**China’s Naval Modernization and Its Impacts on the South China Seas[[1]](#footnote-1)**

Alexander C. Tan

Department of Political Science

School of Social and Political Sciences

University of Canterbury

Christchurch, New Zealand

**Introduction**

The story of China’s rapid economic growth and development is one of the most documented subjects in the last twenty years. This rapid transformation has piqued the interest of economist and political scientist wanting to understand how the models used to explain the rapid rise of countries such as Japan, Korea, Taiwan and other emerging economies fit into the transformation of China. Yet, because of the sheer size of China’s economy, the impact of its rapid growth has been felt not only regionally but also globally. Indeed, without China’s continued economic growth during and after the 2008 Global Financial Crisis arguably regional economies would be much worse off as China was able to provide some shelter from the drop in demand in Europe and the United States. In many ways, the coincidence of events made the year 2008 the ‘coming out’ party for China as it steps into a more prominent role in global economic affairs.

As China’s economic role increases its own confidence in engaging in global affairs also rises. Like most, if not all, major powers in the past, China’s attention has slowly but surely turned to its national security and in particular in its military. In the past two decades alone, China’s military has experienced continued increases in its budget. With more readily available funds, China’s People’s Liberation Army (PLA) has embarked on massive upgrade and modernization of its forces and equipment. Today, it is the second top defense spender next to the United States.[[2]](#footnote-2) Naturally, this phenomenon has not been lost on security and defense observers. So much has been written about the PLA’s modernization and in particular PLA Navy’s (PLAN) desire to be a blue-water navy that the United States is rebalancing its forces to Asia. Indeed a virtual cottage industry has spawned as officials, scholars, and other experts scramble to understand what the implications of the PLA Navy’s modernization to the global and regional security environment.

In this paper, I will examine and discuss what are some of the implications of PLAN’s modernization to the security environment in the South China Seas. To do so, in the next section I briefly survey the rationale for China’s naval modernization. Following that brief survey I will highlight some of the modernization efforts of the PLA Navy and in particular provide statistics of the past, current, and projected force structure. I will then examine some of the implications to the Southeast Asian region and the South China Seas.

**China’s Naval Modernization – Why?**

Historically large continental powers have naval forces that tend to play a backseat to the development of land forces (Ross 2009). In a well-considered essay, Ross suggests that when one compares the force array of maritime powers and continental powers, continental powers tend to favor land forces vis-à-vis maritime forces for obvious reasons. With large land borders to defend, continental powers are forced to devote more of its resources to effective deterrence of threat from the land. From examples of Russia, Germany, and France, Ross argues that constraints experienced by continental powers limits their abilities to expand their naval power to challenge incumbent maritime powers. Extrapolating this to the contemporary situation of China’s build-up, he argues that China’s ability to challenge the United States naval power will be limited like all land powers before it.

The futility of land power trying to expand its maritime power notwithstanding, it has not stopped these powers from dreaming of a blue-water navy (Ross 2009). China’s blue-water navy dream is no exception then. This begs the question: Why modernize the PLA Navy? A simple answer to this question is: ‘Why not?’ Using history as our guide again, we have seen a strong correlation between increasing wealth and defense spending. That is, strong economic performance and its resultant accumulation of national wealth have led countries to divert resources to defense spending. In the case of major powers with a fair amount of ambition, power projection becomes the objective of increase defense expenditure. As China continues on its fast paced economic growth and development, its armed forces have experienced increases in its budget. The PLA Navy is probably the largest beneficiary of these increases as China seeks to build a blue-water navy. Let us turn to what are some of the prevailing thoughts on this question.

In 2010, China’s Defense White Paper listed four objectives of its national defense: i) to safeguard national sovereignty, security and interests of national development; ii) maintaining social harmony and stability; iii) accelerating the modernization of national defense and armed forces; and iv) maintaining world peace and stability (State Council Information Office 2011). From this objective, the PLA Navy is charged with the mission of defeating invasion from the sea, defending territorial sovereignty, and protecting maritime rights (Office of the Secretary of Defense 2012).

