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RED DRAGON RISING: CHINESE NAVAL MODERNIZATION AND THE IMPLICATIONS FOR REGIONAL SECURITY

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ABSTRACT

Since 1949 China has made an amazing transformation from a mainly agrarian and developing country to an industrial and economic powerhouse. During this transformation, it came to recognize the importance of the maritime realm to its interests and also began a period of military and naval modernization. This modernization effort was initially slow and was constrained not only by a focus on the army, but also by an emphasis on nuclear capabilities and the political and economic disasters of the Great Leap Forward and the Cultural Revolution. Freed from these constraints and enjoying economic prosperity, Mao's successors realized the importance of the PLAN to China's interests and ambitions and began a period of rapid modernization. Up until very recently, commentators assessed that China had made much progress, but continued to suffer from weaknesses that prevented it from posing a substantial threat to the U.S. Navy. Since 2010 these weaknesses have largely been resolved and its capabilities, especially when taken together with those of the PLAAF and the Second Artillery Service, now provide a serious challenge to the U.S. Navy and would prevent or impede its freedom of movement and operations within the first and second island chains. The PLAN has now become a 21st Century regional navy that is capable of blue-water operations and is quickly expanding not only its blue-water reach, but also its blue-water sustainability. Many factors, including economic, political & strategic as well as historical & cultural, have driven this modernization. While the economic and political/strategic factors, such as protection of its SLOCs and preventing interference in its territorial disputes, can be easily explained by and fit into traditional western political theories such as realism, the historical & cultural factors cannot be easily explained by nor fit into existing theories. These historical & cultural factors can be summed up by reference to China's "master historical (or national) narrative", which has imbedded a deep-seated sense of national humiliation, lost empire, obsessive defensiveness as well as national ambition to regain its great power status in the Chinese people. Peace, security, stability and prosperity in Asia in the post-Vietnam war era have largely depended upon the U.S. built alliance system and the pre-eminent military might of the U.S. Navy, but the U.S. has now lost its unchallenged position in the region and faces a nation intent on regaining its great power status and regional influence. Because of a decade long relative absence of U.S. attention to the region during the wars in the middle-east and concurrent budget cuts that have affected the strength of the U.S. Navy, its allies have become nervous that it is either unwilling or unable to support them against possible Chinese aggression. Given this situation, the available options for the U.S. are limited. Militarily challenging China, trying to maintain the status quo or removing itself from the region are all unacceptable options. The only reasonable and viable option is to cooperatively engage China at the same time as it redevelops its own military capabilities and concurrently shares power with China while encouraging it to be a responsible regional influence. This would eventually result in a bi-polar regional power system where western, pan-Asian and Chinese interests could be all met in stability. However, given the huge cultural differences between the U.S. and China, the Chinese national narrative will potentially be a barrier to mutual understanding and a successful re-negotiation of the balance of power in the Asian-Pacific region. The success of this new regional relationship will depend to a large degree on the level that each side understands the unique cultures' and world-views' of the other and, therefore, are able to avoid conflict.

LIST OF ABBREVIATIONS

A2/AD	Anti-Access and Anti-Denial
AEWC&C	Airborne Early Warning Command & Control
ASBM	Anti-ship Ballistic Missile
ASCM	Anti-ship Cruise Missile
AWACS	Airborne Warning and Control System
C4ISR	Command, Control, Communication, Computers, Intelligence and Reconnaissance
CCP	Communist Party of China
CIWS	Close-in Weapon System
EEZ	Economic Exclusion Zone
GPS	Global Positioning System
ICBM	Intercontinental Ballistic Missile
IRBM	Intermediate Range Ballistic Missile
KMT	Kuomintang
LACM	Land Attack Cruise Missile
LPD	Landing Platform Dock
LSM	Landing Ship, Medium
LST	Landing Ship, Tank
MAD	Magnetic Anomaly Detector
MIRV	Multiple Independently Targetable Re-entry Vehicle
MPA	Maritime Patrol Aircraft
MRBM	Medium Range Ballistic Missile
ONI	Office of Naval Intelligence
PLA	People's Liberation Army
PLAAF	People's Liberation Army Air Force
PLAN	People's Liberation Army Navy
ROC	Republic Of China
SAM	Surface-to-air Missile
SLOCs	Sea Lanes of Communication
SRBM	Short Range Ballistic Missile
UAV	Un-manned Aerial Vehicle
UNCLOS	United Nations Convention on the Law of the Sea

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INTRODUCTION

As for the United States, for a relatively long time it will be absolutely necessary that we quietly nurse our sense of vengeance….We must conceal our abilities and bide our time.

- Lieutenant General Mi Zhenyu[1]

America no longer has the capacity to maintain sea control in the Western Pacific against Chinese naval and air forces, and it has therefore lost the capacity to deploy the sea-based forces that have provided the military foundation for strategic primacy in Asia.

- Hugh White[2]

Over the last thirty years, China has made a meteoric rise from a poor and mostly agrarian nation to an industrial and economic powerhouse that is second only to the United States as the world's richest country.[3] For at least ten years now, the media has focused much attention on this turn of events, with increasingly sensational stories highlighting both the opportunities and the dangers that this situation presents for the west.[4] Despite this attention, it has only been in the last couple years that the general public has become aware of China's concurrent military rise.[5]

Prior to this, analysis of China's military affairs was confined mostly to a small circle of scholars within the academic and government communities.[6] An even smaller, inner-circle within this community has been focused mainly on Chinese naval affairs. Consisting of both former naval officers turned scholars and purely academic figures, this inner-circle is made up of

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[1] Steven W. Mosher, *Hegemon: China's Plan to Dominate Asia and the World* (San Francisco: Encounter Books, 2000), 12.

[2] *Megatrends China* (Beijing: Hualing Publishing House, 1996), quoted in Hugh White, *The China Choice: Why We Should Share Power* (Oxford: Oxford University Press, 2012), 74.

[3] David Shambaugh, *China Goes Global: The Partial Power* (Oxford: Oxford University Press, 2013), 5.

[4] Ibid., 4.

[5] Tribune Information Services, "How He Sees It: China's Modernizing Military, Economic Clout Pose Challenge for U.S.," last accessed 16 July 2013, http://www.vindy.com/news/2005/apr/28/how-he-sees-it-chinas-modernizing-military/?print

[6] James R. Holmes and Toshi Yoshihara, *Chinese Naval Strategy in the 21st Century: The Turn to Mahan* (New York: Routledge, 2208), 6.

people such as Larry Wortzel, Bernard Cole, James Holmes, Peter Howarth, Andrew Ericson, Sam Tangredi, Lyle Goldstein, Geoffrey Till, Carnes Lord and Toshi Yoshihara. The wider community, which by necessity must also touch on naval affairs, is made up of people such as David Shambaugh, Robert Kaplan, Andrew Nathan, Susan Shirk, Denny Roy, Andrew Scobell, Hugh White and Steven Mosher.

While this paper will consider the writings of both the inner-circle and the wider community, it will focus its efforts on Chinese naval affairs. Within the topic of Chinese naval affairs, three main questions have been the interest of study: 1) what are Chinese naval capabilities; 2) why have they developed these capabilities; and 3) what is the impact of these capabilities on regional security? Why are these questions important?

Approximately eighty per cent of all global trade is carried by sea and this percentage continues to increase, especially with respect to the Asian-Pacific region.[7] In 2012 alone, thirty-nine per cent of all global seaborne trade originated (was loaded) in Asian ports and fifty-seven per cent of all global seaborne trade was unloaded in Asian ports.[8] Asian seaborne trade, therefore, represents a massive portion of not only all seaborne trade, but also all global trade.

Of this Asian seaborne trade, the vast majority, including thirty-three per cent of all crude oil in the world, flows through the Malacca Straits (which also includes the Singapore Strait) that connects the Indian Ocean to the South China Seas.[9] In addition, this area also contains the important straits of Sunda, Lombok and Wetar. As Bernard Cole says, the traffic passing through these areas"…dwarfs that passing through the Panama and Suez Canals."[10] In turn, Robert Kaplan describes the South China Sea as the "…throat…" of the world-wide trade network that

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[7] United Nations Conference on Trade and Development, *Review of Maritime Transport 2013* (Geneva: United Nations Publications, 2013), XI.
[8] Ibid., 9.
[9] Bernard Cole, *The Great Wall at Sea: China's Navy in the Twenty-First Century*, 2nd ed. (Annapolis: Naval Institute Press, 2010), XXII.
[10] Ibid.

acts as the "…connective economic tissue where global sea routes coalesce."[11] If it is true that the twenty-first century is quickly becoming a maritime century then this traffic makes the region encompassing the South China Sea, the East China Sea and the Yellow Sea the most important area to global trade and economic well-being in the world.[12] The more influence a nation has over it, therefore, and the associated Sea Lanes of Communication (SLOCs), the more influence it will have over both regional and global affairs.

