logic for maintaining aircraft-carriers in their order of battle, but for a rising power, like India, struggling to cope with multiple crises, there is need for reflection on this issue. Decisions regarding such critical matters should normally, be guided by a nation's security strategy. However, since India has yet to generate such a document, the Indian Navy's Maritime Strategy will have to be a substitute. In this context, let us look at India's past experience in this arena.

### India's Carrier Experience

The Indian Navy's steadfast adherence to the aircraft-carrier as the centre-piece of its doctrine and strategy has paid rich dividends over the past half-century. One striking manifestation of this was the contrast between the manner in which the Indian and PLA Navies, almost simultaneously, inducted new aircraft carriers into their fleets in 2012. The next four years saw the PLAN hesitantly feeling its way towards operationalizing the *Liaoning* and its complement of J-15 Tiger Shark fighters. Reportedly, help was sought from the Brazilian Navy, and they lost 3-4 aircraft to accidents.

The IN, on the other hand, given its 50 years of carrier operating experience, commissioned INS *Vikramaditya* in 2012 in Russia, and confidently sailed her, 12,000 miles to her new home in Karwar. By 2014, the ship and its squadrons of MiG-29K fighters and Kamov-31 ASW helicopters had been worked-up to fully operational status by day and night.

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<sup>7</sup> The New Indian Express, 17 February 2020.

<https://www.newindianexpress.com/nation/2020/feb/17/approval-for-third-aircraft-carrier-may-not-com-e-soon-indicates-cds-rawat-2104718.html>. Accessed on 25 June 2021.

The IN, justifiably, derives much satisfaction from the crucial role played by INS *Vikrant*'s squadrons of Sea Hawk fighters and Alize ASW aircraft, during the 1971 Bangladesh operations. However, it must be acknowledged that the ship was operating in a relatively benign environment, since the enemy air force was being kept engaged by the IAF. This brings into question, the logic and operational effectiveness of the IN placing reliance on a single, small, aircraft-carrier in the past.

While it has been a Hobson's choice, for the Service, faced with tight budgets and a lack of strategic awareness at the national level, the following limitations have loomed in the background:

- Both INS *Vikrant* and INS *Viraat* were "light fleet carriers"; the smallest in the carrier family. They were restricted in the all-up weight and number of aircraft that could be accommodated in the hangars and launched/recovered from their small decks.
- The ski-jump, although a useful innovation that facilitated STO/VL (short take-off, vertical landing) operations from small decks, placed limitations on aircraft payload.
- Due to these limitations, both ships, during their operational life, could only carry sub-sonic aircraft of limited range and endurance.
- The possible outcome of a Sea Hawk encounter with an F-86, in the 1970s, or a Sea Harrier interception of an F-16, in the 1980-90 era, remained a source of speculation (and concern) for carrier Captains and Fleet Commanders.

However, with a larger carrier, like the *Vikramaditya*, capable of operating state-of-the-art fighters, the Indian Navy's operational options have become much broader. Our task forces can now undertake missions, in the face of air-opposition, with confidence; given that tactical air support is available around the clock.

Here, it must be stated that the oft-mentioned requirement of a carrier to have an "*individual armada for its own protection*" is a misconception in most instances. Clearly, a carrier's own air-group of fixed-wing fighters as well as airborne ASW and AEW assets invests it with adequate capabilities for early detection and neutralization of threats in all three dimensions. Carrying a, notional, sanitized 'protective bubble'

of 200-250 nm radius all around it, a carrier, actually provides protection to the force that accompanies it, rather than needing protection from a large number of escorts.

While bigger navies may enjoy the luxury of a full ‘carrier battle-group,’ IN experience has shown that a carrier which can proceed at 20 knots plus, needs no more than a tanker and an escort of 2-3 destroyers or frigates for itself. The battle-group can be constituted on an ‘as required’ basis for specific missions. However, it is best if the safety of the carrier as well as its effective employment – whether for force-projection, sea-control, or ASW – remains a decision to be taken at a strategic level, with the best available intelligence inputs, rather than being left to the Task Force Commander’s tactical acumen.

Two factors need to be borne in mind here. Firstly, the ski-jump places limitations on aircraft payload, and should be replaced by a catapult on our future carriers. And secondly, given the new threats facing aircraft-carriers at sea, the IN needs to adopt appropriate counter-measures, in terms of hardware as well as tactics. Against this backdrop, let us undertake a brief examination of the impact of aircraft-carriers on seapower.