From these objectives and missions, military observers and scholars, both inside and outside of China, have offered numerous reasons for why China needs to modernize its navy and also why it needs a blue-water navy (Bitzinger 2007; Ross 2009; Thayer 2012; Robson 2013). Many of these reasons are inter-related and among the most common rationale is the need for China to be able to protect its trade routes (Robson 2013). The need to protect its access to sea lines of communication is highly correlated to China’s developmental needs. As China becomes ever more dependent on international trade to sustain its economic growth and development, it is increasingly concerned of its vulnerability of being denied access to vital trade routes. Scholars have noted China’s pre-occupation with the so-called Malacca dilemma where the choke points in Southeast Asia compromises China’s security (Kane 2002; Ross 2009; Thayer 2012). Not wanting to rely on US protection, the modernization of the PLA Navy to increase its capability of distant water operations, therefore, is supposed to equipped the PLA Navy with the ability to protect China’s maritime rights and access to sea lines of communication.

A common second reason for why China is modernizing the PLA Navy is closely related to its rise as a global player. As Murray et al (2013) note that in 2004 the Chinese government directed the PLA to

“prepare for nontraditional missions beyond China’s immediate periphery, including peacekeeping operations, humanitarian assistance and counterterrorism…[as] these missions are essential to China’s development…help extend China’s global influence, portray China as a responsible player on the world stage, and support international stability” (p.2).

This rationale is in line with China’s peaceful ascendance that sees the country ‘carrying its own weight’ in the international system. As a country that is so dependent on the stability of the international system, China is increasingly contributing to multinational efforts such as anti-piracy in the Indian Ocean.

Not wanting to be tagged a ‘free-rider’ and noble as these intentions may sound, Ross (2009) suggests that there is another side to this impetus to develop a naval force with the ability to perform nontraditional missions in distant waters. According to Ross (2009) there is a group of Chinese leaders that “were embarrassed by the contrast between the Australian and US leadership of the 2004 Indonesian tsunami maritime rescue mission and China’s peripheral role…they also find it humiliating that China cannot defend its citizens working abroad” (p. 66). Whether the impetus is from an instance of humiliation and helplessness or wanting to take on a more proactive role in global initiatives, the need to not only modernize but also build a “blue-water navy capable of sustained operations across oceans and able to project power far from the home country” (Robson 2013, p. 1) is believed to be an avenue to perform these missions. Indeed, in 2011 China sent a frigate through the Suez Canal to evacuate its citizens during the Libyan unrest and PLA Navy has participated in anti-piracy operations off the Somalian coast.

Another oft-cited reason for China’s naval modernization suggest that China’s maritime strategy is the pursuance of effective near seas defense (Thayer 2012; Murray et al 2013) or anti-access/area denial (A2/AD) capability (Ross 2009; Bitzinger 2007; Murray et al 2013). As China’s economy grew, the perception of threat also evolved. Chinese leaders have observed that events in the 1990s have shown that the United States may be willing and capable of intervening in regional conflicts that may involve China (Ross 2009; Thayer 2012; Murray et al 2013). One event that has created a very strong impression is the deployment of two aircraft carrier battle groups during the Third Taiwan Strait crisis of 1995-96 signaled the ability of the US to effectively intervene and provide deterrence. This, among many other events, provided a stimulus for accelerating modernization of the PLA Navy to at least provide effective access denial capabilities in the event of a conflict involving China, e.g., Taiwan.

The expanding capabilities of the PLA Navy, according to most observers, is more likely to be used to defeat Taiwan in the event of Taiwan declaring de jure independence. In particular, PLA Navy has been beefing up its A2/AD capability to at least deter or slow down US ability to intervene on Taiwan’s behalf. These capabilities can also be extended to Southeast Asia where China has a numerous interests including securing its trade routes, increasing contribution to regional efforts such as humanitarian missions, but also in asserting its own territorial claims in the area, in particular the Spratly Islands.

The improvement in the ability to deny access is very much a function of China’s concern of national sovereignty and territorial integrity that forms another factor for why China is seeking to modernize its naval force. The Taiwan case is the most obvious as China claims Taiwan as part of its national territory. Already, we are seeing a more assertive China willing to use its naval forces to project power and stake its claims on disputed territories. In the East China Sea as well as the South China Sea, China has been more willing to send out its naval force to ‘test the waters,’ ‘push boundaries,’ and just generally project its power. In the past two years, Japan and China has been involved in a ‘cat and mouse’ game in the waters near the Senkaku/Diaoyu Islands. More recently, China’s navy has sailed through straits of Japanese controlled islands in the East China Sea to reach the Pacific Ocean to conduct military exercises alarming Japan which sent fighter planes and naval ships to ‘shadow.’

