



LOCATING THE ROLE FOR AIRCRAFT CARRIERS IN THE INDO-PACIFIC

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The relevance of aircraft carriers has been a topic of hot debate among the strategic community lately. The aircraft carriers are the largest and most complex of all warships and bestow a great degree of prestige to the nation-states owning them. At the same time, they represent high costs for their construction, operations and maintenance. This puts a great burden on the exchequer and questions arise about their viability in an age of advanced and informational warfare.

Two strategic thinkers recently gave their perspectives in a national daily. One scholar disapproved the aircraft carriers by stressing on their 'fiscal imprudence'¹, while the other scholar² countered this argument by stating their need for 'superior sea command' as well as 'effective power projection' against the adversary at sea. This context necessitates one to understand the origins of the aircraft carriers and their doctrinal roles that made these large warships an important part of war game

strategies. One also needs to realise their evolving role with respect to the Indo-Pacific region that has the maximum presence of these aircraft carriers presently.

Origins and doctrinal roles of the Aircraft carriers

These sprawling ships came into existence during the First World War. In 1909 the French inventor Clément Ader published in his book *L'Aviation Militaire* the description of a ship to operate airplanes at sea, with a flat flight deck, an island superstructure, deck elevators and a hangar bay³. The first ship to have a full-length flat deck was *HMS Argus*, the conversion of which was completed in September 1918. However, the first purpose-designed aircraft carrier to be laid down was *HMS Hermes* in 1924.

It was during WW-II that the aircraft carriers were at sea, carrying aircraft under three major categories- torpedo bombers (also used for conventional bombing and reconnaissance), dive bombers (also used for

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reconnaissance) and fighter planes (for fleet defence and to escort bombers). Aircraft carriers played a significant role during WW-II. The biggest advantage that Royal Navy had over Germany and Italy was having as many as seven aircraft carriers⁴. In the Pacific Ocean too, the aircraft carriers provided considerable clout to Japan that had its ten carriers⁵ against three operational carriers that US had during WW-II *Pacific War* (although it had seven aircraft carriers that faced hostilities during the war). The Battle of the Philippine Sea in 1944 between Japan and the US was the largest aircraft carrier battle in history and the decisive naval battle of World War II.

Post WW-II, the physical characteristics and the operational performance underwent a sea-change for progressive development. The newer versions were bigger in size, equipped with better and effective technologies and nuclear powered reactors that provided more endurance at sea than diesel powered engines. However, during WW-II, the aircraft carriers obligated six doctrinal roles⁶ as explicated by Robert Rubel that made them a necessary part of naval warfare.

The first role according to Rubel was that they were the *eyes of the fleet* by providing a home to the fighter aircraft. Second, they formed the *cavalry* as they were capable of conducting hit-and-run raids during 1930s and 1940s. Third, an aircraft carrier formed a *capital ship* for its

capability of defeating any ships during those times. Fourth, with the advent of nuclear weapons, the carriers also acted as a *nuclear strike platform*. Fifth, even though these aircraft carriers violated the traditional rule of tying the entire fleet to a place – and thus making it vulnerable – they acted as an *airfield-at-sea*. During the Korean and Vietnam wars, U.S. aircraft carriers provided an exclusive role as a mobile airfield in Pacific waters in the respective campaigns. Last, but the most significant role, was that as the aircraft carriers operate in the high seas and demonstrate resolve of the state, they act as a *geopolitical chess piece*. The sixth role is even more relevant in today's geopolitical realm. Post WW-II, the physical characteristics and the operational performance of aircraft carriers underwent a sea-change for a progressive development. The newer versions were bigger in size, equipped with better and more effective technologies and some had nuclear powered reactors that provided more endurance at sea than diesel powered engines.

The debate on their utility

The two schools of thought in recent times on the utility of these aircraft carriers have polarised arguments. As these machines are technologically complex and time consuming to build, operate and maintain, the ownership of aircraft carriers is a *capital intensive* initiative for the states. The huge size and weight leads to its

slow mobility and manoeuvrability at sea, making it tactically *vulnerable*.

On the other hand, aircraft carriers also form a formidable force at sea. They impart a psychological Balance of Power, provide access to the littoral spaces and also enable tactical air cover to the militaries across the world; the pride and status that they add to the military strength of the country is an immense intangible. Furthermore, the most important function that they carry out is during peacetime. The presence of aircraft carriers in the high seas leads to power projection under the concept of 'sea-control', and in some cases 'sea-denial' to other states.