### Contribution of Aircraft Carriers

Carrier-borne air-power was instrumental in influencing the course of WW II, in almost all theatres. Whether it was hunting surface raiders like the *Bismarck*, long-range ASW and convoy escort duty in the Atlantic, power projection ashore in the Mediterranean or over-the-horizon carrier versus carrier combat in the Pacific, their role is too well known to be recounted here. The clamour for air-support at sea, in WW II, saw even merchant ships being equipped with fighters which could undertake a rocket assisted take-off, but then had to ditch in the sea.. This proved a useful, if desperate, measure and led to merchant ship hulls being quickly modified with a flight deck, to create ‘jeep carriers,’ which could accommodate 15-20 fighters.

The end of WW II saw the US Navy with a massive fleet of 99 carriers and the Royal Navy with 40 such ships of assorted types. Such inventories were, however, unaffordable and began to be rapidly reduced after the Japanese surrender. In post-War USA, a serious threat was posed to naval aviation by the newly formed USAF, which claimed world-wide reach with its strategic bombers. A period of inter-Service tension led to the cancellation of the super-carrier USS *United States*

and four sister ships. This was accompanied by the ‘Revolt of the Admirals,’ involving resignation of the US Navy Chief and other Admirals in 1949.<sup>8</sup>

Persistent Cold War tensions made it obvious that there was going to be no diminution in either the importance of carriers or in the roles assigned to them. In the seven decades since the end of WW II, carriers have continued to play a vital role in projecting air power to exert a decisive influence on distant conflicts. The Korean War, the Suez crisis, the long Vietnam War, the 1971 Indo-Pakistan War and the Falklands Campaign are just some of the conflicts in which carriers made a significant contribution.

More recently, the conflicts in the Balkans, Kuwait, Iraq, Afghanistan, Libya and Syria have consistently shown that not just the US Navy, but also the British, French, Russians and Italians have deployed aircraft-carriers as ‘sovereign territory’ in the Mediterranean Sea and Indian Ocean to project air-power and influence events far from home. The role played by carrier air-power in latter day conflicts has had an impact on not only Chinese thinking, but also led the Japanese to modify their two *Izumo* class LHAs to operate the F-35B STO/VL fighter,<sup>9</sup> with the Turks, South Koreans and Australians likely to follow suit.

Since the advent of carrier-based aviation, the US has designed and deployed twelve classes of aircraft-carriers, three of them nuclear powered, and flown some 200 aircraft types from their decks<sup>10</sup>. By constantly modifying the mix of aircraft in its air-wings, the USN has been able to maintain the relevance and unique contributions of carriers to US military power, in the face of continuously evolving threats.

### India’s Emerging Maritime Environment

India’s central position in the Indian Ocean Region (IOR), astride major shipping lanes accords it both advantages and responsibilities. Jutting a thousand kilometers into the ocean named after it, the Indian peninsula has over 7,500 km long of

<sup>8</sup> *US Naval Aviation*. Goodspeed, M Hill, Editor. Naval Aviation Museum Foundation. 2001. Pensacola, Florida. P 39.

<sup>9</sup> Chang, Felix K. *Taking Flight: China, Japan & South Korea Get Aircraft Carriers*. Foreign Policy Research Institute. 14 January 2021.  
<https://www.fpri.org/article/2021/01/taking-flight-china-japan-and-south-korea-get-aircraft-carriers/>. Accessed on 28 June 2021.

<sup>10</sup> Goure, Dan. *Why the Age of the Aircraft Carrier Isn’t Over Just Yet*. Real Clear Defence. February 2021. *Why the Age of the Aircraft Carrier Isn’t Over Just Yet* (realcleardefense.com). Accessed 3<sup>rd</sup> July 2021.

coastline, containing 200 major and non-major ports, with an exclusive economic zone of over two million square km, rich in food and mineral resources.

The waters of the Indian Ocean see over 120,000 merchantmen in transit, annually; carrying cargo worth a trillion dollars. Both east and west-bound shipping passes areas where it is vulnerable to interdiction or interference by states as well as non-state entities like pirates and terrorists. Since 95% of India's trade and energy is carried by sea, our national growth and prosperity remain dependent on safety and security of these sea lanes.