As well as global seaborne trade, the South China and East China Seas are the scenes of many important territorial disputes that variously involve Brunei, China, Vietnam, Taiwan, the Philippines, Indonesia, Malaysia and Japan.[13] One of the main motives for these disputes is eventual access to and control of the large mineral and fuel/oil deposits in the waters surrounding the islands of contention, which could have enormous energy and economic impacts for which ever nation controls them.[14] Of course, territorial integrity and sovereignty, as each of the disputants see it, also plays a major role in these disagreements.

The common thread here is the seas and control of them, particularly the Asian-Pacific region. In the period between the end of World War II and the completion of the Cold War, The United States of America rose to be the most influential nation and the pre-eminent maritime power in this region.[15] Since the end of the Vietnam War, it has used this power to be a moderating force, quelling regional competition, fostering stability and encouraging economic

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[11] Robert Kaplan, *Asia's Cauldron: The South China Sea and the end of a stable Pacific* (New York: Random House, 2014), 9.
[12] Zhuang Jianzhong, "China's Maritime Development and U.S.-China Cooperation " in *China, The United States and 21st-Century Sea Power: Defining a Maritime Security Partnership*, ed Andrew S. Erikson, Lyle J. Goldstein and Nan Li, 3-13 (Annapolis: Naval Institute Press, 2010).
[13] Bernard D. Cole, *Asian Maritime Strategies: Navigating Through Troubled Waters* (Annapolis: Naval Institute Press, 2013), 14.
[14] Peter Howarth, *China's Rising Sea Power: The PLA Navy's Submarine Challenge* (London: Routledge, 2006), 28.
[15] Ashley J. Tellis, "Uphill Challenges: China's Military Modernization and Asian Security," in *China's Military Challenge*, ed Ashley J. Tellis and Travis Tanner, 3-24 (Washington, DC: The National Bureau of Asian Research, 2012), 4.

development.[16] During this same period, China has traditionally been a poor, rural continental power with a focus on a land-based military.[17] Today, however, China has the largest territory, the largest economy and the largest military of any country in the region.[18] Furthermore, in the last few decades, it has "…turned seaward…" and modernized its navy.[19]

With this in mind, our three questions become supremely important. Does China have enough naval capabilities to be classified as a modern and world-class navy? If so, why did they develop these capabilities and, finally, what are their impacts? In short, does China possess enough naval capabilities to exert significant control or influence over the regional seas and the maritime commons surrounding those seas? If so, then they could potentially alter the balance of power in the entire Asian-Pacific region and, in turn, affect global security and affairs. As Denny Roy has pointed out, this could be "…the pre-eminent global security issue of the twenty-first century."[20]

Within the wider community of China-watchers, there are two main schools of thought.[21] The first group believes that China is preparing not only to be the single dominant military power in Asia, but also to challenge U.S. global supremacy and is building a modern military, including a blue-water navy, as the major weapon in that fight. While their individual work varies in how moderately or sensationally they word their conclusions, authors such as Steven Mosher, Martin Jacques, Richard Fisher and Geoff Dyer are members of this group.

The second group believes that while China is preparing to be one of a small group of major regional military powers, alongside India, Japan and South Korea, it has no intention of

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[16] Ibid.
[17] Roy Kamphausen, "China's Land Forces: New Priorities and Capabilities," in *China's Military Challenge*….
[18] Ibid.
[19] James R. Holmes and Toshi Yoshihara, *Chinese Naval Strategy in the 21st Century…*, 2.
[20] Denny Roy, *Return of the Dragon: Rising China and Regional Security* (New York: Columbia University Press, 2013), 1.
[21] James R. Holmes and Toshi Yoshihara, *Chinese Naval Strategy in the 21st Century…*, 6.

vying with the U.S. for global super-power status. These analysts believe that domestic challenges and weaknesses, as well as a desire to prevent any economic slow-downs, will lead China to be content to be a participating regional power that has a contributory voice within the global community. Authors such as Susan Shirk, Andrew Nathan, Andrew Scobell and Ross Terril are members of this group.

Within the smaller, inner-circle of analysts that have researched Chinese naval modernization there has been more consensus over-all. Until very recently, this group has generally expressed admiration for the pace of modernization and the progress made, but has concluded that the Chinese were too far behind in technology, training, readiness, maintenance, supply practices and experience to challenge the U.S. Navy and, thus, change the balance of power and security in the Asian-Pacific region.[22] While they generally agree that China's naval modernization has been undertaken with the aim of eventually matching, or at least nearing, U.S. Navy capabilities so that they can protect their interests and be a balancing force against American pre-eminence in the Asian-Pacific region (especially in the context of a conflict over Taiwan), these authors have reported that this milestone would not be met until well into the twenty-first century.[23] Instead, they conclude, the Chinese have succeeded in "…developing a more modern force capable of operating in waters near China, within the broader Asian region, and (for some [limited] missions) in extra regional deployments."[24]

However, many in this group, including Lyle Goldstein, James Holmes and Andrew Erickson, as well as U.S. Navy commentators, such as Captain Dale C. Rielage, have very recently noted extensive progress in areas of former weaknesses that have resulted in a much

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[22] Philip C. Saunders and Christopher Young, "Conclusion," in *The Chinese Navy: expanding Capabilities, Evolving Roles*," ed. Phillip C. Saunders, Christopher Yung, Michael Swaine and Andrew Nien-Dzu Yang, 287-293 (Washington, DC: National Defence University Press, 2011), 289.
[23] Bernard Cole, *The Great Wall at Sea*…, 200.
[24] Philip C. Saunders and Christopher Young, "Conclusion," in *The Chinese Navy*…, 287.

more robust and capable Chinese navy than has been expected.[25] These developments, along with earlier progress, and their subsequent implications will be discussed in this paper. This paper will also place Chinese naval modernization within the historical and cultural context of the nation, to show what has driven these developments.

It is the thesis of this paper that China does, in fact, already possess a modern and sophisticated navy that could severely limit the U.S. Navy's freedom of movement throughout what is called the First and Second Island Chains. It has developed these capabilities not only for economic and political reasons, but also for deep-seated historical and cultural reasons. These new capabilities could alter the security and stability of the Asian-Pacific region because it potentially challenges the U.S. alliance system and will necessitate a renegotiation of the leadership and power system in the area. The successful and peaceful renegotiation of this system will heavily depend upon a common understanding of each sides world-views' and historical & cultural narratives'.

For the analysis and synthesis of material this paper drew upon four different types of works. The first type was popular works written by people who had lived and worked in China for a number of years, which was useful as an insight into how the common Chinese feels and thinks about their country and this topic. The second type was academic works written by scholastic and analytical China watchers. These works often drew upon Chinese language primary sources and were useful not only as a source of historical events, but also as an insight into how Chinese military and government officials think and feel about this topic and in what direction they are strategically driving their country. The third type was government works. These works often drew upon intelligence assessments and were useful to determine present and planned capabilities as well as projected uses for those capabilities. The third type was media and

[25] Dale C. Rielage, "Fit to Fight," *U.S. Naval Institute Proceedings* Vol 140/4/1,334 (April 2014): 55.

news works from reliable sources, which were useful for assessments of current events in Asia and for commentary that tied into all the other works.

