Dying with Eyes Open or Closed:
The Debate over a Chinese Aircraft Carrier

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Abstract

There is a debate currently going on inside China over the potential benefits and drawbacks to the long-standing Chinese dream of possessing an aircraft carrier. Proponents of a Chinese aircraft carrier—achieved either through foreign procurement or indigenous production—point to such an acquisition as both ensuring China’s ability to defend its territories from foreign aggressors and confirming its status as a global power. They also argue that possession of an aircraft carrier would help secure key sea lines of communication (SLOCs) vital to China’s energy security and trade, while boosting national pride.

However, these arguments are rooted more in nationalism than pragmatism, as a Chinese aircraft carrier would negatively impact China’s security environment in a number of ways. Such a development would no doubt have widespread geopolitical consequences, giving credence to the “China threat” abroad, and increasing tension in Sino-ASEAN and Sino-U.S. relations. Such tension would damage Beijing’s ability to rely on regional support to rein in potential Taiwanese moves toward independence. Additionally, the astronomical cost of such a program would siphon-off key, limited resources that could be better spent, from the Chinese perspective, on other programs of greater immediate necessity. There are also serious questions regarding China’s technical ability to build and maintain many of the necessary components and subsystems vital to an aircraft carrier and its defense.

Despite this, the debate is far from over, and will most likely continue to unfold over the next decade as China accelerates its naval modernization and extends its gaze to the far horizons. The outcome of this debate has the potential to signal China’s future maritime strategy, with implications for the immediate region, the United States, and the world.
Foreign interest in China’s aircraft carrier plans dates back almost as far as the plans themselves. Concerns about China’s possession of an aircraft carrier negatively impacting both East Asian stability and its relationship with the United States—the dominant naval power in the Pacific—are longstanding and have fueled much of the speculation to date. The focus of interested parties has most recently centered on the fate of the Varyag, an incomplete 67,500-ton aircraft carrier purchased from Ukraine in 1998 that reportedly is still sitting in a Dalian shipyard, undergoing upgrades for possible use by the People’s Liberation Army (PLA).1

Such reports, used by some as proof of China’s intense desire to deploy an aircraft carrier at an early date, have rejuvenated the debate in the international community about the status of China’s aircraft carrier program.2 This debate mirrors one that is currently going on inside China over the merits of aircraft carriers themselves. For many years, Chinese military leaders emphasized that the primary task at hand for the PLA Navy (PLAN) was to strengthen its “green water” (i.e. coastal)

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defense capabilities, pushing carrier ambitions onto the backburner. As Chinese naval modernization continues apace, there is now, in both Beijing’s halls of power and the public domain, a renewed examination of the implications, advantages, and disadvantages of a Chinese aircraft carrier. This debate pits those who favor carrier possession for national defense and power projections purposes against those of the Revolution in Military Affairs (RMA) school who argue that such thinking is outdated and that aircraft carriers are, in this age of high-tech weaponry, “floating coffins.”

Yet, the ongoing discussion within China is often fueled more by nationalism than pragmatism, especially among the pro-carrier faction. This point is articulated by the fact China is at least a decade away—if not longer—from being able to deploy an aircraft carrier, a reality that has been overlooked by many media reports on the subject. Despite impassioned calls for the immediate deployment of an aircraft carrier, Beijing’s options in this endeavor—indigenous production or foreign procurement, the ultimate “build or buy” dilemma—are quite limited. China does not presently possess much of the advanced technology necessary to build a carrier and its related support systems, such as anti-aircraft and anti-missile systems. Such an undertaking would take decades to come to fruition, if at all. Conversely, it is highly unlikely that in the current geostrategic climate Beijing would be able to buy an operable carrier on the open market. Furthermore, the carriers that China has purchased over the years for tourist parks or scrap—the Minsk, Kiev, and Varyag—are not capable of being transformed into viable, ocean-faring warfare platforms. The confluence of these realities strongly implies that, barring some drastic change to its security environment, China will most likely continue its moderate-paced aircraft carrier research and development (R&D) program, while studying

how best to defeat such a battle platform in case of a conflict with the United States over Taiwan.\textsuperscript{7}

Despite the methodical nature of this approach, tracking and analyzing China’s internal aircraft carrier debate can yield important clues about the future direction of China’s naval strategy. While military planners have a long-term goal of transforming the PLAN into a “blue water” navy, it is apparent that this goal has been supplanted somewhat by the more immediate need to shore up coastal defense capabilities and bolster the submarine force. Nevertheless, the Chinese Navy, along with leaders in Beijing, have their sights set on the day when China can effectively project power far from its shores in order to secure energy supply lines to fuel its thirsty economy, and if necessary, to resolve outstanding territorial disputes in China’s favor. Therefore, it is important to monitor both the debate itself and technical developments regarding China’s aircraft carrier ambitions. The development of an aircraft carrier was listed by the U.S. Department of Defense as one of a few key indicators of China’s “shift to a broader ‘sea control’ strategy...one that would encompass sea control in water beyond Taiwan and its immediate periphery.”\textsuperscript{8} More broadly, deployment of an aircraft carrier would most likely serve as the crux of Beijing’s “blue water” strategy, a strategy that might very well be viewed in some countries with concern and alarm, and as a challenge to U.S. naval supremacy in the region.