Aircraft Carriers in the Indo-Pacific region⁷

The presence of aircraft carriers in the Indo-Pacific waters is not a new phenomenon. Since the 1950s, US aircraft carriers have maintained their presence in the region. As a Pacific nation and a Pacific leader, the United States has its national interest in maintaining security and prosperity, peaceful resolution of disputes, unimpeded lawful commerce, and adherence to freedom of navigation and over flight throughout the shared domains of the Indo-Pacific. U.S. Navy aircraft carriers have conducted dual carrier strike group operations in the Western Pacific – including the South of China Sea, East of China Sea and Philippine Sea – for several years⁸.

As on date, the US Navy has 10 active aircraft carriers. The major powers in the Indo-Pacific that own aircraft carriers are: Japan (3), Australia (2), India, China, Japan, Thailand, South Korea and Russia (one each) – although some of these are nothing more than Landing Platform Helicopter (LPH) amphibious assault ships.⁹ China and India are in the process of building their indigenous aircraft carriers.

Enhancing tactical strength at Sea

Today, the world has moved away from the Cold War type of war-fighting to one with a high tech, informationalized, psychological warfighting era. The technologies available to most countries are multifarious in nature, can target at different ranges and with varying capacities. Weapons of defence rule the game in the current scenario. The mobility that can be provided by the aircraft carriers provides States the much needed tactical strength at sea.

The aircraft carriers provide considerable advantage as a mobile air-base to the navies operating in the high seas. These carriers can carry newer technologies such as Anti-ship ballistic missiles, anti-submarine warfare capabilities, anti-ship cruise missiles, improved air-defence systems, short take-off/ landing jets, monitoring station for UAVs and so on. These weapons enable the navies to detect and preempt an attack from the adversary. As the seas across the region are becoming highly militarised – with nuclear enabled submarines and other

offensive technologies – a mobile fleet increases a country's strength significantly.

Certain navies use them to demonstrate their sea command over a zone in the high seas – a scenario that became highly debatable in the case of China- US aircraft carrier military show off in the East and South of China Seas in December 2016¹⁰.

The case of Indo Pacific

The Indian Ocean Region (IOR) is seeing a power struggle unfolding in recent years. This is likely to continue and intensify in future. India being the major naval player in the region has taken the responsibility of being the 'net security provider' in the region. The security extends to both non-traditional and traditional security threats. There is a growing scholarship that suggests Indian Navy needs to acquire foundational yet overlapping capabilities in the Indian Ocean region, namely Sea Control in the IOR and Power projection – both within and beyond IOR. One needs to bear in mind that the maritime scenario in the Indian Ocean differs from that of the Pacific as there are no maritime or territorial claims in the region. However, there is presence of offensive weapons such as Chinese and Pakistani submarines that are threatening to destabilise the harmony within the region.

An increased Chinese and Pakistani presence in the Indian Ocean is a matter of concern for India. China has its strategic assets in

several places around the IOR and its increased presence in the region has been taken serious note of by New Delhi. It becomes pertinent for India to increase its footprint in the Indian Ocean region for peace and stability of the entire region. As discussed above, the aircraft carriers can find their suitable role in the IOR by providing a Command, Control, Communications, Computers, Intelligence, Surveillance, Reconnaissance (C4ISR) framework as well as extending Maritime Domain Awareness (MDA) support at sea.

The debate, however, can be enriched by bringing other important aspects such as numerical strength of aircraft carriers vis-à-vis submarines with superior technologies being available today. Currently, India has only one aircraft carrier, the INS Vikramaditya (a refitted Soviet era carrier), which is fully operational. Another indigenously developed carrier (INS Vikrant) is expected to be in service by 2018 end. In 2016, US offered India an option for joint development of the aircraft carriers¹¹. Fighter aircraft - Mig-29K, Light Combat Aircraft and Kamov-31 helicopters - will be deployed on board the carrier which will also carry an array of other weapons systems¹².

The induction of more of these expensive aircraft carriers needs to take into consideration their function and scope in view of the emerging threats and the type of warfare in the future. Furthermore, it can be more beneficial for the

Indo-Pacific region as a whole if New Delhi considers making a consortium of aircraft carriers available with other countries (mentioned above) for a joint presence in Indian Ocean.