Based on the analysis and synthesis of these works, the argument is structured as follows. Chapter I describes the phases of China's strategic framework, from Near-Coast Defense, Near-Seas Active Defense and Far-Seas Operations. This reveals what goals China is pursuing, what time-lines China has set for these goals and what capabilities it thinks it needs to achieve those goals. Chapter II discusses the current capabilities of the PLAN and, to a certain degree, its sister services of the People's Liberation Army Air Force (PLAAF) and the Second Artillery Service. This reveals what capabilities they have developed to achieve their goals and where on their pre-set time-lines they are. Chapter III discusses what factors drove the development of the Chinese strategic framework and naval modernization. This reveals why they feel their set goals are important and why they want to pursue them. While this topic arguably overlaps with and could have been discussed alongside the topic of Chapter I, it was decided to separate the topics into two Chapters in order to highlight their individual importance and to focus on each without interfering thought lines. Chapter IV discusses how Asian-Pacific security and prosperity has largely depended upon the U.S. built alliance system and the unchallenged military might of the U.S. Navy. Furthermore, it discusses how the rise of Chinese naval capabilities potentially threatens this system and pre-eminence, what options the U.S. has given this new reality, what option would appear to be the best course of action and what dangers are potentially inherent in that option. In short, this reveals the implications and significance of China's goals and capabilities to the larger question of regional security and stability. Finally, the conclusion summarizes the information of the previous four chapters into a single narrative.

CHAPTER 1 – STRATEGIC FRAMEWORK

Introduction

This chapter will describe the phases of China's strategic framework from 1949, when the Communist Party came to power, to the current period. This topic is important, because each phase had implications for what type of naval platforms China felt it needed and, therefore, what level of modernization it needed to pursue at different periods. Without knowledge of this topic one cannot understand what goals China is pursuing, what time-lines China has set for these goals and what capabilities it thinks it needs to achieve those goals. Since 1949 there have been three distinct phases to China's strategic framework: Near-Coast Defense; Near-Seas Active Defense; and Far-Seas Operations.

Near-Coast Defense

Traditionally a land-power with a military emphasis on its army, China's naval strategy from 1949 into the early 1980s was focused on what has been called "near-coast defense."[26] This strategy was focused on defending the first few nautical miles out from the coastline, key straits important for accessing that coastline and the harbours, inlets and sea-ways on both the coast and in-land.[27] The important function of this strategy was to prevent, or at least slow down, an enemy from flanking China's land forces by moving onto the mainland from the sea and establishing

[26] Nan Li, "The Evolution of China's Naval Strategy and Capabilities: From 'Near Coast' and 'Near Seas' to 'Far Seas,'" in *The Chinese Navy: expanding Capabilities, Evolving Roles*," ed. Phillip C. Saunders, Christopher Yung, Michael Swaine and Andrew Nien-Dzu Yang, 109-140 (Washington, DC: National Defence University Press, 2011), 111.
[27] Ibid.

invasion beach-heads.[28] Once on the mainland, the enemy would be fought in a manner consistent with Mao's concept of "people's war" -- gradually falling back and harassing the enemy until he is too over-extended and too weak to effectively pose a threat – thus minimizing the importance of the navy.[29]

As the name implies, this was primarily a defensive strategy (although Mao liked to refer to it as an active defense rather than a passive defense[30]) and neither the People's Liberation Army (PLA) nor the People's Liberation Army Navy (PLAN) had much ability to project power too far from the coast.[31] In this role, the PLAN was of lesser importance than and subordinate to the PLA and was mainly used to throw itself at the enemy and slow it down, thus buying time for the army, rather than doing any real damage. [32] Without much attention or funding, the PLAN merely consisted of "… four old Soviet submarines, two destroyers, and a large number of patrol boats" as well as "… ten corvettes, forty U.S. landing craft and several dozen miscellaneous river gunboats, minesweepers, and yard craft seized from the Nationalist."[33]

In the 1960s and 1970s a large number of small, but fast torpedo boats, gun boats and missile boats as well as a hand-full of domestically built frigates, submarines and land-launched bombers were added to the fleet.[34] By this time the main enemy had become the Soviet Union, with whom relations had broken down and which possessed much more modern vessels than the Chinese, and the main strategic concept had become Deng Xiaoping's "people's war under modern conditions", which was really just a modification of the "near-coast" strategy" aimed at

[28] Ibid.
[29] Ibid.
[30] Toshi Yoshihara and James R. Holmes, *Red Star Over the Pacific: China's Rise and the Challenge to U.S. Maritime Strategy* (Annapolis: Naval Institute Press, 2010), 27.
[31] Bernard Cole, *The Great Wall at Sea*…, 7.
[32] Nan Li, "The Evolution of China's Naval Strategy and Capabilities …, 112.
[33] Bernard Cole, *The Great Wall at Sea*…, 8.
[34] Nan Li, "The Evolution of China's Naval Strategy and Capabilities …, 114.

defending against a Soviet invasion.[35] This strategy still emphasized the army and was still primarily defensive, but it stretched the navy's area of operation further away from the coast and gave it a more active role, now focusing on doing as much damage to the enemy as it could for as long as it could do it.

Using guerrilla-style attacks, the Chinese ships would hide amongst the many islands and inlets of the littoral waters, use electronic interference and supporting naval and/or air strikes to disrupt the enemy, use obstacles such as mines and concrete barriers to funnel the enemy into specific areas and then swarm the enemy in quick strikes from many different directions.[36] In addition to using these strikes to disrupt an enemy while it was still approaching the coastline, they would hit them at areas where their ships had already reached the shore and were disembarking troops and their mechanized support vehicles.[37] In terms of how the available platforms were used, then, this strategy was much more coordinated and offensive then the earlier "near-coast defense."

However, while this strategy was much more active, the vessels used were still not very modern in comparison to other navies; most were small, almost all were single-role platforms and none had any real endurance or sustainability, all of which precluded the Chinese navy from being a very imposing force.[38] In short, there was a push to modernize the navy's technological capabilities and much progress was made in updating both weapons (including nuclear) and electronics systems, but this was always done with a coastal defense model in mind and this mind-set constrained the development of platforms that were capable of being effective in deeper water and in more complex warfare environments.[39] As Carl Otis has commented, the Chinese

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[35] Ibid., 112.
[36] Ibid., 113.
[37] Ibid.
[38] Ibid., 114.
[39] Bernard Cole, *The Great Wall at Sea*…, 173.

navy was "…capable of inflicting severe damage on a World-War II-era amphibious landing force but would have been hopelessly outclassed and easily destroyed by any intense and concentrated series of air strikes [or by any modern navy of the time]."[40] This situation was emphasized and for a time perpetuated by Mao's successor, Deng Xiaoping, when he continued to assert that the navy was merely a coastal force for defensive operations only.[41]

Sometime in the mid-1980s, though, he began to change his mind about "people's war under modern conditions" and started to propose what later came to be called the "near-seas active defence" strategy.[42] This new mind-set can be seen in his comments to a number of Admirals while he was embarked on an official tour of *Jinan*, one of the first domestically built destroyers: "The ocean is not a narrow city moat, and the Navy should not be defenders of a city. To establish and build a strong and wealthy China, we should head out to the world and face the ocean."[43] By 1987, with significant intellectual contributions from General/Admiral Liu Huaqing (the head of the PLAN from 1982 to 1988 and Vice-Chairman the Central Military Commission from 1989 to 1998), Deng had promulgated the "near-seas active defense" as the official naval strategy of China.[44]

Near-Seas Active Defense

If the "near-coast defense" can be considered the first discrete phase of China's naval modernization, with "people's war under modern conditions" as a refinement of it, then the "near-seas active defense" can be considered the second discrete phase. As both the name and

[40] Carl Otis Schuster, "China: Its maritime traditions and navy today," in *Sea Power and the Asia-Pacific: The Triumph of Neptune?*, ed. Geoffrey Till and Patrick C. Bratton, 56-74 (London: Routledge, 2012), 57.
[41] Bernard Cole, *The Great Wall at Sea*…, 14.
[42] Nan Li, "The Evolution of China's Naval Strategy and Capabilities …, 116.
[43] Gao Xiaoxing, *The PLA Navy* (New York: CN Times Books, 2014), X.
[44] Nan Li, "The Evolution of China's Naval Strategy and Capabilities …, 116.

the quote above imply, this strategy pushed the Navy's operating area further out to sea and its roles and responsibilities were increased. This necessitated a dramatic improvement in capabilities and the pace of naval modernization, which until then had been constrained by a strategic focus on the army as well as internal political and economic problems, stepped up in pace.[45]

In order to provide a guideline and structure for this modernization, Admiral Liu Huaqing formulated the first and second island Chain plan (pictured below in Figure 1.1). Former U.S. Navy Captain Bernard Cole, in *Asian Maritime Strategies: Navigating Troubled Waters*, describes this plan:

> His [Liu's] strategy is conveniently described as a three-phase process. First, by 2000 the PLAN would be capable of defending China's maritime security interests out to the "first island chain," a line drawn from the Kuril Islands through Japan and the Ryukyu Islands, then through the Philippines to the Indonesian archipelago. Second, by 2020 it would defend China's maritime security interests out to the "second island chain," a line drawn from the Kurils through Japan and the Bonin Islands, then through the Marianas Islands, Palau, and the Indonesian archipelago, with the implied inclusion of the islands of Java, which would extend the navy's control through the Singapore and Malacca straits. Finally, by 2050 the PLAN would possess aircraft carriers and have the capacity to operate globally to support China's maritime interests.[46]

[45] Bernard Cole, *The Great Wall at Sea*…, 14.
[46] Bernard D. Cole, *Asian Maritime Strategies*…, 97.