While all of the above are valid reasons for China’s naval (and military) modernization, Ross (2009) argues that the most compelling rationale for the naval modernization and China’s aspirations for a blue-water force is what he terms “naval nationalism.” Naval nationalism is “a manifestation of nationalist ‘prestige strategies’ pursued by governments seeking greater domestic legitimacy” (Ross 2009, p. 46). From a historical perspective, China’s contemporary conduct is not something new or unique. The temptation to project power and the prestige surrounding the ability to project power far from the home country has encouraged land powers of the past to expand its maritime capabilities despite the constraints and challenges. What this perspective implies is that the pursuit of a blue-water power projection modern PLA Navy is strongly driven by nationalism, status, and prestige more so than just security consideration.

China’s naval defense strategy has been traditionally guided by a near-seas defensive strategy (or *jinhai fangwei*) (Murray et al 2013). This explains why China’s naval force structure tends to emphasize anti-access and access denial capabilities. But naval nationalism, according to Ross (2009) has made China reassess its near seas defense strategy and consider a distant seas defense strategy (*yuanhai fangwei*). This strategy calls for power projection capabilities that centered on the development of aircraft carriers and battle groups. Some observers (within China and abroad) have warned of the limits and effectiveness of China’s ability to project power to distant seas. Farley (2013) notes that power projection requires a set of support system that China currently does not possess such as “access to airbases worldwide to support land-based sea control aviation” operations (p. 1). China also does not have enough allies in a position to support sea control missions and conduct escort missions. Ross (2009), on the other hand, notes that constraints to defend a long land border will necessarily put a limit on how much resources can be diverted from land forces to naval forces.

Interestingly, while all these reasons are plausible, noble, correct, and to others worrisome, there is one particular stimulus for the modernization of the PLA Navy that seemed to be less mentioned. The fact that the PLA Navy has a force structure that desperately needs upgrading just to keep up with developments in other navies but also even to just provide effective near seas defense. In other words, the transformation and modernization of the PLA Navy is simply normal development (Thayer 2012). With aging equipment, the updating of the force structure of the PLA Navy is necessity even just ‘to keep up with the Joneses.’ Unfortunately, for the PLA Navy and the Chinese military in general, the size of the updating and modernization has caused concern. In my view, the concern stems from two factors, firstly, the force structure and the type of equipment acquired, and secondly, the transparency of intentions. We will return to these two factors in later sections.

In the next section, I will provide a brief summary of the force structure of the PLA Navy to give us an idea of what exactly is being modernized. Then, I will follow it up with a discussion of the implications of the PLA Navy’s modernization to South China Seas and the Southeast Asian region.

**What is modernized?**

After briefly reviewing some of the oft-cited impetus for China’s naval modernization, let us look at what the modernization of the PLA Navy entails. Figure 1 shows the force structure of the PLA Navy from 1990s and a projection of its likely structure in 2020.

Table 1. PLAN Surface Ships, total numbers (% modern in brackets)

Type 1990 1995 2000 2005 2010 2015 2020

Aircraft carriers 0 0 0 0 0 1 1-2

Destroyers 19 18 21 21 25 28-32 30-34

(20) (40) (50) (70) (85)

Frigates 37 37 37 43 49 52-56 54-58

(8) (25) (35) (45) (70) (85)

Corvettes 0 0 0 0 0 20-25 24-30

Amphibious ships 58 50 60 43 55 53-55 50-55

Coastal patrol 215 217 100 51 85 85 85

TOTAL 329 322 218 158 214 239-254 244-264

Source: Murray et al 2013.

Several observations can be inferred from the statistics in Figure 1. Looking at total surface ships, the PLA Navy has fewer surface ships today than in 1990. While the forecast is that by 2020, China will have over 240 surface ships, it still pales in comparison to the 329 ships in 1990. However, the total number of surface ships in 1990-2000 is bolstered by the large number of coastal patrol vessels giving us a misleading picture of the strength and power projection capabilities of the PLA Navy. The force structure of the 1990s seems to corroborate the observation that during this period, China’s maritime defense strategy emphasizes near seas defense.