This article seeks to first provide a brief summary of China’s past aircraft carrier-related activities and endeavors to help place the current debate into the proper historical context. It will then list the major argu-

\textsuperscript{7} China’s recent focus on defeating aircraft carriers is highlighted by the July 2004 appointment of two officers with strong backgrounds in anti-aircraft carrier warfare to the position of deputy chiefs of staff of the PLA’s General Staff Department. See, Ching Cheong, “China Revamps Top Military Command,” \textit{Straits Times}, Aug. 10, 2004, in LexisNexis.

ments put forth by those who both support and oppose China’s possession of an aircraft carrier, respectively. Through an evaluation of the points made by both factions, this paper will conclude by arguing that, for China’s leadership and future security environment, the hurdles and drawbacks to its possession of an aircraft carrier far outweigh any of the potential benefits.

China’s Aircraft Carrier Ambitions: An Overview

The ostensible beginning of China’s interest in aircraft carriers dates back over 50 years to 1954, when Liu Huaqing, who would later become commander of the People’s Liberation Army Navy (PLAN, 1982–1988) and vice-chairman of the powerful Central Military Commission (CMC, 1989–1997), started his four years of study under legendary Soviet Admiral Sergei Gorshkov at the Voroshilov Naval Academy in Leningrad. By all accounts, Admiral Liu was heavily influenced by Gorshkov’s views on naval strategy, which emphasized a layered naval defense that also allowed for offensive force projection, and his teachings helped shape Liu’s vision as to how the PLAN should develop. Upon his return to China, Liu Huaqing argued that China’s maritime strategy should be divided into two sequential steps. The first step focused on building up China’s “green water” defense capabilities, enabling the military to protect coastal areas and substantiate territorial claims in nearby areas. The second, subsequent stage was the development of a “blue water” capability that would substantially increase China’s power projection capabilities. It was to fulfill this second step that required China’s possession of aircraft carriers, of which Admiral Liu became the strongest proponent. Indeed, Admiral Liu famously

9 Ian Storey and You Ji, “Chinese Aspirations to Acquire Aircraft-carrier Capability Stall,” Jane’s Intelligence Review, April 1, 2002.
11 Other prominent proponents include former Deputy Commander of the PLAN Vice-Admiral Zhang Xusan, and former Commander of the PLAN
once said, “I will not die with my eyes closed if I do not see a Chinese aircraft carrier in front of me.”

Once Admiral Liu assumed command of the PLAN in 1982, he worked to lay the groundwork for this two-tiered maritime strategy. He initiated a feasibility study at the Navy’s Shanghai Research Institute on aircraft carrier design and construction. In 1985, he ordered the establishment of an aircraft carrier training course for commanders at the Guangzhou Naval Academy. It was his intention to follow the American model by selecting aircraft pilots, as opposed to surface warship captains, to command the carrier battle groups.

In that same year, China’s experience with aircraft carriers received a substantial boost when a Chinese company purchased the 15,000-ton Majestic-class HMAS Melbourne aircraft carrier from Australia. This acquisition aided Chinese aircraft carrier research and development (R&D) in two respects. First, PLA naval architects were on hand to witness and observe the dismantling of the carrier for scrap. From these observations, they were able to draw up blueprints of the vessel. Secondly, the flight deck was specifically kept intact and subsequently utilized by PLAN pilots for carrier take-off and landing training, though these exercises cannot replicate the pitch and roll of a carrier flight deck in the open ocean.

For the next 13 years, the government engaged in numerous discussions and negotiations regarding the potential procurement of foreign aircraft carriers or their designs. Such negotiations were undertaken with companies and governments in Argentina, France, Russia, Spain, and others. See, Jianchuan Zhishi, “PRC Navy Former Deputy Commander Says China Will Possess Aircraft Carrier,” July 11, 2005, FBIS ID: CPP20050713000187; and Chung Chien, “Breaking Through the Encirclement: Chinese Communists Research the Building of Aircraft Carriers,” Taipei Chien-Tuan K'o-Chi, July 1, 2003, FBIS ID: CPP20030827000279. See also Andrew Pinkov, “The Chinese Navy and Russian Aircraft Carriers,” Kanwa Intelligence Review (Nov. 7, 1998), available at http://www.kanwa.com/english/981107c.html.