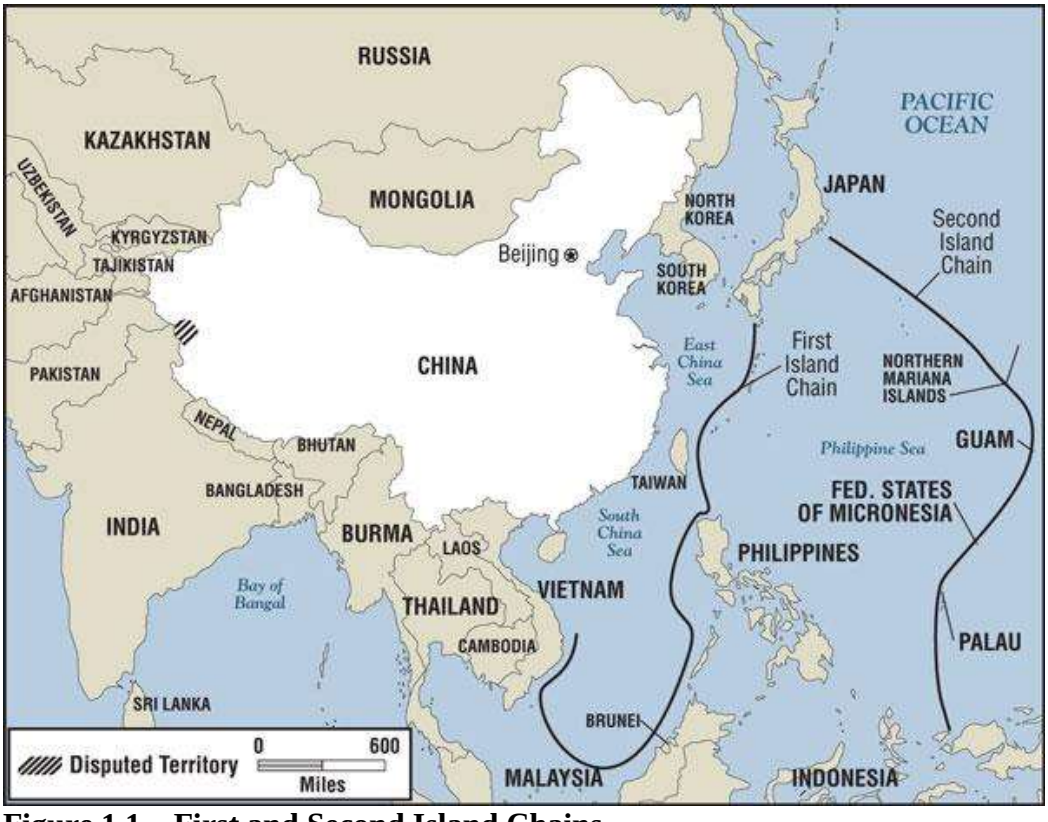

Figure 1.1 – First and Second Island Chains
Source: Vego, "China's Naval Challenge", 39.

While Liu's plan discussed both the first island chain, what was considered to be near seas, and the second island chain, what was considered to be the beginning of the far seas, he knew and fully expected that the transition from near-coast capabilities to near-seas capabilities would take a very long time to occur and may, in fact, not be achieved within the time frame he had specified.[47] In a very real sense, then, operational capability within the near-seas may over-lap somewhat with operational capability in the far-seas, but each would remain discrete phases (or strategies) within themselves and mastery of near-seas operations would need to be achieved before the navy could set its focus on the far-seas and beyond.[48] What was important, however, was that the civilian leadership of the Chinese Communist Party (CCP) had finally

[47] Nan Li, "The Evolution of China's Naval Strategy and Capabilities …, 129.
[48] Bernard D. Cole, *Asian Maritime Strategies*…, 97.

recognized the importance of the maritime realm and, for the first time since the CCP came to power, the PLAN had become a "strategic" force in its own right, no longer subordinated to the PLA.[49] This turn of events allowed the PLAN to mature.

Towards the end of the "near-coast defense" phase, China had built up, through both domestic production and foreign acquisition, a fairly large navy. In 1990, it consisted of 14 destroyers, 35 frigates, 1 ballistic missile submarine, 80 attack submarines (including 5 nuclear submarines), 200 missile-armed fast attack craft, 65 amphibious ships and 65 smaller, auxiliary ships.[50] Even though these vessels were much more capable than the ones possessed from the 1950s through to the 1970s, they still had been primarily built for coastal operations, were not really intended to go out into open ocean and were, once again, much smaller than, much slower than, much less technologically advanced than and had less endurance than vessels with the same class designations from other navies.[51] With a few exceptions, these vessels still mostly met Carl Otis's earlier description. The new "near-seas" strategy, however, had entirely different objectives than the old "near-coast" strategy and these new objectives required new capabilities.

Instead of focusing on defending against an invasion from sea, which was highly unlikely in the prevailing geo-political circumstances and had become a counter-productive focus, the "near-seas" concept was an offensive strategy. This strategy was meant "… to unify Taiwan with the mainland, restore lost and disputed maritime territories, protect China's maritime resources, secure major SLOCs in times of war,

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[49] Nan Li, "The Evolution of China's Naval Strategy and Capabilities …, 116.
[50] Ronald O'Rourke, "China's Forces for Influencing events in the Asian-Pacific Region," Testimony before the House Armed Services Committee Seapower and Projection Forces Subcommittee, "U.S. Asia-Pacific Strategic Considerations Related to PLA Naval Forces" hearing, Washington, DC, 11 December 2013.
[51] Nan Li, "The Evolution of China's Naval Strategy and Capabilities …, 120.

deter and defend against foreign aggression from the sea, and achieve strategic nuclear deterrence."[52] In other words, the navy now needed to be able to operate anywhere within the first island chain, be able to secure and hold water space within that region and then prevent an enemy from using or taking that space back from them.

In terms of naval theory, especially as espoused by the iconic Alfred Thayer Mahan, this is called "command of the sea."[53] Today Mahan's term has been largely replaced with the term "control of the sea", or sea control, and also includes not only the surface and sub-surface waters of the area, but also the air (and increasingly the space) above it.[54] While sea control denotes a navy's ability to completely dominate in an area, a third term, sea denial, denotes a navy's (usually a less powerful one) attempts to deny an opponent the ability to use an area, or certain portions of it, for its own use and objectives for a certain period of time.[55]

Sea control within the first island chain, or at least the ability to exert sea denial over certain parts of it for certain contingencies, was what China was now seeking and this, while not necessarily an Imperialistic or far-flung aggressive strategy, was certainly a much more offensive strategy.[56] As Richard Fisher has noted, this period can be classified as a "catch-up" phase of Chinese naval modernization, where China had realized its deficiencies and sought to catch-up in order to become a powerful navy.[57] This became especially true after the 1996 Taiwan Strait Crisis, when the U.S. Navy

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[52] Ibid., 118.
[53] Geoffrey Till, *Seapower: A Guide for the Twenty-First Century* (London: Frank Cass Publishers, 2004), 148.
[54] Sam J. Tangredi, *Anti-Access Warfare: Countering A2/AD Strategies* (Annapolis: Naval Institute Press, 2013), 36.
[55] Ibid.
[56] Larry M. Wortzel, *The Dragon Extends its Reach: Chinese Military Power Goes Global* (Washington: Potomac Books, 2013), 49.
[57] Richard D. Fisher Jr., *China's Military Modernization: Building for Regional and Global Reach* (Stanford: Stanford University Press, 2010), 67.

successfully sent two carrier battle groups to the region to deter Chinese harassment of Taiwan.[58]

Throughout the 1990s and the first decade of the 2000s, China made significant steps to replace its older and less advanced surface, sub-surface and aeronautical platforms with modern and advanced models.[59] It did this in a methodical, but steady manner by only building and commissioning very small numbers (usually between 1 and 4) of any new class of vessel at any one time and then quickly learning what its strength and weakness were so that they could build a new group of vessels based on the lessons learned.[60] This methodology also allowed them to more quickly introduce new technological advances into their fleet than would have been the case if they had maintained large numbers of individual classes over a long life-cycle.[61] While this resulted in an odd mixture of new and old vessels, as well as a mixture of domestic and foreign technology, across their fleet structure, this allowed them to advance their over-all capabilities extremely fast and to do so without wasting too much money or other resources.