Another observation from Table 1 is the increasing number of modern[[3]](#footnote-3) surface ships and larger surface ships that are capable of distant seas operations. In 1990, none of the larger surface ships (destroyers and frigates) are considered modern but by 2010, it is estimated that 50 percent of Chinese destroyers and 45 percent of frigates are considered modern. The prediction is that if PLA Navy modernization continues as planned then 85 percent of its destroyers and frigates will be modern by 2020. Adding to this tally are plans to construct aircraft carriers. China’s modernization plan is not only upgrading but also in line with its ambition to project its power and establish a credible blue water naval force. Whether this force structure and the level of modernization is enough to have effective A2/AD capabilities is another issue but we can safely infer that despite the decline in the physical numbers of surface ships, the PLA Navy capabilities have improved and are of better quality.

Table 2: PLAN Submarine, total numbers (% modern in brackets)

Type 1990 1995 2000 2005 2010 2015 2020

Diesel Attack 88 43 60 51 54 57-62 59-64

(7) (40) (50) (70) (75)

Nuclear Attack 4 5 5 6 6 6-8 6-9

(33) (33) (70) (100)

Nuclear Ballistic 1 1 1 2 3 3-5 4-5

TOTAL 93 49 66 59 63 66-75 69-78

Source: Murray et al. 2013.

In line with China’s near seas defense strategy, the force structure of China’s submarine also reflects emphasis on anti-access capability. Table 2 shows the submarine force structure of the PLA Navy. Juxtaposing Table 2 statistics with Table 1 shows that relatively dated diesel submarine were the mainstay of the PLA Navy’s submarine fleet. Like the earlier table, Table 2 also shows that the number of submarines have declined significantly. The glaring decline is in the number of diesel attack submarines with the retirement of the old and dated vessels but with the replacement of more capable and stealthy submarines (Murray et al 2013). The decline in numbers is significant but military observers have noted the upgrade in quality as China acquires more locally developed and/or jointly developed conventional as well as nuclear submarines.

Besides the numbers of submarines, the proportion of vessels that are considered modern[[4]](#footnote-4) is projected to increase to 70 percent of the total diesel and nuclear attack submarines in 2015. The replenishment of modern submarines to the PLA Navy fleet improves its access denial capability but also allows it to operate beyond near seas and the coastal areas. These statistics ring alarm bells to military analysts, particularly in the US, as the qualitative improvement in Chinese naval capabilities seem to be directed at US Naval operations in the region.

Besides the qualitative improvement and the expansion of Chinese naval capabilities, the pace of replacement is also significant. According to Erickson and Gabe (2013), by 2015 China will be second in terms of large warships built and commissioned in the post-Cold War period and by 2020 China will be the largest shipbuilder. Numbers aside, they also claim that the technical proficiency of the Chinese navy in 2020 will be at the level of Russia in 2013 and that by the year 2030, Chinese naval technical proficiency will be at the level of the US in 2013. [[5]](#footnote-5)

The statistics provided in Tables 1 and 2 show clearly that there has been a marked improvement in the modernization and strengthening of the PLA Navy in the past two decades. While to conclude that PLA Navy ships are completely modern would be wrong, there is no doubt that it has a much larger amount of modern ships and a much larger number of ships that can operate in distant seas and can possibly be more effective in anti-access and area denial operations.

Modernization of the PLA Navy, however, is incomplete if the ‘software’ of military operations cannot support the ‘hardware’ that is at the disposal of the military. In this regards, one of the most critical elements of the modernization is the deployment of new systems of networks of communication. China is now deploying a new generation of these C4ISR[[6]](#footnote-6) systems, as they are referred to, which includes “communications networks, data links, intelligence collection system, navigation satellites, and information fusion systems” (Murray et al. 2013, p. 4). By deploying these new C4ISR systems, the PLA improves its ability to coordinate the effective operation of all forces and enhances its anti-access and area denial capabilities.