While, the strategic importance of the IOR is self-evident, less well-known are India's rapidly growing interests in the Pacific. Almost, 55% of India's trade with the greater Asia-Pacific area transits through the South China Sea and Indian companies have acquired offshore and onshore hydrocarbon drilling rights in littoral states as well as in the Russian Far East. Any attempts to dominate waters of the Indian or Pacific Oceans would represent a grave threat to India's vital interests.

The assumption, by India, of the role of 'a net provider of security' in the IOR, seen in conjunction with PM Modi's vision of SAGAR or "Security and Growth for All in the Region," place considerable responsibility on the IN. Not only do these undertakings require India to strengthen its offensive/defensive capabilities at sea, but also to bolster the navy's non-military roles, classified as: Benign, Constabulary and Diplomatic.

### China's Turn to the Sea

China's heavy dependence on Indian Ocean sea-lanes has led to its deep involvement in this region; virtually at India's doorstep. While its 'string of pearls' strategy was crafted for acquisition of maritime footholds, the 'Belt and Road Initiative' with its 'Maritime Silk-Road' component, pushes a far more ambitious maritime agenda linking China's economic and strategic interests in the Indo-Pacific with Europe and Africa.

Accordingly, China's 2015 Military Strategy signalled a shift of maritime focus from 'offshore' to 'open seas', which was a mandate for the PLA Navy to deploy

power-projection and sea-control forces in the Indian Ocean region (IOR)<sup>11</sup>. Starting with anti-piracy patrols in the Gulf of Aden in 2008, the PLA Navy has steadily gained experience and confidence in operations distant from home, with a small task force maintained continuously in the IOR since then.

With two aircraft-carriers already in service, and a third one on the way, the Chinese are rapidly consolidating, not just their shipbuilding skills, but also their expertise in operation and deployment of these complex weapon-platforms. Progressive increase in the size of these ships is a clear indication that the ultimate objective of this serial-production programme is the construction of nuclear-powered carriers, in the next few years.

The PLA Navy has been specifically mandated to safeguard China's interests, as far as the Maritime Silk Road and its vital IOR sea lanes are concerned, and has adequate 'blue-water' capable ships for this task. However, if PLAN surface forces have not made a conspicuous appearance in the IOR, so far, it is due their lack of organic air cover and vulnerability to India's naval and shore-based air-power<sup>12</sup>. But there should be no doubt that as soon as the PLAN is able to spare an aircraft-carrier, it would seek to create a permanent forward presence in these waters, and we could see a PLAN carrier battle-group leading an 'Indian Ocean Squadron' in these waters.

PLAN forces, deployed in the IOR, would not only pose a formidable threat to India's shipping as well as its homeland and island territories, but also to IN task forces on deployment in distant water. Such a threat can only be countered by if our forces have the benefit of an aircraft-carrier's protection.

### Carrier Vulnerability

Every new weapon system is inevitably followed by one or more counter-measures, and thereafter, by prophecies of its early demise. The carrier has – so far - managed to survive both, and to dominate the maritime scene, for close to a century. Proliferation of satellites and other sophisticated surveillance systems has rendered the maritime battle-space largely transparent, and critics claim that a carrier may now have few places to hide.

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<sup>11</sup> Full Text: China's Military Strategy (*Xinhua*) 26th May 2015.  
<http://en.people.cn/n/2015/0526/c90785-8897779.html>. Accessed on 28 June 2021.

<sup>12</sup> McDevitt, Michael, A. *China as a 21<sup>st</sup> Century Naval Power*. Naval Institute Press, 2020. Annapolis.

China, perceiving a grave threat from US Navy carriers, obviously, went to great lengths to evolve, what was termed by western analysts as, the A2AD strategy. Centred on the DF-21D and DF-26 anti-ship ballistic missiles (ASBM), amongst other weapons, A2AD added a new dimension to the carrier vulnerability debate. However, the initial panic having subsided, a view has emerged, that A2AD is an over-hyped buzzword leveraged to intimidate potential adversaries before the ‘match’ even begins.

Organic fire control radars cannot acquire targets at (over the horizon) ranges claimed, for ASBMs, and targeting data would have to come, via networking, from remote aircraft, drones, satellites, and distant land and sea-based radars. Forming such a ‘kill-chain’ is technically challenging and is vulnerable to disruption at any point in the chain<sup>13</sup>.

