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Aircraft Carriers in the Indo-Pacific: Enduring Value

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SYNOPSIS

Aircraft carriers are admittedly vulnerable to a number of weapons, increasingly hypersonic missiles. However, their value in a variety of scenarios greatly outweighs their vulnerabilities, and for these reasons Indo-Pacific navies are redoubling their efforts to acquire fixed-wing aircraft carriers.

COMMENTARY

THE POWER of the aircraft carrier was proven in the Pacific. The Battle of Midway, in June 1942, was the first carrier-on-carrier clash, and the United States' decisive victory was a major vindication of the potential of the aircraft carrier.

Three-quarters of a century later, the aircraft carrier and carrier operations continue to captivate regional navies in the Indo-Pacific. China commissioned its first aircraft carrier, the ex-Soviet *Varyag* (now the *Liaoning*), in 2012. Moreover, one homebuilt carrier – the Type 001A – is currently undergoing sea trails, while a third carrier (Type 002) is under construction. It has been speculated that the Chinese navy (PLAN) could eventually operate up to six aircraft carriers, equipped with an indigenous fighter (probably the Shenyang J-15).

New Kids on the Block

India, China's major regional competitor, is keeping apace. The Indian Navy is in the process of accepting two new carriers, one based on the 45,000-ton *Admiral Gorshkov* (sold to India in 2004 and heavily refitted as the INS *Vikramaditya*), and an indigenously built INS *Vikrant*, which is currently undergoing sea trials. A second indigenous carrier is likely, for a total of three carriers.

Current Indian and Chinese aircraft carriers rely on a "ski-jump" design: a curved ramp on the flight deck that permits aircraft to take off without using a complicated (and expensive) catapult.

More importantly, countries that have never operated aircraft carriers – or who gave up their carriers decades ago – are rethinking their positions.

In particular, Japan is likely to soon have its first aircraft carriers since the end of World War II. Late last year, the Japan Maritime Self-Defence Force (MSDF) announced that it would convert its two 27,000-ton *Izumo*-class "helicopter destroyers" – basically open-deck amphibious assault vessels – into ships capable of operating fixed-wing aircraft. At the same time, the MSDF revealed that it is buying 42 F-35Bs, the short-takeoff and vertical-landing (STOVL) variant of the F-35 Joint Strike Fighter; most of these will probably be deployed on these ships.

Not to be outdone, South Korea recently announced that it is building a new 30,000-ton flattop (note that the Koreans always make their warships slightly bigger than the Japanese). Like the Chinese and Indian carriers, it will be equipped with a ski-jump-type launch ramp capable of operating STOVL aircraft like the F-35B. This ship could operate up to 16 STOVL fighters, as well as carry up to 3000 Marines).

Singapore is also reportedly looking into buying F-35Bs, which could be deployed on a new, open-deck amphibious assault ship that it is building. Finally, Russia operates the "heavy aircraft cruiser" *Kuznetsov*; although home-ported with Russia's Northern Fleet, the Kuznetsov could conceivably be deployed to the Pacific.

Game-changer or "Cruise Missile Magnet"?

Interestingly, this flurry of interest in aircraft carriers in the Indo-Pacific is taking place against a backdrop of mounting criticism over the value of carriers. In particular, given the threat posed by the rise of hypersonic missiles, many see large naval vessels like aircraft carriers as overly vulnerable.

In recent congressional hearings to confirm the new Chief of Naval Operations, Senator Angus King called hypersonic missiles a "nightmare weapon" that threatened to make carriers obsolete.

This is hardly a new argument.

Aircraft carriers have been called "cruise missile magnets" ever since the first antiship cruise missiles (ASCMs) appeared in the 1960s. During the 1982 Falklands War, for example, the HMS *Sheffield* and two cargo ships were sunk by *Exocet* ASCMs.

During the 1990s, this threat morphed into *supersonic* ASCMs (such as the SS-N-22 *Sunburn*, that the Chinese acquired from Russia), while during the 2000s it was the antiship ballistic missile (such as China's DF-21D) that became the new "carrier-killer," against which was "no defence".

Why Carriers (with Caveats) Still Important

The vulnerability of aircraft carriers during wartime is real. It always has been, going back to the Japanese *kamikaze* suicide planes, which sank at least three aircraft carriers near the end of World War II. Theoretically, *lots* of things are vulnerable to attack in wartime: surface ships, airfields, ports, radar installations, missile silos, command centres and so on. The point is to make better defences.

At the same time, the value of aircraft carriers still greatly outweighs their vulnerability. They have considerable impact in peacetime operations, providing large, secure platforms from which to launch humanitarian and disaster relief activities.

In crisis situations or during periods of international tension, they serve as potent signals – as the United States like to call its supercarriers, "100,000-tons of international diplomacy".

Most important, in military operations, aircraft carriers are still invaluable. Despite their vulnerabilities, the British found its carriers to be instrumental to providing air support to their naval and land forces during the Falklands War; without Harrier jets flying off those carriers, British casualties would have been much worse.

Technological Limitations Aside

Short of outright war, carrier battlegroups provide useful naval footprints for security, including air defence, antisubmarine operations, and intelligence-gathering. Moreover, their deterrent value goes without saying.

To be sure, so far most current or future Indo-Pacific aircraft carriers have considerable limitations. Most are small and can only carry relatively few numbers of fixed-wing fighters, especially compared to US supercarriers (the Chinese Type 001A operates at most 32 J-15 fighters, about half what a US carrier can carry).

Moreover, the ski-jump design severely limits the number of aircraft that can operate at any one time, while also reducing the usefulness of the aircraft itself: the plane has to hold so much fuel that it is almost literally a flying gas tank, unable to carry more than a handful of armaments.

These are technological limitations, however, and ones that will likely be tackled by later carrier designs. Despite their vulnerabilities, therefore, the aircraft carrier's value endures.

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