13 Storey and You, “China’s Aircraft Carrier Ambitions.”
14 Cole, The Great Wall at Sea, p. 108.
and Ukraine, but through the mid-1990s, these discussions had led nowhere.\textsuperscript{15} In China’s overall strategic planning, the aircraft carrier program was not given high priority—nor was the Navy as a whole, for that matter—as for much of the 1980s, Beijing was preoccupied with the land threat posed by the USSR. The 1991 collapse of the Soviet Union allowed leaders in Beijing to focus on other regional contingencies in which increased naval power would play a key role, most notably scenarios involving the South China Sea. This strategic shift gave greater prominence and priority to the aircraft carrier program, highlighted by the successful purchase of two Russian aircraft carriers, the \textit{Minsk} in June 1998 and the \textit{Kiev} in May 2000. Both of these ships have since been turned into highly popular tourist attractions in Shenzhen and Tianjin, respectively, after careful study and examination by naval personnel.\textsuperscript{16}

While the foreign press noted both of these acquisitions with interest, it was the prolonged negotiations and ultimate purchase of the Kuznetsov-class \textit{Varyag} from Ukraine that attracted the greatest scrutiny from the international community. A 2005 article by the Hong Kong-based \textit{Kanwa Defense Review}, in particular, sparked considerable controversy when it reported that the \textit{Varyag}, three years after arriving to China, was still in dock at the Dalian Shipyard and had recently undergone upgrades in preparation for use as a training vessel for “military purpose[s].”\textsuperscript{17} The media attention that followed has prompted a number of conflicting and ultimately inaccurate reports over the status of a Chinese aircraft carrier, with many stating that China’s deployment of an aircraft carrier is imminent or has already occurred. While the current status and ultimate fate of the \textit{Varyag} is still shrouded in mystery, as are many of the details surrounding its purchase, it is clear that the \textit{Varyag} will not become China’s first fully operational aircraft carrier. Most Western analysts agree that at a minimum, refitting the carrier,

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\item \textsuperscript{15} Vijay Sahuja, “Dragon’s Dragonfly,” \textit{Strategic Analysis}, Vol. XXIV, No. 7 (October 2000), available at http://www.idsa-india.org/SAARCHIVES/SA200010/AN-OCT-00-10.HTML.
\item \textsuperscript{16} Ibid.
\end{itemize}
which was 70 percent complete at the time construction ceased in 1992, would be an enormous undertaking, requiring an immense—possibly prohibitively so—amount of resources, technology, and time.\(^\text{18}\) Sitting exposed to the elements in Ukraine for almost a decade without regular maintenance, satellite photos specifically show a great deal of corrosion on its hull and indicate the condition of the vessel overall to be quite poor.\(^\text{19}\) Furthermore, the \textit{Varyag} never received engines, rudders, or weaponry during its stay in Ukraine, while the sensitive technologies that had been installed were destroyed, which reportedly resulted in some damage to the core structure.\(^\text{20}\) Dr. Bernard D. Cole, an expert on the Chinese Navy and himself a former surface warfare officer in the U.S. Navy, states in his authoritative \textit{The Great Wall at Sea} that neither the \textit{Varyag} the \textit{Minsk} nor the \textit{Kiev} “are viable candidates for refitting. As a result of their long periods of inactivity, their hulls and decks must be heavily corroded, their propulsion machinery seriously deteriorated, and their installed weapons and sensor systems, if still installed, beyond repair.”\(^\text{21}\)

Recent reports, based on photographs of the \textit{Varyag} in dry dock at the Dalian Shipyard, do show extensive work being done on the vessel and that it has been repainted with the markings of the Chinese Navy.\(^\text{22}\) In a January 2006 press conference, Taiwan’s Ministry of National Defense displayed 20 satellite photos as corroboration for their claim that the \textit{Varyag} will “actually be used as a training ship in preparation


\(^{21}\) Cole, \textit{The Great Wall at Sea}, p. 108.

for building up an aircraft carrier battle group.”

While China’s plans for the Varyag are far from transparent—it was originally claimed that it would be turned into a floating casino in Macao—using the vessel for limited training purposes is certainly within the realm of possibility, and as time passes and work continues, this becomes increasingly more likely. China’s plans for the Varyag could also mark a more transitional phase in the PLAN’s modernization toward deploying a fully operational aircraft carrier.

