
NAVIGATING RISK: China's Aircraft Carrier Strategy

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The rise of China as a global power has been accompanied by significant advancements in its military capabilities, particularly in the realm of naval warfare. One of the key manifestations of this progress is China's investment in aircraft carriers (ACs), symbolizing its ambition to assert itself as a formidable maritime force in the Asia-Pacific region and beyond. In the wake of China's recent launch of the *Fujian*—its third AC and the first designed domestically—this article provides an analysis of the motivations behind the People's Republic of China's (PRC) quest for naval capacity and its projected impact on US strategy in the Indo-Pacific.¹ This paper delves into the implications of China's AC development by examining the strategic motivations behind this endeavor, its impact on regional security dynamics, and the challenges and opportunities it presents for China and other key players in the international arena.

Strategic Context

ACs stand as potent symbols of military power. China's growing investment in carriers underscore its increasing influence, which challenges the US's longstanding presence in the region. Operationally, ACs represent a strategic military asset serving as floating airbases and allowing further projection of air power across vast distances as they allow for naval superiority and air supremacy. Once operational, the *Fujian*, the People's Liberation Army Navy's (PLAN) latest AC, will surpass the capacities of China's previous carriers—*Liaoning* and *Shandong*—in terms of size and technology.²

Contrary to common belief, the PRC is not developing ACs to signal its status as a great power.³ Instead, in response to the historical shocks of Tiananmen Square (1989), the Gulf War (1990-1991), and the Soviet collapse (1991), previous Chinese administrations—from Deng Xiaoping to Hu Jintao—adopted an approach known as “Tao Guang Yang Hui,” which consisted of a *blunting* strategy to counter perceived American threats.⁴ Militarily, this focused on sea denial rather than sea control. Politically, the PRC joined and stalled regional institutions to limit American influence. Economically, it sought to reduce its vulnerability to US leverage through initiatives like Permanent Normal Trading Relations (PNTR) and WTO membership.

In 2009, Xi Jinping's rise to power reflected a strategic shift towards a *building* strategy.⁵ This led to the rapid launch of the PRC's carrier program, which had been intentionally delayed

¹ Kathrine Hille, “China's Newest Aircraft Carrier Prepares to Take to the Seas,” *Financial Times*, September 14, 2023; Alex Hollings, “China Wants to Dominate the Seas—And Just Built a Terrifying New Aircraft Carrier,” *Popular Mechanics*, December 14, 2023.

² Hille, “China's Newest Aircraft Carrier Prepares to Take to the Seas;” Hollings, “China Wants to Dominate the Seas.”

³ Rush Doshi, *The Long Game: China's Grand Strategy to Displace American Order* (New York: Oxford University Press, 2021).

⁴ Doshi, *The Long Game*.

⁵ Doshi, *The Long Game*.

under the *blunting* strategy that prioritized regional contingencies and sought to avoid alarming the US and its neighbors. China's quiet preparations during this intentional delay ensured a running start when strategic conditions were favorable. Seeing an opportunity in what they perceived as a US decline after the 2008 global financial crisis, the PRC began openly pursuing the foundations for regional hegemony—shifting from sea denial to sea control—and aligned its new carrier competencies with its strategic objective to enforce maritime sovereignty and ensure regional intervention capacity. Conflicts with neighbors were given priority, as well as pursuing amphibious landings and patrol sea lines of communications (SLOCs).⁶ This decision reflected a calculated departure from previous constraints and a move towards building a larger carrier-based navy.

While PLAN's current competencies are restricted to the regional level, it has *blue-water* potential. Assumptions that the PRC will not adopt a complex network of far-flung bases and global capabilities akin to the US might overlook the possibility of China engaging in operations beyond the Indo-Pacific without replicating America's extensive global footprint. Historically, major powers like the US did not duplicate the British network of coaling stations and continental-sized colonies. Similarly, China might forge its own hybrid path, diverging from the American reliance on allies and numerous overseas bases.

In sum, if China's primary motivation were to showcase great power status rather than pursue strategic objectives, the People's Liberation Army (PLA) could have opted for a minimally functional display carrier and retrofitted it for military use—like in the cases of Brazil and Thailand—during periods of legitimacy crises, as observed after the events of Tiananmen Square.⁷ Instead, the PRC decided to abstain from such actions, even rejecting the acquisition of the *Liaoning* due to associated political risks. The situation has evolved in the last few years, with recent indications suggesting China's pursuit of nuclear-powered carriers. To bolster extra-regional operations, the PRC has increased investments in underway replenishment ships, air-to-air refueling capability, ship tenders, and expanded satellite communications in critical preparation for a global reach.