A select sampling of China’s naval modernization gives us some indication of the significant improvement of the PLA Navy. What then are the implications of China’s naval modernization to Southeast Asia and the South China Sea? Let us turn to attempt to answer this question in the next section.

**Implications and Impacts**

In the previous two sections of this paper, we briefly discussed some of the rationale offered for the modernization of China’s naval force. We also looked at what is being modernized in the PLA Navy. But, so what? How does it affect Southeast Asia and the South China Sea?

Firstly, China’s military modernization (in general) and naval modernization (in particular) can partly explain increases in regional military expenditure. Though not technically an arms race as such, Southeast Asian states have increased their defense spending in the past two decades. The littoral states and in particular the ones that have claims on the Spratly Islands have been beefing up their naval forces with significant naval acquisitions (Bitzinger 2007; Thayer 2012). The Philippines, despite tight finances, have recently acquired refurbished US Coast Guard cutters to beef up its ability to patrol its territorial waters. It is also acquiring South Korean light combat aircraft as well as Taiwanese fast patrol boats. Vietnam has procured Kilo-class submarines from Russia as well as Sukhoi-30 fighter planes, guided missile frigates, and missile patrol boats. Already regional countries have started to acquire submarines as well as anti-submarine technology. Vietnam, Indonesia, Singapore, and Malaysia all have acquired submarines and the Philippines and Thailand are considering acquiring conventional submarines (Thayer 2012). As Bitzinger notes

“over the past two decades the leading countries in Southeast Asia have greatly increased their national war-fighting capacities, at least in part due to the increased uncertainties about the growth of Chinese military power…particularly noteworthy…is that it has gone far beyond the simple modernization of local armed forces…many militaries in the region have…added capabilities that they did not possess earlier, such as new capacities for force projection and…greatly improved command, control, communications, computing, intelligence, surveillance, and reconnaissance (C4ISR) networks” (Bitzinger 2007, p.9)

Bitzinger goes on to suggest that these improved capabilities amongst regional militaries change the manner of war fighting as well possibly ‘change the concept and conduct of warfare’ (2007, p. 10). All these improved capabilities and the increases in defense spending and modernization may be destabilizing to the region.

Secondly, as China’s military expands its presence in the South China Sea and beyond, it has caused concern amongst Southeast Asian countries not sure of China’s ultimate intention, as I mentioned in an earlier section (Bitzinger 2007). Despite the increase in defense capabilities and defense spending, the power asymmetry between China and the regional countries are obvious. This in turn has the effect of pushing regional actors to seek support or improve cooperation with extra-regional actors, particularly the US. Thayer (2012) notes that several Southeast Asian countries have sought out assurances from the United States and the US in turn has step up its engagement with countries in the region. The Philippines have given US more access and military cooperation has increased significantly. Even Vietnam’s engagement with the US is noticeable with the US signing a contract for ship maintenance in Cam Ranh Bay and mutual military visits. For the Southeast Asian region, these actions have the unintended consequence of compromising ASEAN unity and coherence, a point which I will return to later.

Thirdly, increasing number of more capable ships in the South China Sea means a more ‘crowded’ sea that increases the probability of maritime incidents. As Chinese ships patrol and assert their presence and as regional navies react with more capable ships, any tactical miscalculation by commanders can have very serious strategic implications. The probability of high sea incidents are not only limited to the antagonists in the South China Sea territorial dispute but also to PLA Navy and US Navy interactions and maritime incidents that can politicize policymaking in the US or drag the US into an unwanted tension and conflict (Ross 2009).

Fourthly, if we consider that with the availability of these ‘resources’ at the disposal of regional militaries – China’s modernized naval force as well as Southeast Asia’s upgraded naval capabilities – one more ingredient is needed to totally upset the apple cart and destabilize the region completely. That ingredient is nationalism. In China, Ross (2013) argues that naval nationalists have captured the political rhetoric and are setting the military modernization agenda in favor of a blue-water naval force. Already, in other countries in the region there are indications that nationalism in domestic politics is complicating regional politics. Baviera and Gallardo (2012) note that in the case of the Philippines, nationalism is pushing much of the agenda and perception of China and the Spratly Island issue. We need not look much further than the Senkaku/Diaoyu dispute to give us a glimpse of how nationalism works to stoke the rhetoric but at the same time serve as a constraint to policymakers (Tan and Chen, forthcoming 2013).