Whatever the final outcome of the vessel, the story of the Varyag and its uncertain status have renewed interest in both China’s aircraft carrier ambitions and the internal debate between the pro-carrier faction and the Revolution in Military Affairs (RMA) school. While not having the space to devote serious discussion to the fundamental underpinnings of the RMA school of thought, many of these views were expressed by the government-issued white paper on China’s National Defense in 2004, which made the case that “asymmetrical, non-contiguous and non-linear operations,” under the term “informationalization,” are the keys to future warfare. In that framework, aircraft carriers have little or no utility; a contention hotly contested by believers in the continued utility, even necessity, of aircraft carriers as key platforms in future conflicts.

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23 Wu, “China Developing Aircraft Carrier Battle Group: MND.”
25 “Chinese Navy Repairing Unfinished Aircraft Carrier Varyag” Zhongguo Tongxun She; Chang and Koch, “Is China Building a Carrier?”
Erasing the “Century of Humiliation”—Arguments for a Chinese Aircraft Carrier

Proponents of acquiring or building an aircraft carrier make several arguments in support of such an endeavor. First, they note with disappointment that China is the only permanent member of the U.N. Security Council never to have deployed an aircraft carrier, “a scenario incommensurate with China’s position as a big power.”27 A report by the China Science and Technology Association agreed with this assessment, stating that a China without an “aircraft carrier battle group is a handicap which fails to match China’s status.”28 Additionally, in an open letter of appeal to the Chinese government posted on the Internet, Tong Zeng, president of the China Nongovernmental Federation for Defending Diaoyu Islands (CNFDDI), in characterizing the 21st Century “a blue century,” stated that China’s lack of an aircraft carrier “cannot but be called a disgrace to China.”29

Further compounding the situation is the reality that China’s main regional rival, India, agreed in December 1998 to buy from the Russian government the last of the Kiev-class carriers, the Admiral Gorshkov. Highlighting the government’s view of this deal and the need for further power projection capabilities, General Zhao Nanqi, then-Director of the General Logistics Department of the PLA, said in 1993 that China “can no longer accept the Indian Ocean as only an ocean of the Indians.”30 How, aircraft carrier proponents ask, can China be viewed as a regional power when it is forced to look “with envy on the carriers of Thailand and India?”31

China’s regional aspirations would be substantially enhanced by the deployment of an aircraft carrier, it is reasoned, by allowing the military to project forwardly both its naval and air power into key areas, such as the East China Sea, the South China Sea, and the Straits

28 Quoted in Sakhuja, “Dragon’s Dragonfly.”
30 Quoted in Sakhuja, “Dragon’s Dragonfly.”
31 Shambaugh, Modernizing China’s Military, p. 270.

> With its present force structure, Chinese surface combatants would have difficulty projecting power into the Strait of Malacca, especially if it were conducting simultaneous blockade or invasion operations elsewhere. Similarly, although the PLA Navy occasionally patrols as far as the Spratly Islands, its limited organic air defense capability leaves surface ships vulnerable to attack from hostile air and naval forces. The PLA Navy Air Force and PLA Air Force currently lack the operational range to support PLA Navy operations.”

Currently, Chinese forces cannot be confident of securing an area more than 500 nautical miles (926 kilometers) from the mainland.33 Given that the heart of the South China Sea lies approximately 1,500 kilometers from the southern coast of China and the Straits of Malacca even further, these distances severely limit China’s ability to control the air, something that Admiral Liu was keenly aware of and one of the main reasons he pushed so aggressively for aircraft carriers.34 Despite advances in China’s aerial refueling capabilities, problems still persist and it is not clear how tanker aircraft are to be protected except by fighters from aircraft carriers.35 Proponents of an aircraft carrier have noted that “history has proved time and again [that] without air domination . . . there will be no control over the seas . . . [and] whether or

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not to have an aircraft carrier is . . . whether to have air control over the seas and whether to become a sea power.” 36 Additionally, it has been argued that the PLAN “only needs one such task force to control the entire sea and air space around the Spratly Islands.” 37 Taking into consideration a conflict over Taiwan, which lies just 160 kilometers from Chinese shores, it is assessed that currently the PLAN would have considerable trouble ensuring air control over the seas 270 kilometers off the eastern coast of Taiwan. 38 However, with a carrier operating to the east of Taiwan, it is possible that two fronts of attack could be opened against the island’s air defense forces. 39

The concept of air control leading to sea control and increased power projection capabilities is especially important in light of recent economic developments in China, proponents argue. Since 1993, China has been a net importer of oil and currently imports over 40 percent of its oil, making it the world’s third largest oil importer and second largest oil consumer. 40 Of this oil, more than 80 percent travels through the vulnerable Straits of Malacca, prompting Chinese President Hu Jintao in 2003 to term this China’s “Malacca Dilemma.” 41 As China’s need for oil continues to increase, its dependence on these sea lines of communication (SLOCs) to fuel its insatiable economy will only grow. Mikkal

