On 7 December 2009, the United States commemorated the 68th anniversary of the Japanese attack on Pearl Harbor. This attack not only drew the U.S. into World War II, it also marked the beginning of the modern era of naval warfare, in which aircraft carriers are essential for force projection. While Japan subsided as a military power after its defeat in World War II, its neighbor across the sea, China, has been steadily building its military capabilities over the past sixty years and more recently seeking to bolster its economic growth with increased international military (and consequently diplomatic) power. However, as a legacy of China’s historical focus on internal control, the Chinese People’s Liberation Army Navy (PLAN) has consistently lagged behind its land-based counterpart in investment and capabilities.

This appears to be changing, though, as China has recognized the need for improved global force projection due to the economic interests it has cultivated throughout the world over the past two decades. Expansions in submarine and general warship forces are planned, but the centerpiece of China’s naval strategy is the deployment of an aircraft carrier fleet. It appears that China plans to domestically build its own carriers, which means it will be several years before any carrier would be operational. In order that its pilots may be immediately ready for carrier flights at the time the ships are complete, China requires an existing aircraft carrier for naval aviation training. For this purpose, China has turned to a seemingly unlikely source: Brazil.

Currently only four countries possess aircraft carriers able to both launch and recover conventional fixed-wing aircraft: Brazil, France, Russia, and the United States. European Union regulations prohibit France from allowing Chinese personnel to train on its ships; Russia is on rocky terms with China over allegations that the Chinese have illegally copied fighter jet technology, and so the Russian military is wary of any military cooperation with China in the near future that might expose technical data; and the United States views China as an aspirant to superpower status and a threat to its global military supremacy, especially in Asia and with particular concern for Taiwan. This left Brazil, China’s partner in the BRIC (Brazil, Russia, India and China) group, as the only option.

Brazil purchased the French *Clemenceau*-class carrier *Foch* in 2000 and renamed it the *São Paulo*. The ship, built
in 1957, was acquired to replace the Minas Gerais, a former World War II-era British carrier that was commissioned by the Brazilian navy in 1960. Since it was acquired by Brazil, the São Paulo has been used mainly for training and carrier qualification for Brazilian pilots, as well as Argentine pilots through a cooperative agreement. The carrier undertook regular operations until 2005, when a rupture of a high pressure steam pipe caused three deaths and eight injuries and led the Brazilian navy to put the ship into dry dock for maintenance ahead of schedule. Since then, the São Paulo has been inactive, undergoing routine maintenance and troubleshooting, as well as significant equipment upgrades to replace aging parts, and its aircraft fleet has been upgraded, too. Following this work, the São Paulo should be fully operational in the new decade, ready for use by not only Brazilian, but also Chinese pilots.

The plans for cooperation between Brazil and China on naval aviation were first revealed by Brazilian Defense Minister Nelson Jobim in an interview in early May 2009 with Brazilian defense news web site Defesa@Net. In a discussion of strengthening security ties with China, Jobim said China wanted to build up its currently weak naval forces, and one of its priorities was carrier training, for which it needed Brazilian assistance. According to Jobim, “the Chinese are acquiring aircraft carriers to project power in their region”, which he asserted was a different reason than that for which Brazil had acquired its own carrier, the São Paulo.

Jobim’s statements came on the heels of a visit to China by Brazil’s top naval commander, Admiral Júlio Soares de Moura Neto, who attended China’s 2009 fleet review, and issued a statement of congratulations to Chinese President Hu Jintao on the occasion of the 60th anniversary of the PLAN’s formation. Later in May, after Jobim’s interview, Brazilian President Luiz Inácio “Lula” da Silva made an official visit to China, during which plans for carrier training cooperation were solidified, and an agreement was also put in place to jointly launch three satellites by 2013.

China’s plans to begin training its pilots for aircraft carrier takeoffs and landings serve as the latest and most concrete piece of evidence that China is coming close to conclusion of its long quest to have an operational aircraft carrier fleet, something alluded to by Chinese Defense Minister Liang Guanglie in March 2009, when he told his Japanese counterpart that “we need to develop an aircraft carrier”. China has been trying for decades to gain the technological expertise necessary to build such a large and complex ship as an aircraft carrier for close to three decades, and now appears to be on the verge of succeeding.