The combination of nationalism in domestic politics and the ‘rally around the flag’ actions plus the availability of ‘resources’ is more likely to lead to the occurrence of tactical errors and miscalculations resulting in an untoward maritime incident. Most and Starr (1989) suggest that actions in the international arena require the presence of three inter-related factors – willingness, opportunity, and resources. In the current situation in the South China Sea, there is no shortage of opportunity as littoral states reinforce their claims on the contested islands that they occupy while China asserts its own territorial claims (verbally and physically). Willingness can be described as whether the leaders and decision makers have the capacity or the guts to make a decision to undertake a specific action. Resources can be described as whether one has the ‘tools’ or the ‘equipment’ to undertake an action. In the South China Sea today, the build up of naval forces resulting from the action and reaction to China’s naval modernization has led to the availability of these ‘tools’ and ‘equipment.’ In other words, leaders of these countries have more resources at their disposal to take an action, e.g., area and access denial. The stoking of nationalism (intended or unintended) arm the leaders with a ‘willingness’ to take an action and with the available ‘resources’ can be destabilizing.

Fifth, China’s naval modernization triggers action and reactions that may lead to the relegation of ASEAN to the periphery as the South China Sea becomes a region of proxy conflict that masked the competition between two major powers. Interestingly, as Ross (2009) warns, while China’s maritime powers will be limited, the pace of the modernization of the PLA Navy will present a challenge to ongoing US-China relations and future cooperation. Ross goes on to suggest that,

[China’s] development of carrier-based naval capabilities will resonate with the American public and over time promote a perception of China as a credible threat to U.S. security…*Exaggerated assessments* of Chinese naval power have already emerged in Washington policy debates and in local public opinion. In a domestic political environment in which both China and the United States are experiencing naval nationalism, American policymakers’ ability to develop the United States’ China policy free from the influence of nationalism, politicized public opinion, and partisanship will be difficult” (2009, pp. 78-79; emphasis added).

For Southeast Asia, the main concern is how major power rivalry will impact upon ASEAN itself. In particular, rivalry in the region by major powers can undermine ASEAN autonomy and contribute to instability in the region. Thayer (2012) suggests that major power rivalry can come in several forms such as conflict between major powers, conflict between a major power and a littoral state, or a conflict that draws in a major power in an extended deterrence scenario. He further notes that as “major power rivalry could impact indirectly on regional security by spilling over and affecting ASEAN cohesion resulting in individual members calculating whether alignment with a major power is a better guarantee of their national security than ASEAN multilateralism” (p. 25). As with many states with extensive trade ties with China and strong traditional ties with the United States, several countries in this region prefer to balance between major powers rather than be forced to choose sides (Tan 2012). This is a continuing challenge and a constraint for ASEAN to stay relevant in the territorial dispute in the South China Sea. As member states get caught in different positions on the dispute, national interests replace ASEAN group interest as states find their own ways to bolster their claims and enhance their security.

**Some Concluding Thoughts**

China’s economic rise has also seen the rise of its political power. As a major power, China has turned its attention on modernizing its armed forces in the name of protecting its gains and national sovereignty. In this paper, I have briefly surveyed some of the rationale of China’s naval modernization as well as present some basic figures of what China’s naval modernization entails. The implications of China’s naval modernization to the South China Sea and Southeast Asia are many. However, in the absence of effective regional security coordinating mechanism, the action and reaction that is triggered by China’s military modernization point to increasing regional instability but in my view it does not necessarily mean that conflict is inevitable. Current explanations are premised on a linear pattern of growth in these events that, of course, may not actually be feasible or realistic. The pace of regional economic growth and regional economic integration, for example, may well raise the stakes for all actors not to ratchet up their disputes to undermine the gains from economic interactions. More importantly, the actions of the two major players – China and the US – cannot be overstated. Ultimately, China’s naval modernization is desire to assert influence and power in the region where the US as the current hegemon has also defined global interests. The state of Sino-US relations, then, will always take center stage in the region. Though political relations are yet to be solidified and convergence of national interests is still a work-in-progress, Sino-US relation is driven by the economic and financial interdependence of both countries that in turn shape the political relations as coordination and cooperation on policy issues is required (Feng 2013). Therefore, the evolution of future US-China relations – as the two economies continue to be ever more integrated – may provide some level of restraint to more belligerent behavior, at least for now.