Position of the US

The PRC's launch of its third AC in June 2022 underscores its challenge to the longstanding maritime dominance that the US has maintained in the Indo-Pacific for the last decades. This shift in naval capabilities poses a strategic concern for the US, as it jeopardizes its historical superiority in the region. Yet, while an improvement over its predecessors, the *Fujian* falls short of direct competition with the US due to its lack of nuclear propulsion and its smaller scale.⁸ Unlike the nuclear-powered super-carriers of the *Ford* and *Nimitz* Classes, the *Fujian* relies on support ships for extended range. Moreover, although the *Fujian* comes with advanced catapults—namely, electromagnetic aircraft launch systems (EMALS)—that align with US technology,⁹ tests this past November have shown markedly decreased effectiveness compared to America's nuclear carriers.¹⁰ Aside from technological differences between American and Chinese carriers, the PLA also faces another issue: a lack of qualified pilots. Despite its investment in ACs, the PLA is encountering problems finding pilots who can use the aircrafts, further limiting their

⁶ Doshi, *The Long Game*.

⁷ James J. Wirtz, Jeffrey E. Kline, and James A. Russell, *The U.S. Navy and the Rise of Great Power Competition: Looking Beyond the Western Pacific* (New York: Routledge, 2024).

⁸ Brad Lendon, "Never Mind China's New Aircraft Carrier, these are the Ships the US Should Worry About," *CNN*, June 26, 2022.

⁹ Alex Luck, "Chinese Aircraft Carrier Fujian Commences Catapult Testing," *Naval News*, November 26, 2023.

¹⁰ "Carrier USS Ford's Electromagnetic Systems Still Need Work," *The Maritime Executive*, February 6, 2023.

ambitions. This point is of crucial importance as it obstructs the *Fujian*'s mission to offset US air superiority and equip the PLA with greater operational freedom.¹¹

While China's carrier strategy may not imply a direct challenge to current US naval capabilities, it does put pressure on America's regional allies, deviating them from the US-centered security architecture. The PRC is working towards the construction of a post-American fleet and emphasizing the importance of foreign bases—such as in Cambodia and the Solomon Islands—for surveillance and rapid deployment.

Positions of Regional Actors

In the ongoing debate surrounding the efficacy of ACs, maritime experts posit that these vessels exhibit optimal effectiveness when utilized against nations that lack a robust naval force. This perspective implies that both the US and the PRC are unlikely to deploy their carriers against each other. Rather, the PLAN is developing these assets to exert influence over neighboring nations with comparatively weaker military capabilities, especially in regional disputes in the South or East China Sea. Particularly concerning is the PLA concept of “using the enemy to train the troops,” *nadi lianbing*. Initially applied in undersea warfare and later adopted as a doctrine in November 2020, *nadi lianbing* involves leveraging military encounters, particularly along China's maritime periphery, for valuable training opportunities.¹²

In the dynamic landscape of the Indo-Pacific, US regional allies find themselves at a crossroads, navigating the delicate balance between relying on US security assurances and fostering economic ties with China. Overall, the PRC's development of ACs represents a significant shift in the regional balance of power—challenging the traditional dominance of the US in maritime affairs—as well as a threat to US allies' military capabilities. Thus, regional actors must recalibrate their strategic calculations in response to China's investment in ACs.

Strategic Overview

There are several trends and strategies that the US has pursued to address the challenges posed by Chinese investment in ACs.

Naval Modernization and Technological Advancements

The US Navy enjoys the largest fleet of ACs in the world by a significant margin: of the 25 ACs in service across the world, 11 belong to the US. By comparison, the PRC has only three—counting the *Fujian*, which is still being finalized. In addition to its numerical superiority, the US boasts a quality advantage. It has invested in the modernization of its ACs, developing advanced technologies to maintain a qualitative edge.¹³ Technological superiority—including next-generation carriers such as the USS *Gerald Ford*—has long been the cornerstone of US military policy.

However, there are several drawbacks to this policy. The cost of American ACs is extremely high. The USS *Ford* amounted to \$13 billion and its commissioned successors—the *Kennedy* and the *Enterprise*, to be completed in 2025 and 2028 respectively—will cost \$9 billion each. Despite this tremendous investment in ACs—which is questioned by several naval strategy experts—

¹¹ Lendon, “Never Mind China's New Aircraft Carrier.”

¹² Ryan D. Martinson and Conor Kennedy, “Using the Enemy to Train the Troops—Beijing's New Approach to Prepare its Navy for War,” The Jamestown Foundation, March 25, 2022; Christopher Woody, “China's Risky Maneuvers Around the US Military are part of a Long-Running Plan to Use ‘the Enemy to Train the Troops,’” *Business Insider*, December 15, 2023.

¹³ John F. Schank et al., “Modernizing the U.S. Aircraft Carrier Fleet: Accelerating CVN 21 Production Versus Mid-Life Refueling,” RAND Corporation, 2005.