A cost benefit analysis on the utility of these flat-tops would be a welcome debate in the Indian context and a look out for available, efficient and pragmatic solutions is likely to provide the desired robust Indo-Pacific security.

(Disclaimer: The views and opinions expressed in this article are those of the author and do not necessarily reflect the position of the Centre for Air Power Studies [CAPS])

Notes

¹ *LiveMint*(2017),“The problem with India’s naval build-up”. Published on 15 March 2017.Accessed online. URL: <http://www.livemint.com/Opinion/itCxLclVmVqEu3rbEMaSO/The-problem-with-Indias-naval-buildup.html>

² *LiveMint* (2017), “Making the case for India’s naval build-up” Published on 24 March 2017.Accessed online. URL:<http://www.livemint.com/Opinion/ASEBsxXh9keNm v9MZMQWIL/Making-the-case-for-Indias-naval-buildup.html>

³ Carriers: AirPower at Sea (2003). Accessed online. URL: <http://www.sandcastle.com/sea/carriers/cvchap1b.htm>

⁴ http://defenseweb.wikia.com/wiki/Aircraft_Carrier

Also, Polmar, N. (2006), “Aircraft Carriers: A History of Carrier Aviation and its Influence on World Events”, Washington D.C. Pootomac Books Inc. pp.95. Accessed online. URL:<https://books.google.co.in/books?id=buiaej5-nPUC&pg=PA95&lpg=PA95&dq=Royal+Navy+had+over+Germany+and+Italy+was+having+as+many+as+seven+aircraft+carriers&source=bl&ots=9WUUV4he7u&sig=kXeRaxhH2fo3i3-VLQYSXnA1bio&hl=en&sa=X&ved=0ahUKEwjAz4C3hLTAhXGPo8KHUghA90Q6AEIRTAH#v=onepage&q=Royal%20Navy%20had%20over%20Germany%20and%20Italy%20was%20having%20as%20many%20as%20seven%20aircraft%20carriers&f=false>

⁵ Evans, David C; Peattie, Mark R (1997).Kaigun: Strategy, Tactics, and Technology in the Imperial Japanese Navy,

1887–1941. Annapolis, Maryland: Naval Institute Press, pp.323.

⁶ Rubel, R. (2011), “ The Future of Aircraft Carriers” , Naval War College Review, Autumn 2011, Vol. 64, No. 4 . Accessed online. URL: <https://www.usnwc.edu/getattachment/87bcd2ff-c7b6-4715-b2ed-05df6e416b3b/The-Future-of-Aircraft-Carriers>

⁷ Indo-Pacific is an evolving ideological construct that defines a regional strategic framework encompassing both Indian and Pacific Oceans and their neighbouring countries.

⁸ In Sept. 2014, USS George Washington (CVN 73) and USS Carl Vinson (CVN 70) strike groups conducted combined operations in the Western Pacific and in Sept. 2012 they operated in the South China Sea and East China Sea. In 2009, George Washington and USS Nimitz (CVN 68) operated together in the Western Pacific, and in 2001, USS Constellation (CV 64) and Carl Vinson operated together in the South China Sea.

⁹ *Global Fire Power*, “Aircraft Carrier Strength by country”.Accessed online. URL: <http://www.globalfirepower.com/navy-aircraft-carriers.asp>

¹⁰ *Business Insider India* (2016), “China just confronted the US Navy for the first time - and it looks like they came out on top”. Published on 20 Dec 2016.Accessed online. URL: <http://www.businessinsider.in/china-just-confronted-the-us-navy-for-the-first-time-and-it-looks-like-they-came-out-on-top/articleshow/56089565.cms>

¹¹ Kazianis, H. (2016), “America's Master Plan to Turn India Into an Aircraft Carrier Superpower” ,*The National Interest*. Accessed online. URL:<http://nationalinterest.org/blog/the-buzz/americas-master-plan-turn-india-aircraft-carrier-superpower-15120>

¹² *The Times of India*(2013), “India launches first indigenous aircraft carrier INS Vikrant”.Published on 12 Aug 2013.Accessed online. URL: <http://timesofindia.indiatimes.com/India/India-launches-first-indigenous-aircraft-carrier-INS-Vikrant/articleshow/21774409.cms>