38 Jiang, “Challenges Facing China’s Navy, Part II.”
39 Cole, The Great Wall at Sea, pp. 146–47.
Herberg, Director of the Asian Energy Security Program at the National Bureau of Asian Research, estimates that by 2030, imports will account for up to 80 percent of China’s total oil consumption, which will surge to almost 11 million barrels per day from 2 million barrels per day in 2002. Demand for and production of cars is expected to follow a similar upward trajectory, as projections indicate that by 2010, China will have 56 million private automobiles, and by 2020, that total will reach 130 million, compared with 24 million in 2003. If these predictions prove true, the oil consumed by the transportation sector will account for over half of China’s total oil consumed in 2020. An increasing amount of that imported oil will travel by tanker through the Indian Ocean and the South China Sea, where U.S. naval dominance magnifies Chinese feelings of energy insecurity and vulnerability.

Additionally, over 91.5 percent of China’s foreign trade goods are transported by sea, underscoring the vital importance of open sea-based trade for the country’s continued economic growth. By 2000, it was estimated that approximately 27 percent of China’s total trade passed through SLOCs in Southeast Asia. However, the PLA Navy currently does not have the capability “of maintaining an even presence, let alone control, along such widely flung SLOCs.” Even a Taiwanese professor concluded that to protect the long oil supply from the Middle East to Chinese ports, China’s “only option is to build aircraft carrier battle groups.”

Proponents further argue that by projecting power into the region through the deployment of aircraft carriers, it would be possible to

42 Herberg, “The Emergence of China Throughout Asia.”
44 Herberg, “The Emergence of China Throughout Asia.”
secure natural resources and substantiate territorial claims in the South China Sea that could potentially help China in its quest for energy security. It should be noted that Chinese estimates of the potential oil and natural gas reserves in the South China Sea have been described as “optimistic” and are often twice or three times higher than estimates of non-Chinese analysts. Nevertheless, with mid-range estimates of seven billion barrels of proven oil reserves and 150 trillion cubic feet of proven natural gas reserves in the region, along with China’s growing feelings of energy insecurity, the relatively untapped natural resources of the South China Sea will continue to provide proponents of a Chinese aircraft carrier with an attractive argument to bolster their case.

While aircraft carriers are presented as ensuring open trade and energy security, proponents also point to benefits for the Chinese economy as well. More generally, constructing such a large vessel could potentially generate additional jobs in China’s shipbuilding industry, already the third largest in the world behind Japan and South Korea. Additionally, construction of aircraft carriers in China would potentially spark an increase in naval technology spending, specifically with respect to related R&D programs, such as early warning and “electronic counter-measure technology,” anti-aircraft and anti-missile systems, and advanced command and control, communications, computers and intelligence (C4I) systems.

Generating public support and national pride are cited as two of the potential domestic benefits for the Chinese government, specifically for the Chinese Communist Party. The 2002 circumnavigation of the globe by the PLA Navy received much attention from the Chinese media—the People’s Daily went so far as to say, “The 506 officers and


soldiers have fulfilled the thousand-year-old dream of the Chinese nation.”51 This type of media response lends credence to arguments that naval modernization “has an important propaganda value in terms of Chinese national pride” that can shore up support for a one-party system that is facing increasing domestic unrest at home.52 More specifically, polls consistently show that a strong majority of Chinese—some as high as 87 percent of those polled—support the idea of a Chinese aircraft carrier.53 In appealing to Chinese nationalism, always a potent force, aircraft carrier proponents claim that possession of a Chinese aircraft carrier would go a long way toward erasing the “Century of Humiliation” (1842–1949) from the collective minds of the Chinese people.

The Utility of a “Floating Coffin”—Arguments Against a Chinese Aircraft Carrier

Conversely, opponents of a Chinese aircraft carrier argue that there are a number of daunting challenges that severely undermine the benefits of building/buying, and ultimately deploying, an aircraft carrier. Among those, the technical, geopolitical, and financial hurdles and drawbacks are featured most prominently. Independent evaluation of these arguments show them to be more rooted in pragmatism than nationalism, unlike those posited by aircraft carrier proponents who seem to rely heavily on feelings of national pride and insecurity. In acknowledging many of the negative aspects of a Chinese aircraft carrier, many opponents—especially those subscribing to the RMA school of thought—instead favor a more asymmetrical approach toward U.S. military dominance—both in the region and beyond—that emphasizes

52 John Hill, “China’s Naval Development Focuses on Taiwan,” Jane’s Intelligence Review, June 1, 2003.
network-centric capabilities instead of platform-centric alternatives.