American carriers are still vulnerable to cutting-edge Chinese technology. In line with its longstanding sea control strategy, the PLA is bolstering its anti-access/area denial (A2/AD) capabilities, seeking to target the enemy's AC competencies.¹⁴ This includes a diverse arsenal of cruise and ballistic missiles, such as the YJ-21 and IRBM DF-26, with the second being able to hit as far as the second island chain (SIC). The PLA has also invested in drones and satellites for its anti-AC strategy.¹⁵ Drones play a vital role in modern naval warfare, as evidenced by the Bayraktar drone that helped sink the Russian flagship *Moskva* in April 2022. Satellites, crucial for tracking ACs, are another focus of China's substantial investment in optical reconnaissance and synthetic aperture radar (SAR) technology, with satellites like Yaogun proving essential for EUINT.

US policies respond to China's growing A2/AD capabilities by investing in a multifaceted approach through the enhancement of long-range precision strike power; reinforcement of the submarine fleet; and deployment of advanced anti-ship missiles, exemplified by the RIM-162 ESSM, designed explicitly to counter supersonic anti-ship threats. These efforts aim to penetrate China's A2/AD network—arguably more concerning than its AC development—and ensure US ability to control sea and air power, especially beyond the first island chain (FIC).¹⁶

The evolving strategic landscape has triggered an arms race between the US and China, escalating tensions. The PLA's power-projection potential, primarily through the PLAN and the PLA Air Force (PLAAF), reinforces China's existing A2/AD capabilities.¹⁷ Current assessments suggest that US forces can maintain sea control between the FIC and SIC but would face formidable challenges within the FIC. China's claim regarding the efficacy of its DF-26 IRBMs to target US and allied bases in Guam—approximately 2,000 miles away—adds complexity to the strategic calculus. Even more concerning are Chinese DF-41s, which could hit as far as the US mainland.

Another downside of American strategy is the lengthy development timelines that lag behind China's expeditious military advancements in the last decade. The PRC plans to build as many as six ACs by the 2030s—which would match the current number of American carriers in the Indo-Pacific—and is set to build nuclear-powered carriers, despite delays due to financial and technical constraints. This marks a significant departure from the *Liaoning*, China's first carrier built from a Ukrainian-made hull acquired in 1999, and the *Shandong*, a copy of that ship manufactured in China, with older ski-jump ramps.¹⁸ The *Liaoning* and the *Shandong* can be viewed as significant milestones for the nation, but their capabilities are limited. Analysts often characterize the *Liaoning* as a training carrier that helped the PLAN get into AC operating mode—working up a cadre of operators and generating a group of officers' familiar with the issues. The *Shandong* was an experiment in gearing up the shipbuilding industry to supply the PLAN with similar ships, thus working as a “proof of concept” rather than a serious threat to the US Navy.¹⁹ Once the *Fujian* is in service, the PLAN will be experimenting with carrier operations at scale and pace.²⁰

¹⁴ Jon Lake, “China's Stealthy Area Denial,” *Asian Military Review*, March 14, 2023; Sam J. Tangredi, “Anti-Access Strategies in the Pacific: The United States and China,” *The US Army War College Quarterly: Parameters* 49, no. 1 (2019); M. G. Yevtodyeva, “Development of the Chinese A2/AD System in the Context of US–China Relations,” *Herald of the Russian Academy of Sciences* 92, no. 6 (2022): S534–S542.

¹⁵ Lake, “China's Stealthy Area Denial;” Tangredi, “Anti-Access Strategies in the Pacific.”

¹⁶ Lake, “China's Stealthy Area Denial;” Tangredi, “Anti-Access Strategies in the Pacific;” Yevtodyeva, “Development of the Chinese A2/AD System in the Context of US–China Relations.”

¹⁷ Yevtodyeva, “Development of the Chinese A2/AD System in the Context of US–China Relations.”

¹⁸ Liu Xuanzun, “China's Aircraft Carrier Shandong Makes New Breakthroughs in Latest Drills,” *Global Times*, July 30, 2023.

¹⁹ Greg Torode, Eduardo Baptista, and Tim Kelly, “China's Aircraft Carriers Play ‘Theatrical’ Role but Pose Little Threat Yet,” Reuters, May 5, 2023; Xuanzun, “China's Aircraft Carrier Shandong Makes New Breakthroughs in Latest Drills.”

²⁰ Hille, “China's Newest Aircraft Carrier Prepares to Take to the Seas;” Hollings, “China Wants to Dominate the Seas.”

China's plans to invest in nuclear-powered AC in the near future represent a clear commitment to rival US maritime power and the security of American allies in the Indo-Pacific. However, the fact remains that the PRC is still catching up, having had nearly a 90-year lag in carrier development compared to the US. The speculation surrounding a nuclear-powered carrier is tempered by uncertainties regarding China's capability to build and deploy such a vessel. Another critical aspect to consider is the absence of combat experience for Chinese ACs. Unlike the US, China has never utilized its carriers in combat operations. Yet, without directly challenging the US, the PLAN's pursuit of ACs presents a significant concern for neighboring nations. This is because ACs are most effective when deployed against countries with comparatively weaker military capabilities.