It also appears that a number of counter-measures may be available to degrade or defeat the effectiveness of this concept which has never been tried out against a live, moving target. Its efficacy in combat, therefore, remains a matter of assessment and even speculation, especially in the more open waters of the Indian Ocean. The options available to a carrier group include<sup>14</sup>:

- ☐ Degradation/destruction of target data sources.
- ☐ Mid-course interception using anti-ballistic missile weapons (including high-energy lasers and micro-waves.
- ☐ Use of course/speed alterations and decoys/smoke/camouflage to deceive the missile seeker-head.
- ☐ Hard-kill measures to achieve terminal destruction of incoming missile,.

A technological innovation which has the potential to radically change the calculus of carrier employment is the unmanned combat aerial vehicle (UCAV). A UCAV offers double or triple the range and many times more endurance than a manned aircraft,

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<sup>13</sup> Robelin, Sebastien. *A2AD: The Phrase that Terrifies the US Military*. The National Interest. 9<sup>th</sup> April 2019. Accessed on 28 June 2021.  
<https://nationalinterest.org/blog/buzz/a2ad-phrase-terrifies-us-military-and-china-and-russia-love-it-51597>

<sup>14</sup> Naval War College Review, Summer 2014, Vol 67, No.3. Robert C Rubel. *Theory of Air Power*. Pp 64-65

and this opens the prospect of a carrier remaining well outside the enemy ‘threat envelope’ and discharging a majority of its roles with relative impunity<sup>15</sup>.

In the context of modern combat, no platform can be considered ‘invulnerable,’ and naval units, if not deployed with tactical/operational acumen, will suffer in action at sea. However, notwithstanding its size, a fast-moving carrier is not easy to locate and identify at sea. Even if found, the carrier’s air group and escort is capable of neutralizing hostile ships, aircraft and submarines before they become a threat. In the worst case, even if it sustains missile hits, the carrier’s chances of surviving serious damage are far greater than those of any other type of ship.

### Inter-service Dissonance

The 1970s had witnessed an unsavoury wrangle between the IAF and IN, over control of the maritime-reconnaissance (MR) role. In 1976, the government directed that the MR role and assets were to be handed over to the IN. The IAF was, however, permitted to retain the shore-based anti-shipping strike role. Initially performed by a flight of Jaguar fighter-bombers, armed with anti-ship missiles (ASM) it is understood that a number of Sukhoi-30 MKI multi-role fighters have also been assigned this role and are based in South India.

After a 2018 IAF exercise, media reports claimed that, with these aircraft, “India can dominate the Indian Ocean Region against any military activity including that of the Chinese.”<sup>16</sup> Possibly based on such overstatements, claims have been made, that this capability should render aircraft-carriers redundant! Whether or not the IAF actually intends to expend resources for exercising ‘maritime domination,’ such reports have tended to cause unease in naval circles, already alarmed by Gen Rawat’s disparaging remarks about aircraft carriers.

In an inter-service environment already fraught with tensions over the impending formation of Theatre Commands, it would be imprudent to sow the seeds of another internecine conflict over aircraft-carriers. At this juncture, it would be pertinent to briefly discuss the viability of shore-based air support at sea.

<sup>15</sup> X-47UCAS <https://www.northropgrumman.com/what-we-do/air/x-47b-ucas/>. Accessed on 26th June 2021.

<sup>16</sup> *India Today*, 23 April 2018. <https://www.indiatoday.in/mail-today/story/iaf-hits-warships-in-deep-sea-carries-out-attacks-on-targets-1217937-2018-04-23>. Accessed on 5 July 2020.

### How Viable is Shore-based Air Support at Sea?

The IN is, currently, well-endowed for strike at sea, thanks to its force of ship-borne MiG-29Ks and shore-based P-8(I) Poseidons, soon to be joined by SH-60 helicopters; all ASM-armed. While the supplementing of this capability, by the IAF, is to be welcomed, it is necessary to remain firmly in touch with reality for a number of reasons.

Firstly, the process of requisitioning of air-effort from the IAF can be a convoluted and trying affair in time-critical situations. Secondly, in today's crowded maritime environment, obtaining positive identification of (beyond visual range) targets before ASM release could pose serious difficulties for a shore-based aircraft. Last and most important is the severe limitation of 'loiter-time' available to a shore-based aircraft, flying in support of a naval force 500-1500 miles out at sea; notwithstanding inflight refuellers.