Of the challenges listed above, technological limitations pose the greatest hurdles to any Chinese aircraft carrier ambitions. In general, China’s shipbuilding industry has made great strides over the past 10 years, however, as pointed out by Tai Ming Cheung, an expert on China’s defense industry:

The Chinese shipbuilding industry still has a long way to go to reach the technological and manufacturing levels of its international rivals. Most of the naval hardware being produced is at least one or two generations behind their counterparts in the West. Chinese shipbuilders are also 5 to 20 times less efficient and profitable than Japanese and South Korean shipyards.54

More specifically, while it is true that China can construct ships over 100,000 tons, opponents correctly point out that aircraft carriers require a great deal of specific advanced technology, which China does not currently possess. The vice-chairman of the Jiangnan Shipyard, Huang Ping, may have admitted as much when he stated in July 2005 that while “we have the ability to build the hull . . . an aircraft carrier involves many different problems, not just the hull. We still don’t have enough hardware qualifications.”55 For example, the USSR encountered much difficulty in developing arrester wires, elevators, and steam catapults, technologies that are all vital to the operation of a carrier.56 Further complicating the matter, many of these complex technologies are very difficult to acquire on the international market, especially in light of the continued EU arms embargo against China and the inevitability of strong U.S. political opposition to such sales.57 It is possible, however,

that China tried to bypass the market, given the implications of recent allegations against a defense contractor, Chi Mak, for passing along U.S. naval technology to China, including information on a new magnet-based launch system for carriers.\textsuperscript{58}

Maintenance is also a key concern, though one that is most often raised by analysts outside of China. To care for this highly specialized technology requires extensive training of a large amount of technicians, both civilian and military.\textsuperscript{59} Given the problems China has experienced maintaining its submarine fleet, the lack of training is a serious hurdle that poses short-term problems with only long-term solutions, since developing the institutional capacity to train competent personnel requires a significant amount of time.

With the continued advances in precision-guided munitions (PGMs), many observers note that a carrier also needs to have advanced capabilities to protect itself from an attack by hostile actors. Anti-aircraft and anti-missile systems constitute the key components of any carrier defense system, highlighting the absolute necessity of possessing early warning, radar and electronic countermeasure technology.\textsuperscript{60} To date, China has had to rely on foreign procurement for these technologies, as its production capabilities in this area are still quite limited. Even with foreign supplied technology, effectively integrating the various systems—already a problem in the PLAN for indigenously produced advanced technology—is extremely difficult, posing new hurdles to improving Chinese naval capabilities.\textsuperscript{61} Reflecting the true nature of the conundrum is the realization that without such advanced technology, a Chinese aircraft carrier would indeed be a “floating coffin.”\textsuperscript{62}


\textsuperscript{59} Ross, “Assessing the China Threat.” This point is also raised by a Taiwanese defense official, quoted in Brian Hsu, “Taiwan ‘Keeping Close Eye’ on PRC Aircraft Carrier,” \textit{Taipei Times}, Oct. 21, 2001, FBIS ID: CPP20011029000165.

\textsuperscript{60} Lin, “Why Does China Still Have no Aircraft Carrier”; Storey and You, “China’s Aircraft Carrier Ambitions.”

As part of a carrier’s overall defense, the vessels do not travel alone. Instead, they form the center of an aircraft carrier battle group (CVBG) that also includes anti-submarine escorts such as destroyers, submarines, and frigates, as well as tankers (for other ships in the group if a Chinese carrier, as speculated, would be nuclear powered) and replenishment vessels. One sobering estimate is that even if the PLAN were to use every advanced vessel in its fleet, only one such carrier battle group could be formed, a scenario that would make China’s coastal defense less secure against foreign forces by concentrating them into a single battle group.

Coupled with the abovementioned technological concerns are observations that China would also need to invest heavily in carrier-capable aircraft, such as vertical take-off and landing (VTOL) aircraft like the British Sea Harrier or the Russian Yak-38. However, in light of the EU arms embargo and inevitable political pressure from the United States, the UK is unlikely to sell their Harriers to China, nor are other countries who already possess them—India, Spain, and the United States—likely to sell these “jump jets” secondhand. Furthermore, the production of the Russian Yak-38 has been discontinued. Articulating many of the technical hurdles to China’s potential carrier plans, this strategic reality would leave China with the problematic option of indigenously producing a technology that it does not currently possess and to which it has limited access.

Compounding these technological problems further is widely accepted naval doctrine that recognizes only the possession of at least two, though preferably three, aircraft carrier battle groups as sufficient to ensure operational status for one group at any given time. A strategy employed most notably by the United States, it estimates that for every three aircraft carriers, one will be in refit, one will be in training, and one will be operationally deployed. Therefore, China would need “at least three carriers to guarantee one in battle array” at any given time.