Diplomacy, Strategic Alliances, and Partnerships

Strengthening alliances with regional partners—particularly with Japan, South Korea, and Australia—has shaped the US approach in the Indo-Pacific for decades, fostering a collaborative effort to address regional security challenges. Under US leadership, NATO countries—including the UK, Italy, and Romania—have actively intervened in the region, demonstrating their commitment to a defense cooperation framework. Notably, these NATO countries have proclaimed plans to dispatch troops, ships, and aircraft to visit Japan and South Korea.

Cooperative military exercises and information sharing have enhanced regional security efforts. In a collaborative exercise in June 2023, two US ACs—the USS *Nimitz* and USS *Ronald Reagan*—along with their carrier strike groups (CSG), seamlessly operated alongside Japan Maritime Self-Defense Forces (JMSDF) helicopter carrier JS *Izumo*. This joint maneuver also included surface units from Canada and France, creating a multinational maritime presence in the Philippine Sea. Such cooperative endeavors strengthen military interoperability and serve as a tangible demonstration of the commitment of these nations to fostering stability and security in the Indo-Pacific.

Diplomatic efforts have been devoted to addressing regional concerns, promoting stability, and discouraging aggressive behavior through the comprehensive Indo-Pacific Strategy outlined by the current administration. Firstly, the US has engaged in extensive dialogues and partnerships with regional organizations and forums. Second, the US has worked to strengthen alliances, such as the five regional treaty alliances with Australia, Japan, South Korea, the Philippines, and Thailand. Additionally, the US has intensified relationships with leading regional partners, including India, Indonesia, Malaysia, Mongolia, New Zealand, Singapore, Taiwan, Vietnam, and the Pacific Islands.

However, several deficiencies exist in current regional alliances and partnerships. Balancing diverse interests and priorities among alliance members, as well as ensuring a coordinated response and consensus on military strategies, has proved challenging. The US must balance its focus on the Indo-Pacific with other global priorities, considering challenges and obligations in the Middle East, Europe, and beyond.

Forward Deployment and Presence

The US has maintained a visible and persistent presence of ACs in the region—currently, a total of six—to deter the PRC from aggression and reassure American allies. This strategic deployment is primarily overseen by the US 7th Fleet. The fleet plays a pivotal role in supporting a free and open Indo-Pacific, providing joint command in natural disaster or military operations, and operational command of all US naval forces in the region. Notably, 18 of the 50–60 ships typically assigned to the 7th Fleet operate from US facilities in Japan and Guam, representing the

core of American forward presence in the Indo-Pacific. These forward-deployed units, which are seventeen steaming days closer to locations in the region than their counterparts based in the continental US, offer a critical advantage in crisis response capacities.

American AC presence in the Indo-Pacific sends a clear message to the PLA as the US deterrence strategy has been characterized by strategic port visits and freedom of navigation operations (FONOPs). In June 2023, the USS *Ronald Reagan*, part of the 7th Fleet and based in Japan since 2015, pulled into Danang port in Vietnam to celebrate the 10th anniversary of the US-Vietnam partnership. In November 2023, USS *Hopper* asserted navigational rights and freedoms in the South China Sea near the Paracel Islands. In December 2023, AC USS *Carl Vinson*, flagship of CSG 1—embarked with carrier air wing (CVW) 2, cruiser USS *Princeton*, and destroyers USS *Kidd* and USS *Sterett*—arrived in Singapore for a scheduled port visit. By challenging the restrictions on innocent passage imposed by the PRC, these FONOPs upheld the lawful use of the sea as recognized in international law. The PLA responded with an increase in hostile activities, posing a risk to the national security of US allies.

Conclusion

China's strategic investment in ACs represents a significant shift in the regional balance of power, challenging the traditional dominance of the US in maritime affairs and posing a threat to the military capabilities of US allies in the Asia-Pacific region. The development of China's carrier program reflects a calculated departure from previous constraints and a move towards building a larger carrier-based navy, with the aim of enforcing maritime sovereignty and enhancing regional intervention capacity.

As China continues to bolster its naval capabilities and expand its reach, regional actors must recalibrate their strategic calculations to adapt to this evolving security landscape. The implications of China's AC development extend beyond military considerations, influencing diplomatic relations, economic ties, and the overall stability of the Indo-Pacific region. It is imperative for policymakers and analysts to monitor China's naval advancements and their impact on regional security dynamics to effectively navigate the complex geopolitical challenges posed by China's growing influence in the maritime domain.