During this period, these advances were focused on developing platforms and a resultant force structure that could meet the objectives of the "near-seas" strategy, and while there was a seemingly obsessive focus on developing the ability to prevent the U.S. (or any other foreign navy) from interfering in any Chinese campaign against Taiwan, [62] this did result in a much more balanced, sophisticated and capable navy able

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[58] James C. Bussert and Bruce A. Elleman, *People's Liberation Army Navy: Combat Systems Technology, 1949-2010* (Annapolis: Naval Institute Press, 2011), 176.
[59] Ronald O'Rourke, "PLAN Force Structure: Submarines, Ships and Aircraft," in *The Chinese Navy: Expanding Capabilities, Evolving Roles*," ed. Phillip C. Saunders, Christopher Yung, Michael Swaine and Andrew Nien-Dzu Yang, 141-173 (Washington, DC: National Defence University Press, 2011), 141.
[60] Bernard Cole, *The Great Wall at Sea*…, 100.
[61] Ibid.
[62] Nan Li, "The Evolution of China's Naval Strategy and Capabilities …,119.

to operate throughout the first island chain and across a much broader spectrum of operations.[63] Nan Li, a professor from the U.S. Naval War College, has commented that the "near-seas" strategy did "…translate into capabilities that are more or less appropriate for accomplishing the objectives of such a strategy."[64] The leadership of the CCP clearly agreed, because in 2001 they announced that China was to shift to the "far-seas operations" phase of modernization.

Far-Sea Operations

Jiang Zemin, Deng Xiaoping's successor as China's leader, announced in a December 2001 speech that the PLAN should begin to think about implementing capabilities for far-seas operations.[65] In 2002, Jiang's successor, Hu Jintao, not only reiterated Jiang's remarks, but also set a more urgent tone when he said that the PLAN needed to *transition* to far-seas capabilities.[66] Then, in 2004, Hu made what has been called the New Historic Missions speech wherein he called on the PLA to be able to operate on a global scale by ensuring the safety of China's overseas workers, interests and presence and be able to participate in international-security activities, including war-fighting.[67] As Michael McDevitt and Frederic Vellucci have said, this was the first time that "…the PLA [and the PLAN with it] was assigned responsibilities well beyond China and its immediate periphery."[68]

[63] Ibid., 121.
[64] Ibid., 134.
[65] Ibid., 129.
[66] Ibid.
[67] Michael McDevitt and Frederic Vellucci, "Two Vectors, One Navy," *U.S. Naval Institute Proceedings* Vol. 137/4/1,298 (April 2011): 33.
[68] Ibid.

In line with this direction from the CCP leadership, there was a rapid expansion in both the modernization efforts and in its pace.[69] There are differences of opinion on how much of a transition the PLAN has actually made from a "near-seas" navy to a "far-seas" or a blue-water navy, with all its implied capabilities, but the PLAN has been deploying further and further away from the first-island chain and doing so more often since the end of the last decade, beginning with the 2008 deployment to the Gulf of Aden and continuing right up to this year's international Rim of the Pacific exercise off Hawaii.[70] At the very least, the PLAN is currently somewhere between a regional open-ocean force and a true global blue-water force, but it is this most recent strategy of "far-seas operations" and its associated phase of modernization that has led to the PLAN's current capabilities and Order of Battle.

Conclusion

As has been shown, China's naval modernization process has been made up of three main phases. Each of these phases had a specific strategic framework and logically built upon the previous one until China has reached its current level of capabilities. Pivotal to this process was the intellectual contributions of Admiral Liu Huaqing, who has been called the "father" of the modern Chinese navy, and whose strategic outline is still being followed today.[71] Without this outline, and the political will of Deng Xiaoping, it is doubtful that China would enjoy its current capabilities.

[69] Nan Li, "The Evolution of China's Naval Strategy and Capabilities …, 121.
[70] Gao Xiaoxing, *The PLA Navy*,…141.
[71] FoxNews.Com, "The Father of the Modern Chinese Navy Liu Huaqing Dies," last accessed 07 August 2014, http://www.foxnews.com/world/2011/01/14/father-modern-chinese-navy-liu-huaqing-dies/.

CHAPTER TWO – CURRENT CAPABILITIES

Introduction

Chapter II will discuss the current capabilities of the PLAN and, to a certain degree, its sister services of the People's Liberation Army Air Force (PLAAF) and the Second Artillery Service. These other services will be touched upon, because their capabilities are used to support and augment PLAN capabilities and without an understanding of these contributing services one cannot get a full picture of the PLAN. This question of current capabilities is extremely important, because without this knowledge one cannot understand what the PLAN can do, where it can do it and where on their pre-set time-lines they are and, therefore, cannot draw conclusions about the implications of China's naval capabilities for the security environment of the region.

Order of Battle

According to a 15 July 2014 Congressional Research Service Report to the U.S. Congress the Chinese 2014 Order of Battle is as follows: "5 Nuclear-powered attack submarines, 51 diesel-powered attack submarines, 1 aircraft carrier, 24 destroyers, 49 frigates, 8 corvettes, 85 missile-armed coastal patrol craft, 29 amphibious Landing Ship Tank (LST) and Landing Platform Dock) ships, 28 amphibious Landing Ship Medium (LSM) ships, 40 mine warfare ships, 250 minor auxiliary and support ships, 145 land-based maritime strike aircraft, and 34 helicopters."[72] Of note, the aircraft numbers do not include those of the People's Liberation

[72] United States Congress, "China Naval Modernization: Implications for U.S. Navy Capabilities – Background and

Army Air Force (PLAAF), which are estimated to be approximately 2,800, and could easily support PLAN operations within the first and second island chain.[73] Similarly, the ship numbers do not include those of the so called "five Dragons", the combined civilian maritime law-enforcements agencies of the State Oceanic Administration, which are armed and could also support or integrate with PLAN operations within the first island chain.[74] Ronald O'Rourke, in a statement before Congress, addressed other non-PLAN assets that add to capabilities when he remarked that the PLAN was also able to utilize "land-based anti-ship ballistic missile (ASBMs), land-based surface-to-air missiles (SAMs), land-based air force aircraft armed with anti-ship cruise missiles (ASCMs), and land-based long-range radars for detecting and tracking ships at sea."[75]

Even without the platforms of these other services, it is predicted that if the current rate of expansion continues the PLAN will "…surpass the U.S. Navy in size by 2020."[76] This prediction could come to pass at an even earlier date if the U.S. continues with its current policy of defence budget cuts and force structure reduction.[77] More important than numbers, however, is capabilities and, much like the earlier Chinese navy, a large, but incapable force can be destroyed by a smaller, but capable force. According to the U.S. Office of Naval Intelligence (ONI) approximately 70 per cent of the current Chinese fleet is classified as "modern" (meaning similar to U.S. capabilities), with this projected to reach 85 per cent by 2020.[78] In addition, the

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Issues for Congress" (Washington: Congressional Research Service, 2014), 46.
[73] United States Department of Defense, "Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2014" (Washington: Office of the Secretary of Defense, 2014), 9.
[74] Jim Thomas, " Statement before the House Armed Services Committee Seapower and Projection Forces Subcommittee," Testimony before the House Armed Services Committee Seapower and Projection Forces Subcommittee, "U.S. Asia-Pacific Strategic Considerations Related to PLA Naval Forces" hearing, Washington, DC, 11 December 2013
[75] Ronald O'Rourke, "China's Forces for Influencing events in the Asian-Pacific Region,"….
[76] Jim Thomas, " Statement before the House Armed Services Committee Seapower and Projection Forces Subcommittee,"….
[77] United States Congress, "China Naval Modernization…, 51.
[78] U.S. Office of Naval Intelligence, "PLA Navy Orders of Battle 2000-2020" (Washington: U.S. Department of

ONI, states that even though the over-all fleet numbers are remaining roughly the same, or have even decreased, that the Chinese have been "…rapidly retiring legacy combatants in favour of larger, multi-mission ships, equipped with advanced ant-ship, anti-air and anti-submarine weapons and sensors…" and has ended up with much greater capabilities as a result.[79] Moreover, unlike in the 1990s and early 2000s, when foreign acquisitions was a source of both hulls and technology, the vast majority of the current fleet is made up of domestic designs, domestically produced hulls and domestically produced technology.[80] The following sections will provide an over-view, emphasizing the most important highlights, of the current state of the various fleet components.