Beginning in 1985, with its purchase of the Australian carrier HMAS Melbourne, China has made a habit of buying old carriers in order to study their engineering and design principles as models for future construction. The breakup of the Soviet Union afforded further opportunities to poach technology, and China has done just this, purchasing the carriers Varyag, Minsk, and Kiev. None of these carriers has been operational, but they have given China valuable insights into the inner workings of aircraft carriers and the structural and mechanical engineering necessary for such a ship. With this knowledge in hand, China has either already begun, or will soon begin construction of its own carriers, expected to be similar to the 67,500 ton Admiral Kuznetsov-class Varyag.

While numerous countries other than the four previously mentioned operate aircraft carriers, they were not considered suitable by China due to the aircraft launch and recovery systems they use. Brazil presented an ideal partner for China because the São Paulo operates on a Catapult Assisted Take Off But Arrested Recovery (CATOBAR) system to launch and recover aircraft, which is the system China would like to use on its own future carriers. The other system used on aircraft carriers, Short Take-Off and Vertical Landing (STOVL), does not require as large a carrier deck, but necessitates the use of special aircraft, like the British Harrier jet, which would have represented another technical hurdle for China to clear on its way to carrier operations. With a CATOBAR system, China would be able to use aircraft based on the Russian Sukhoi Su-33, the jet whose technology it was recently accused of stealing.

The benefits to China from the development of aircraft carrier capabilities are clear. Beyond the increased...
respect it would be accorded, deployment of carriers would be another step forward in China’s project to build and protect its ever-expanding global economic and political influence. China has become the most prominent, as well as the most controversial, overseas investment partner for countries in the developing world over the past decade, investing hundreds of billions of Euros mainly in agriculture and natural resources, but also in sectors such as manufacturing, real estate, and infrastructure. The true extent of Chinese overseas investment is difficult to determine due to the government’s lack of transparency and uncertainty as to which Chinese corporations are private and which are state-controlled, but regardless of the exact amount of investment, China’s national interest has undeniably expanded far beyond its borders.

As it invests in Africa, Latin America, and elsewhere in Asia, China wants to ensure the security of its wealth, an issue of particular concern given that much of China’s ascendance as a global economic player is due to its willingness to invest in unstable and repressive countries, such as Sudan. As much of China’s investment has been in extractable resources and agricultural commodities to provide for the needs of its huge population, maritime transport of goods has necessitated a reexamination of China’s sea lines of communication (SLOCs), especially for the energy sector. Energy is China’s most critical import, as the country is now the world’s second-largest petroleum consumer behind the U.S., and only has enough domestic production to meet about half its energy needs.

According to the Energy Information Administration of the U.S. Department of Energy, China was projected to account for almost one-third of the global growth in oil consumption between 2008 and 2010, while its domestic production has remained flat. This means increased oil imports are necessary and demand will likely grow even further as development brings more Chinese closer to energy-intensive Western standards of living. Currently, the majority of Chinese oil imports come from the Middle East, though an increasing share is coming from African countries such as Angola. However, in order to reach China, the oil must travel thousands of kilometers by tanker through some of the most treacherous regions of the ocean.

Oil coming from the Middle East must first travel through the Gulf of Aden or Persian Gulf and then out of the Arabian Sea. Then 80% of China’s oil imports, from both the Middle East and Africa, transit the Strait of Malacca between Indonesia and Malaysia, before traveling through the South China Sea to their destination. These sea routes, though, pass through the hotbeds of modern-day piracy. As multiple Chinese ships have been attacked and held for ransom off the coast of Somalia, China has begun to maintain a flotilla of two warships and a supply ship in the Gulf of Aden to protect its interests and assist the international anti-piracy task force in the area. China has signaled an interest in increasing its presence in the region, with Rear Admiral Yin Zhou suggesting in an interview in December 2009 that the Chinese may seek to establish naval supply bases in nearby countries.

While it is unlikely that China would be willing to commit an aircraft carrier to the region very soon after it became operational, it might be compelled to do so if pirates continue to disrupt its SLOCs. The continued effectiveness of pirates in spite of increased international attention and attempts at military disruption has highlighted the difficulties of patrolling such a large area, even with the current helicopter forces present. A full carrier aviation group would aid immensely in surveillance and possibly enable the detection and destruction of pirates’ so-called ‘mother ships’ from which attack boats are launched.