**References**

Baviera, Aileen and Sascha Gallardo. 2012. “Preliminary Analysis of Filipino Public Opinion and Stakeholder Interests in the Philippines-­‐China Disputes in the South China Sea.” Paper presented at the 4th Workshop on the South China Seas, Ho Chi Minh, Vietnam, November 18-21.

Bitzinger, Richard A. 2007. “The China Syndrome: Chinese Military Modernization and the Rearming of Southeast Asia.” Singapore: S. Rajaratnam School of International Studies Working Paper Series no. 126.

Erickson, Andrew and Gabe Collins. 2013. “China Carrier Demo Module Highlights Surging Navy.” *The National Interest*. *http://nationalinterest.org/commentary/china-carrier-demo-module-highlights- surging-navy-8842.* August 6. <accessed October 27, 2013>

Farley, Robert. 2013. “The Chinese Navy Has a Problem.” *The Diplomat*, March 27.

Feng, Yi. 2013. “Global Power Transitions and Their Implications for the 21st Century.” *Pacific Focus* 28 (2): 170-189.

Kane, Thomas M. 2002. *Chinese Grand Strategy and Maritime Power*. London: Frank Cass.

Most, Benjamin and Harvey Starr. 1989. *Logic, Inquiry and International Politics*. Columbia, SC: University of South Carolina Press.

Murray, Craig, Andrew Berglund, and Kimberly Hsu. 2013. “China’s Naval Modernization and Implications for the United States.” Washington, DC: US-China Economic and Security Review Commission Staff Research Backgrounder.

Office of the Secretary of Defense. 2012. “Military and Security Developments Involving the People’s Republic of China 2011.” Report to Congress Pursuant to the National Defense Authorization Act for Fiscal Year 2000, Washington D.C.

PRC State Council Information Office. 2011. China’s National Defense 2010. Beijing: PRC State Council.

Robson, Seth. 2013. “China’s Naval Aspirations: A ‘blue-water’ force.” *Stars and Stripes*, June 25.

Ross, Robert S. 2009. “China’s Naval Nationalism: Sources, Prospects, and the U.S. Response.” *International Security* 34 (2): 46-81.

Tan, Alexander C. 2012. “China and its Neighbors: Too close for comfort?” In Kristen P. Williams, Steven E. Lobell, and Neal Jesse (eds.) *Beyond Great Powers and Hegemon*. Stanford: Stanford University Press.

Tan, Alexander C. and Boyu Chen. (forthcoming 2013). “China’s Competing and Coopting Nationalisms.” *Pacific Focus* 28 (3).

Thayer, Carlyle A. 2012. “China’s Naval Modernization and U.S. Rebalancing: Implications for Stability in the South China Sea.” Paper presented at the 4th Workshop on the South China Seas, Ho Chi Minh, Vietnam, November 18-21.

1. Paper prepared for presentation at the “Rise of China and the Tangled Development in East Asia” conference held at National Quemoy University, Kinmen, Taiwan, 24-25 October 2014. [↑](#footnote-ref-1)
2. It is important to note that the United States still spends more than the total of the other top 10 defense spenders in the world. [↑](#footnote-ref-2)
3. Defined as those ships “able to conduct multiple missions” (Murray et al 2013, p.7) [↑](#footnote-ref-3)
4. Modern submarines are defined as “those able to employ submarine launched intercontinental ballistic missiles or anti-ship cruise missiles (Murray et al 2013, p. 6) [↑](#footnote-ref-4)
5. It is important to note that despite the improvement in the technical proficiency of the PLA Navy by 2030 it still lags behind the levels of the United States Navy assuming that there are no marked improvement in the capabilities of the US Navy in the next two decades. Ross (2009) notes that what China’s naval nationalism has stimulated is mutual naval nationalism on the part of the US that has seen exaggerated assessments of Chinese military capabilities. [↑](#footnote-ref-5)
6. C4ISR is an acronym for command, control, communications, computers, intelligence, surveillance, and reconnaissance. [↑](#footnote-ref-6)