62 Lin, “Why Does China Still Have no Aircraft Carrier?”
64 Shambaugh, *Modernizing China’s Military*, p. 271.
65 Storey and You, “China’s Aircraft Carrier Ambitions.”
This would have the further effect of tripling the already high cost of acquiring an aircraft carrier. In the 1980s, Chinese analysts estimated that the absolute minimum cost of building a single carrier, “even by cheap Chinese standards,” would be over 4 billion to 4.5 billion renminbi (US$484 to US$544 million). This figure has been described as “astronomical” because such estimates neither include aircraft and electronic warfare systems, nor daily maintenance—expenses that would at least double the total overall cost of the project. Moreover, it is highly likely that the actual cost of building a carrier would be even more as, by way of comparison, the British Royal Navy is expected to spend US$2.5 billion each on two, 50,000-metric ton, conventionally powered aircraft carriers, not including aircraft. Using China’s publicly stated defense budget for 2004 of US$27 billion, the cost of building one such British carrier would represent just under 10 percent of China’s total defense spending. While outside sources estimate China’s actual military expenditure to be two to three times higher, such an undertaking would still constitute a significant amount of China’s overall military spending.

To acquire a carrier would potentially cost just as much, if not more. The most widely cited comparison is India’s purchase of the Admiral Gorshkov from Russia, which is expected to cost US$2 billion just for the refit and necessary aircraft, as the carrier itself was free under the condition that the maintenance work would be done at a Russian shipyard. With these high costs in mind, Professor Zhang

66 Li, “Why China Chooses Not to Build Aircraft Carrier?”
67 You, The Armed Forces of China, p. 198; and Sahuja, “Dragon’s Dragonfly.”
69 Lague, “An Aircraft Carrier for China?”
70 The State Council-issued China’s National Defense in 2004 lists China’s 2004 defense budget as “211.701 billion yuan.”
72 Storey and You, “China’s Aircraft Carrier Ambitions.”
Zhaozhong, a military expert at China’s National Defense University in Beijing, stated that “even if [China’s] army did not eat, buy new clothing or equipment for six to seven years, we would still not be able to afford one Nimitz.” A U.S. Naval Attache to China said that senior PLAN officials have indicated that the substantial price tag of acquiring and then maintaining a carrier has proven to be “prohibitive.” Additionally, construction of naval bases able to berth such a large vessel would have to undertaken as well, “adding to the already expensive bill.”

A key follow-up question is, where would this money come from? Given China’s relatively limited defense budget, there would undoubtedly be a budget crunch. This situation would be further compounded by the fact that historically the PLAN has been budgetarily dominated by the land forces, and within the PLAN, “the different naval arms . . . compete with each other for budget resources.” Under this scenario, Chinese military planners would then have to siphon off limited funds from other PLAN projects that have greater immediate utility for Chinese forces, like additional diesel submarines and destroyers, anti-submarine warfare (ASW) technologies, anti-ship cruise missiles, and ballistic missiles with maneuverable (MARV) warheads. From a Chinese tactical standpoint, it would seem foolhardy to sacrifice so much of the progress the PLA Navy has made to date, given that many of the

75 Storey and You, “Chinese Aspirations to Acquire Aircraft-carrier Capability Stall.”
77 Chang and Koch, “Is China Building a Carrier?”
abovementioned technologies and platforms would constitute a significant potential threat to America’s use of aircraft carriers in a conflict over Taiwan.

It is just such a conflict that has been recognized by both the United States and China as the most likely way for these two countries to be drawn into a shooting war. While it can be assumed that America’s aircraft carriers would play a significant role in their war fighting strategy, many observers argue that a Chinese aircraft carrier would have limited utility in sea denial and sea control operations. They make a number of points in support of this contention. First of all, given its close proximity to the Chinese mainland, PLA Air Force land-based aircraft would be able to assert some level of air control over major parts of Taiwan and the Taiwan Strait. Secondly, they argue that China’s substantial arsenal of short-range ballistic missiles (DF-11 and DF-15) based in coastal Fujian and Zhejiang Provinces along with an increasingly advanced cruise missile arsenal provide the mainland with a credible threat towards Taiwan in the event conflict escalation. Also, because the almost certain use by the United States of GPS-guided PGMs and other advanced technology, coupled with China’s anti-missile and anti-aircraft limitations, a painful but realistic assessment is that “no Chinese carrier could survive the first few days of [a] war” with the United States. Moreover, one expert on the PLAN has assessed that in a conflict over Taiwan, a Chinese carrier would inherently represent “so much political capital for Beijing” that it would have no choice but to protect it at all costs, presenting “the PLAN with more of a burden . . . than a[n] advantage.”