In addition to the protection of Chinese investments abroad, aircraft carrier capabilities would enable China to wage a more aggressive foreign policy in East and Southeast Asia. Chinese military officials maintain that...
The most significant of China’s contested sovereignty claims, that of Taiwan, would likewise be greatly impacted by the launch of a Chinese aircraft carrier. (Coincidentally, Brazil does not recognize Taiwan’s independence.) Taiwan has its own highly-advanced military, which has been constructed with defense against an invasion from mainland China in mind. However, during previous periods of tension, Taiwan has benefitted from U.S. intervention on its behalf, particularly in 1996, when, in the run-up to Taiwan’s presidential election, the U.S. sent two aircraft carrier battle groups to Taiwan to counter Chinese threats of military action against the island. Increased American economic reliance on China aside, a Chinese aircraft carrier might raise the stakes enough to make the U.S. forsake its military support of Taiwan in the event of another crisis.

Clearly, China has much to gain from the deployment of one or more aircraft carriers, and anything that can hasten this process, such as Brazilian aid in the training of pilots for carrier missions, is in China’s interest. What Brazil stands to gain from the agreement is less immediately apparent. For Brazil, like China, there is an element of prestige involved. While China may not yet have arrived at true superpower status, its global influence today is second only to the U.S., and having such a powerful country request Brazilian assistance is a great boost to the Brazilian ego and to Brazil’s own aspirations to be recognized as an international, rather than just regional, power.

Brazil has been among the loudest proponents of an expansion of the United Nations Security Council, arguing for its own inclusion in the body as a veto-holding permanent member. Brazil jointly proposed with Germany, India, and Japan in 2005 that they and two African countries (likely Nigeria and South Africa) in the face of this Indian fleet buildup, it would be critical for China to have one or more aircraft carriers to make a show of force in the event of a crisis of relations between the two countries.
Africa) be granted permanent membership and veto status on the Security Council as part of an expansion of the Council to 25 members. This proposal failed, but Brazil has continued to press its case and to add new dimensions to its foreign policy in an effort to showcase its abilities and influence. This has included Brazil’s leadership of the United Nations Stabilization Mission in Haiti (MINUSTAH) and Lula’s recent forays into Middle East diplomacy. If Brazil is to succeed in gaining a seat on the Security Council, China is a powerful and crucial ally to have.

From a military perspective, while no concrete plans have been revealed, there has been speculation that China’s half of the bargain will involve assisting Brazil with the construction of nuclear submarines. Brazil has harbored ambitions to build a nuclear submarine since the late 1970s, but the project has been brought to the fore again under Lula’s tenure, with the President announcing in 2007 new funding for a nuclear submarine. The benefits of a nuclear submarine for Brazil would be mainly grand strategic, providing further evidence of the country’s ascension of the global ladder of power and a deterrent against foreign interference in its waters. A nuclear submarine fleet would also open up the possibility for greater power projection in Latin America and the Caribbean, or even toward Africa in support of Brazil’s allies in the Community of Portuguese Speaking Countries (CPLP).

On a more practical level, Brazilian officials have suggested that a nuclear submarine would aid in the protection of Brazil’s vast offshore oil reserves, which will become more valuable as global energy demand increases and oil reserves are depleted. However, as defense analyst Paul Taylor pointed out in the magazine of the U.S. Naval Institute, submarines are poorly suited for the defense of offshore oil platforms and thus the significance of a nuclear submarine would largely be in deterring other countries from encroaching on Brazilian waters and preventing spillover from any conflicts that might erupt in the region, for instance if tensions between Colombia and Venezuela were to escalate.

Improved naval ties with China could also prove useful to Brazil in the Pacific Ocean. As Brazil pushes forward infrastructure development to realize the longstanding dream of connecting the Pacific and Atlantic Oceans through the Amazon, the country will be more directly linked to the Pacific and East Asia. However, Brazil’s navy could find it difficult to protect its Pacific SLOCs, even with a nuclear submarine, an area where a Chinese Navy with increased force projection capabilities could be very helpful.

In the short term, it appears that Brazil will mainly gain international prestige and pride from the aircraft carrier flight training agreement, as well as closer relations with China, while the Chinese will receive the more tangible benefit of a shorter timetable for beginning naval aviation operations once the construction of an aircraft carrier is completed. In the long run, however, Brazil may be the big winner if its assistance to China results in increased Chinese pressure for Brazil’s inclusion as a permanent member of the U.N. Security Council. Regardless of the long-term outcomes, the agreement provides a clear signal to the world that the global balance of power is shifting not only economically, but also militarily, as the large emerging countries of the BRIC group seek to translate fiscal power into force projection capabilities.