These difficulties are not insurmountable, but require intense Navy-IAF coordination and full tactical interoperability, including networking, that are currently not available. Perhaps, they could be developed in a Theatre Command environment. Apart from the practical and operational factors pointed out, it must be borne in mind that the nature and intensity of future conflicts, will demand the commitment of assets by IAF to numerous tasks, which include<sup>17</sup>:

- ☐ Nuclear 2<sup>nd</sup> strike.
- ☐ Acquiring air dominance.
- ☐ Counter-air operations.
- ☐ Providing battlefield air support to the army.
- ☐ Air-defence of the homeland.

Given these constraints, and going by past precedent, it is considered extremely unlikely that the IAF will be willing or able to place a force of Jaguars/Su-30s, exclusively, at the navy's disposal for anti-shipping strike.

### Can Air Power be Shared?

Air power has, unquestionably, become intrinsic to every form of military operations; on land, at sea or in the air. While 'indivisibility of air power' may have been a good

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<sup>17</sup> Prakash, Arun. *India's Maritime Air Power - Outlook for the 21<sup>st</sup> Century*. Naval War College Journal Vol 32.

hypothetical construct in the past, it is no longer tenable today. In the current environment of fiscal stringency, far more pertinent is the question: how should air power be deployed or shared to fulfill the vital operational needs of the army, navy and air force? The UK, an extremely cost-conscious country, has some lessons for us.

The utilization of national air assets in UK have been impacted by the Royal Air Force description of air power as: *“Inherently joint, combined and multinational; drawn from all three Services; concerned with the effective exploitation of all air and space power assets; influenced by, and influences, the land and maritime environments.”* A direct outcome of this outlook has been the pooling of helicopter of all three services to form the Joint Helicopter Command (JHC). With nearly 300 helicopters flown and maintained by tri-Service crews, the JHC is commanded, in rotation, by two-star officers of the navy, army and the air force. It has seen successful operational deployments in Iraq and Afghanistan.

In the context of carriers, of even greater interest is the sterling example of ‘jointness’ demonstrated by the British services on board HMS Queen Elizabeth in 2021. The F-35B fighters embarked on board this ship belong to a Royal Air Force unit, No. 617 Squadron. The squadron is manned by a joint crew (including pilots) of RAF and RN personnel and, uniquely, the Commanding Officer of this RAF squadron is a Royal Navy officer.

Given its growing reach and strategic capabilities, that include long-range strike, aerial-refuelling and AWACS, the IAF can be a powerful ally whose cooperation the IN must actively seek. This may be a good time for the two Services to get together and, instead of bickering over the ‘budgetary cake’ and hardware, evolve an Air-Sea Battle Doctrine which would create an effective air-power synergy between IN aircraft-carriers and IAF shore-based units.

### Conclusion

When discussing aircraft-carriers, the focus is mostly on their role in conflicts. But it must be noted that these ships have an equally significant role to play in peacetime as well. Since peace, fortunately, prevails 99% of the time, it is an indicator that deterrence is working. It is only when deterrence fails that war follows. While the ‘survivability’ of these ships, in a conflict, can be debated endlessly, it is considered

that an attack on an aircraft-carrier would constitute a most serious provocation, and a step highly unlikely to be initiated, by a belligerent nation, unless a major/global conflict is contemplated.

Mention has been made of the value that a carrier brings to situations that require, ‘maritime diplomacy,’ ‘presence,’ ‘show of force,’ or ‘humanitarian assistance and disaster relief.’ Countries, like China, that have elected to pursue ambitious aircraft-carrier building programmes have, obviously, taken account of the risks, vulnerability and costs of such ships, and concluded that the peacetime benefits outweigh wartime risks.

In the current Indian scenario, apart from the balance of forces on land/air, favouring China, there is also the Beijing-Islamabad Axis that awaits activation. Given the difficult situation confronting India on its northern borders, it is logical for decision-makers to explore possibilities in the maritime domain, where India is favourably placed and options exist, both for power-balancing via partnerships as well as direct action via naval deployments<sup>18</sup>.

The IN, despite political indifference and parsimonious budgets, has emerged as a compact but professional and competent force. However, given China’s maritime ambitions, economic strength and prodigious shipbuilding capacity, India will need to significantly, enhance its naval force-levels. While an ‘arms race’ is unthinkable, if India is to face up to China in the maritime domain, it is considered imperative that one or more additional carriers are planned/budgeted in the near future.

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<sup>18</sup> Prakash, Arun. *India must formally revive Quad, Seek its Expansion*. Indian Express. 22<sup>nd</sup> July 2020.