Surface Capabilities

China's surface capabilities cover a broad range of classes, from one air craft carrier, to destroyers, frigates, corvettes, amphibious ships, fast-attack craft, mine warfare vessels and auxiliaries, including intelligence gathering vessels and hospital ships. In addition, there are reports that construction of a cruiser has begun.[81] The vast majority of these possess sophisticated "hull designs [in the case of some classes, stealth shapes], propulsion systems, sensors, weapons and electronics", including, in the case of the *Luyang II* and *Luyang III* class destroyers as well as the *Jiangkai II* class frigate, an Aegis-type phased array radar system."[82]

Defence, 2013), quoted in United States Congress, "China Naval Modernization…, 38.
[79] Ibid., 3.
[80] United States Congress, "China Naval Modernization…, 24.
[81] Ibid.
[82] Ibid., 25.

This radar system represents a major step forward for the Chinese and gives them significant area air defense capabilities, which was previously a weakness of the surface fleet.[83]

With respect to weapons, the surface fleet is able to deploy ASCMs, LACMs, SAMs, anti-submarine missiles, torpedoes and mines.[84] In addition, the *Luyang* and *Jiangkai* classes possess the new multipurpose vertical launch system, which is able to launch any of the aforementioned missiles from the same system.[85] Finally, all classes have one variant or another of a main "artillery" armament and close-in-weapon systems (CIWS) for defence.[86]

With respect to electronics, the Chinese spent considerable time, research and resources developing the capabilities of "network-centric warfare," to great effect.[87] In the words of Larry Wortzel, a recently retired senior U.S. Intelligence Officer, the Chinese surface fleet is now able "…to data-link with AWACS, each other, their on-board helicopters, and their anti-ship missiles [, and shore]."[88] This capability is very similar to the U.S. system and gives the fleet over-the-horizon situational awareness and weapons control both within the fleet and ashore with senior commanders.[89]

One of the other major advances in the surface fleet is the operational commissioning of the aircraft carrier *Lianoning*, a re-fitted Ukrainian vessel.[90] While Liaoning has not yet embarked an air wing, and is not expected to do so until at least 2015, this represents a major move forward towards a blue-water, force-projection capability.[91] China has announced the intention to build three to four more air craft carriers, including the associated carrier battle-

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[83] United States Department of Defense, "Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2014"…, 8.
[84] Ibid.
[85] Ibid.
[86] Bernard Cole, *The Great Wall at Sea*…, 103.
[87] Larry M. Wortzel, *The Dragon Extends its Reach*…, 34.
[88] Ibid., 39.
[89] Ibid., 40.
[90] United States Department of Defense, "Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2014"…, 7.
[91] Ibid.

groups, over the next ten to fifteen years and there are reports that the keel for the first domestically built carrier has already been laid.[92]

Another major advance in the surface fleet has been the series of modern and capable replenishment auxiliary ships that have been introduced in the last few years. Now totalling five (the U.S. currently has 15), these ships allow the Chinese to re-fuel and re-supply other ships at sea and extends the fleet's range of operations considerably.[93] The speed at which these are being produced has increased in the last two years and this represents another move towards a blue-water capability. Jim Thomas, Vice-President and Director of Studies for the Centre for Strategic and Budgetary Assessments, summarizes the importance of these aggregate surface fleet advances: "Working in tandem with land-based missile forces and aircraft…" these surface assets "…could make it more difficult for foreign surface forces to approach within 200 nm of China's coast" and "…will allow China to protect its aircraft carriers and amphibious ships while pushing China's naval defense perimeter further out into the western pacific ocean."[94]

Sub-Surface Capabilities

China's sub-surface capabilities range from conventional diesel-operated submarines to nuclear operated submarines and also from ballistic missile classes to attack classes.[95] The Chinese have long considered the submarine to be one of its main weapons in deterring an opponent from interfering in its waters and, as a result, most of the submarine fleet is modern

[92] United States Department of Defense, "Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2014"…, 7.
[93] Jeffrey Lin and P.W. Singer, "A New Naval Oil Tanker Will Help The Chinese Navy Go Blue-Water," *Popular Science.Com*, last accessed 04 August 2014, http://www.popsci.com/blog-network/eastern-arsenal/new-naval-oil-tanker-will-help-chinas-navy-go-blue-water.
[94] Jim Thomas, "Statement before the House Armed Services Committee Seapower and Projection Forces Subcommittee," …,3.
[95] United States Department of Defense, "Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2014"…, 7.

and extremely capable.[96] This includes variants of an air-independent propulsion system in some of the diesel classes.[97]

With respect to weapons, the submarine fleet is able to deploy both wire-guided and wake-homing torpedoes, mines, ASCMs and LACMs.[98] With this "…ability to conduct long-range anti-ship and land-attack cruise missile strikes…they can attack surface ships and land targets outside the effective detection range of U.S. systems."[99] In fact, the new *Jin* class purportedly has the ability to deploy a submarine-launched, nuclear-armed ballistic missile that has a range of 7,400 km and represents the PLAN's "…first credible sea-based nuclear deterrent."[100] With its modern technology, mixture of classes and large size, China's submarine fleet poses a significant threat to any opponent.

Air Capabilities

China's air capabilities, whether assigned to the PLAAF or the PLAN, primarily consist of land-based fixed-wing craft, although various classes of ships have indigenous helicopters embarked.[101] Between them the PLAAF and the PLAN have nearly 3,000 aircraft, of which almost 1,900 are classified as combat types.[102] Of these combat craft, between 600 and 1,000 of all types, spread between the PLAAF and the PLAN, are considered to be up-to-date, "…with

[96] Ibid.
[97] United States Congress, "China Naval Modernization…, 9.
[98] Ibid.
[99] Jim Thomas, "Statement before the House Armed Services Committee Seapower and Projection Forces Subcommittee," …,2.
[100] United States Department of Defense, "Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2014"…, 8.
[101] Bernard Cole, *The Great Wall at Sea*…, 101.
[102] United States Department of Defense, "Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2014"…, 9.

modern avionics, sensors, and advanced air-to-air and anti-ship missiles.[103] As well as fighter and fighter-attack craft of the second, third and fourth generations, the PLAAF also operates a fleet of long-range, aerial-refuelled bombers that carry ASCMs and LACMs.[104] Another significant PLAAF and PLAN asset is China's growing number (estimates range between 280 and 1,000) of unmanned aerial vehicles (UAVs), many of which are armed.[105] Together, all these various aircraft represent the potential to swarm an opposing force from the air and saturate it with literally hundreds of anti-ship missiles. Such an attack could certainly "…overwhelm the defensive capabilities of U.S. and allied naval forces operating within their reach."[106]

In addition to these airborne systems, the PLAAF and PLAN operate a huge number of advanced SAMs from land-based positions, both fixed and mobile, which compose a robust defensive capability.[107] Finally, while not yet embarked on-board the carrier, the PLAN has developed and continues to produce numbers of a carrier-capable jet called the J-15, similar in capability to the U.S. FA-18C/C Super Hornet, in anticipation of eventually embarking an air-wing of approximately 30 aircraft aboard *Liaoning*.[108] Once embarked, these aircraft will give the PLAN a significant over-the-horizon force projection capability.