In light of such a scenario, China would need to rely heavily on its regional neighbors for political support in their quest to prevent Taiwanese independence. Such support could be crucial in convincing Taipei to de-escalate its rhetoric, to deter any moves towards de jure independence, and to impose conditions and limitations on Washing-

79 Storey and You, “Chinese Aspirations to Acquire Aircraft-carrier Capability Stall.”
80 You, “The Debate over China’s Aircraft Carrier Program.”
ton’s use of force.\(^2\) However, the very act of deploying an aircraft carri-
er would severely strain relations with many regional neighbors and allies, especially Japan, Australia, and members-states in the Association of Southeast Asian Nations (ASEAN). The five other states that claim whole or partial territorial rights over the Spratly Islands are all members of ASEAN and would certainly view Chinese deployment of an aircraft carrier as an offensive move by Beijing to back up its claims with force.\(^3\) This would most likely cause many of them to strengthen their military ties with the United States, ensuring a continued U.S. naval presence in the region for the foreseeable future.\(^4\) Such a sequence of events would be most undesirable for China, given the recent emphasis it has placed on enhancing ties with its ASEAN neighbors, often at Washington’s expense.

The geopolitical impact would not be limited to Southeast Asia, however. Some argue that Japan, a country that views much of China’s military modernization effort with concern, would most likely respond by starting a carrier program of its own.\(^5\) Unlike China, however, Japanese options for buying foreign-supplied vessels and aircraft, particularly from the United States, remain wide open. Additionally, Japan has openly predicated its economic development aid to Beijing on China not pursuing the construction of an aircraft carrier.\(^6\) While the reaction of South Korea is harder to predict, it is possible that China’s deployment of a carrier could potentially speed up any plans by Seoul to acquire its own aircraft carrier. Such a scenario could act as a “catalyst in the carrier acquisition race” possibly increasing interest in Indonesia, Malaysia and the Philippines.\(^7\) An unnamed PLAN expert

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\(^2\) You, “The Debate over China’s Aircraft Carrier Program.”
\(^3\) Nations claiming whole ownership of the Spratly Islands are China, Taiwan, and Vietnam. Nations claiming partial ownership of the Spratly Islands are Brunei, Malaysia, and the Philippines. See, Storey and You, “China’s Aircraft Carrier Ambitions.”
\(^4\) Lin, “Why Does China Still Have no Aircraft Carrier?”
\(^5\) Storey and You, “China’s Aircraft Carrier Ambitions.”
\(^7\) Sakhuja, “Dragon’s Dragonfly.” Ironically, the official paper of the Chinese Communist Party’s Central Committee, People’s Daily, carried a comment on South Korea’s launching of its light aircraft carrier, the Dokdo, saying that it
in China concurred, stating that “it is chiefly because of political reasons that China chooses not to build [an] aircraft carrier. . . . Some neighboring countries are on their guard against ours [sic] defense forces while a stable neighboring environment is of critical importance to China as a country focusing on developing [its] economy. In this sense, not to build [an] aircraft carrier is a correct decision for China at the current stage.”88

A final geopolitical impact is the weight that it would lend to “China threat” theorists abroad, severely undermining Beijing’s claims of a “peaceful rise.” Aircraft carriers are, by their very nature, offensive military platforms, and while China could attempt to reassure the world as such, like-minded observers note that there are already many people who already question China’s motives and intentions. As Lin Limin, director of the Strategy Center at the China Institutes of Contemporary International Relations wrote: “when quite a few countries harbor misgivings about China’s rapid development and the ‘China threat theory’ still finds a market, there is even less need for China to rush to get a flashy, but insubstantial aircraft carrier with many political drawbacks and few political benefits.”89

**Conclusion**

Despite the passion on both sides of this debate—or because of it—the dichotomy in China over the utility of aircraft carriers will continue in some form or another for the indefinite future. As China continues to grow militarily and economically, and as its resource dependence intensifies its reliance on vulnerable sea lanes, new arguments on both sides will emerge, while old ones are given more weight or rendered moot. Changes in China’s security environment, especially vis-à-vis

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88 Li, “Why China Chooses Not to Build Aircraft Carrier?”
Taiwan and the United States, will undoubtedly push the debate in one direction or another.

Taking notice of which way the pendulum has swung, who the key players are, and whether such movements are fleeting or more permanent are important indicators about future behavioral patterns and, more specifically, China’s naval posture and plans for the region. Read correctly, these clues can provide both China and concerned parties the forewarning and opportunity to ensure that such plans do not undermine Beijing’s intentions of a “peaceful rise” and instead promote China’s further integration into the global community of nations. For, regardless of the outcome, the implications inherently involved in China’s aircraft carrier debate are of as much importance to the international community as they are to China.