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[103] Jim Thomas, "Statement before the House Armed Services Committee Seapower and Projection Forces Subcommittee," …,3.
[104] United States Department of Defense, "Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2014"…, 9.
[105] United States Congress, "China Naval Modernization…, 35.
[106] Jim Thomas, "Statement before the House Armed Services Committee Seapower and Projection Forces Subcommittee," …,3.
[107] United States Department of Defense, "Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2014"…, 10.
[108] United States Congress, "China Naval Modernization…, 21.

Missile Capabilities

The land-based missile inventory not utilized directly by the PLAAF or the PLAN is controlled by the Second Artillery Force.[109] Like the PLAN, the Second Artillery is a separate service within the overall PLA, but much of its responsibility is to support the PLAAF and the PLAN, especially in regional activities, and it does, therefore, contribute significantly to the overall capabilities of the PLAN. [110] The Second Artillery's inventory contains both conventional and nuclear missiles.

Within its conventional missile inventory, the Second Artillery holds over 1,000 Short-Range Ballistic Missiles (SRBM) that can reach out to 1,000 km.[111] Its Medium-Range Ballistic Missile (MRBM) inventory can reach between 1,000 and 3,000 km.[112] Finally, its Intermediate-Range Ballistic Missile (IRBM) inventory can reach between 3,000 and 5,000 km.[113] The ranges of various versions of these conventional missiles are shown below in Figure 2.1.

[109] United States Department of Defense, "Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2014"…, 6.
[110]Sam J. Tangredi, *Anti-Access Warfare*…, 165.
[111] United States Department of Defense, "Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2014"…, 38.
[112] Ibid.
[113] Ibid.

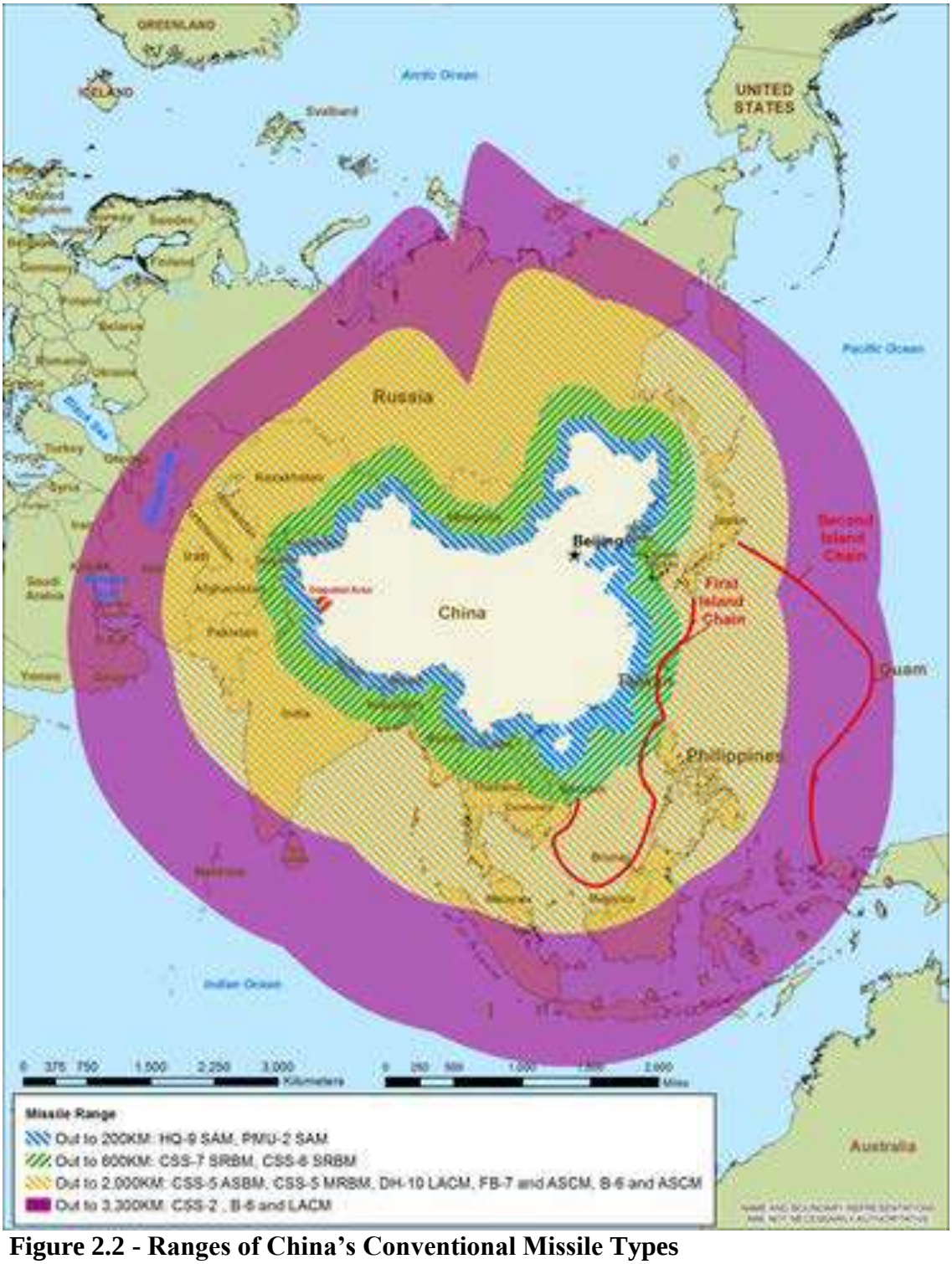

Figure 2.2 - Ranges of China's Conventional Missile Types
Source: Department of Defense, "Military and Security Developments Involving the People's Republic of China 2014", 85.

Within its nuclear missile inventory, the Second Artillery holds both fixed intercontinental ballistic missiles (ICBMs) and mobile variants.[114] The newer models can reach out to 11,200 km, making them able to hit the North American land-mass.[115] Since 2012 China has also been developing "…a new road-mobile ICBM known as the Dong Feng-41 (DF-41), possibly capable of carrying multiple independently targetable re-entry vehicles (MIRV)."[116] Being mobile, these missiles are very hard to detect and locate.[117] In addition, each missile contains up to three separately targetable nuclear warheads, making saturation attacks possible and defence much harder.[118] The ranges of various types of intermediate and intercontinental ballistic missiles are shown below in Figure 2.2. The ranges of various types of SAMs and SRBMs are shown below in Figure 2.3.

[114] Ibid., 7.
[115] Ibid.
[116] Ibid.
[117] Robert Johnson, "China's New MIRV Ballistic Missile IS A Big Deal, " *BusinessInsider.com*, last accessed 04 August 2014, http://www.businessinsider.com/chinas-df-3a-mirv-multiple-us-targets-one-missle-2012-12.
[118] Ibid.

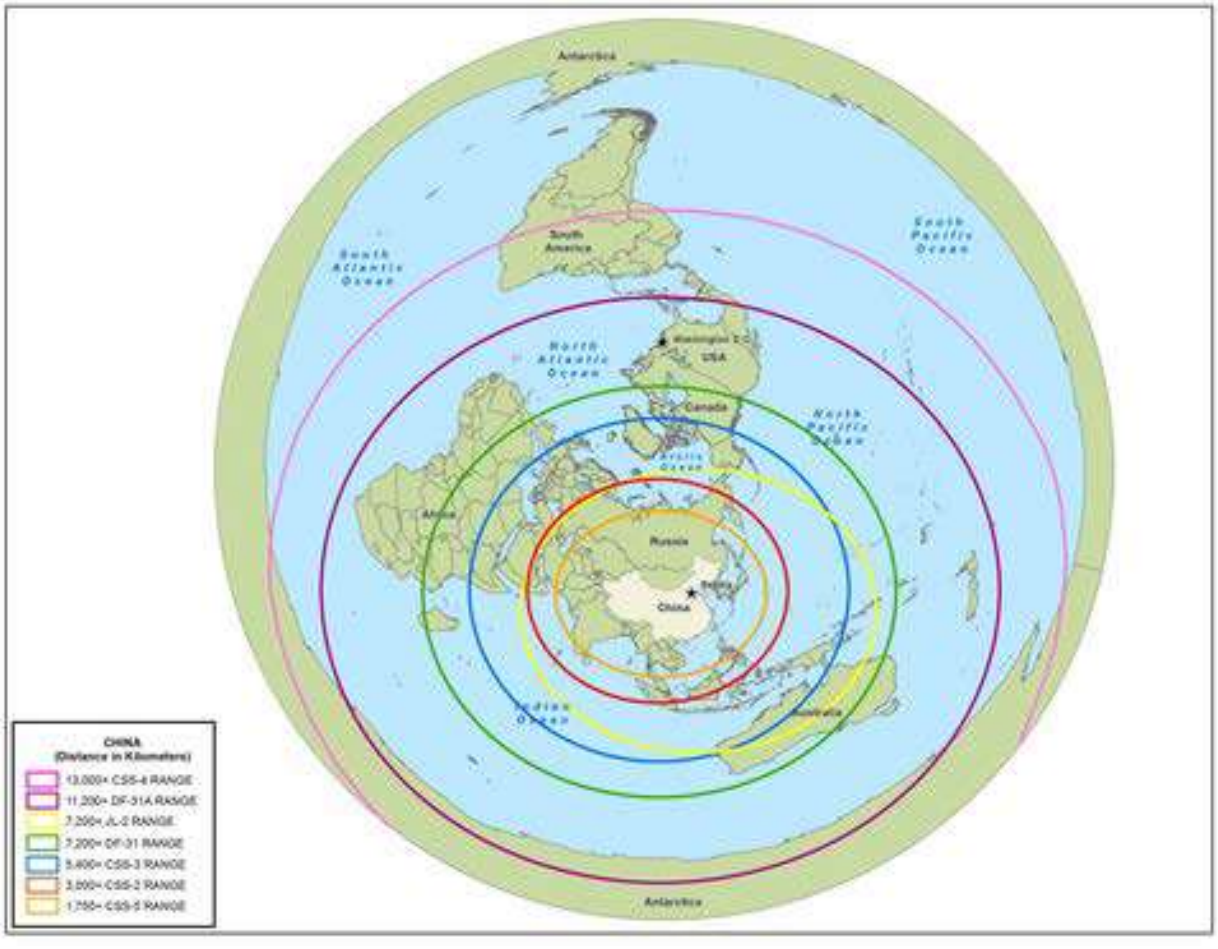

Figure 2.2 – Ranges of China's Intermediate and ICBMs
Source: Department of Defense, "Military and Security Developments Involving the People's Republic of China 2014", 86.

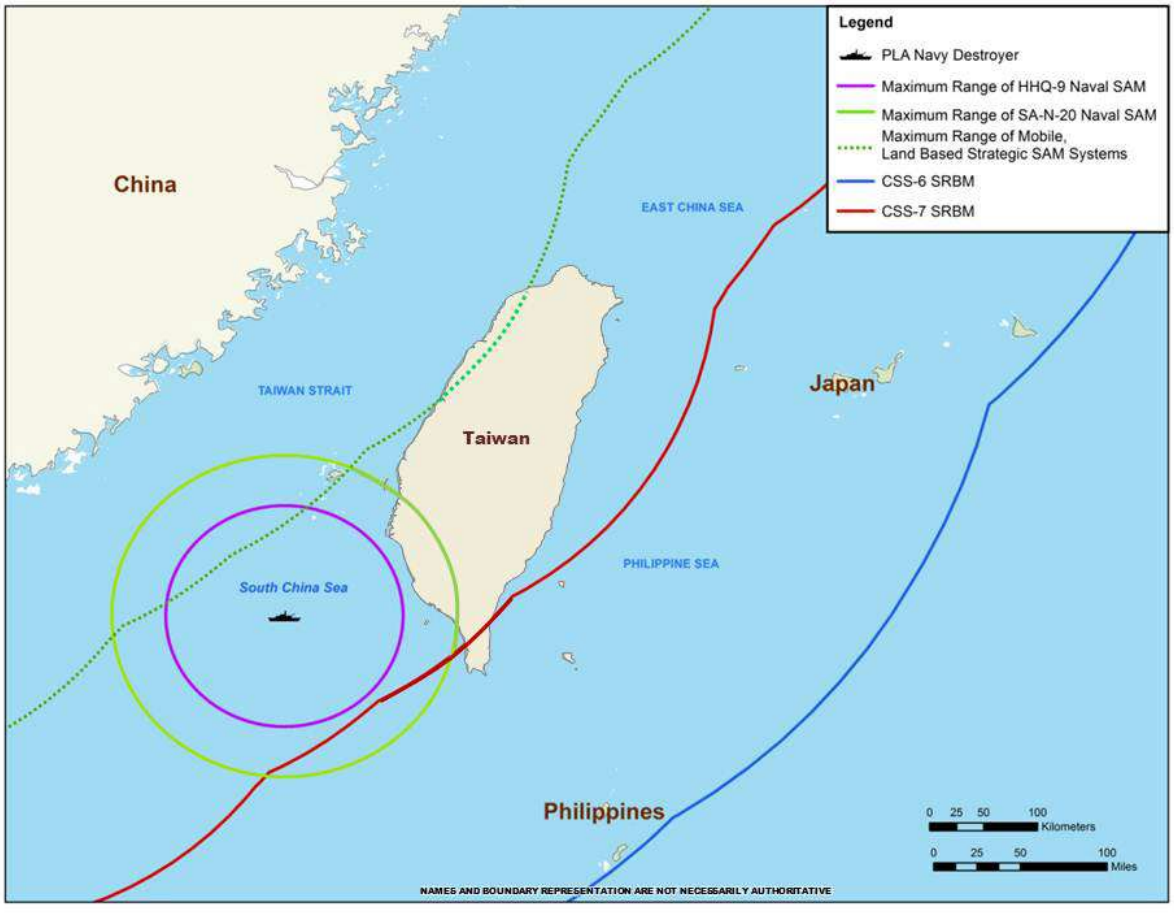

Figure 2.3 – SAM and SRBMs Ranges
Source: Department of Defense, "Military and Security Developments Involving the People's Republic of China 2014", 87.

Of particular note, in the Second Artillery's inventory are the CSS-F Mod E and the CSS-5 Mod F, normally called, respectively, the DF-21C and the DF-21D ASBMs.[119] The DF-21C, which has been in operational service since 2011, "…can deliver a 2,000-kilogram warhead to a range of at least 1,750 km with a circular error probability of less than 50 meters."[120] It was specifically designed to attack and destroy underway ships. Despite the fact that the DF-21C is a "terminally guided" missile and cannot alter from its set flight profile (and is therefore more easily intercepted), its range and accuracy of 50 meters or less would allow for saturation attacks

[119] Mark A. Stokes, "The Second Artillery Force and the Future of Long-range Precision Strike," in *China's Military Challenge*, ed Ashley J. Tellis and Travis Tanner, 127-160 (Washington, DC: The National Bureau of Asian Research, 2012).
[120] Ibid.

on any type of surface combatant, including an aircraft carrier, and could very likely overwhelm the defences of any opponent within either the second or the fist island chains.[121]

The DF-21D is an even more deadly weapon and has been called a "game changer" by many analysts.[122] While not yet in wide-spread operational service, extensive and successful testing has been conducted under partially realistic conditions and it is expected that it will be entering service in the very near future.[123] What sets the DF-21D aside from its earlier versions is that it is a manoeuvrable missile that is guided onto its target via a combination of optical sensors, radar and satellite interface, it is able to adjust its flight path according to the movements of its target or its own defensive judgement and it is able to deliver a cluster of separate warheads onto a target.[124] Such a missile is very difficult to defend against, especially if a number of them were deployed at the same time and onto a similar target --- such as an aircraft carrier.

All together then, the Second Artillery inventory represents a very clear danger to any force operating in or near the South China Sea, the East China Sea, the Yellow Sea and even into the western-pacific ocean. These weapons could make up a major part of a regional anti-access/area denial (A2/AD) strategy and could even be used to attack U.S. bases in the Asian-Pacific region.[125] It is likely that the Chinese will continue to develop these capabilities indefinitely, but in the short and near-terms they could act as a way of compensating for some of the older and less modern capabilities in their arsenal until such time that they have completed their modernization process.[126]

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[121] Ibid.
[122] United States Congress, "China Naval Modernization…, 4.
[123] Ibid.
[124] Ibid.
[125] Sam J. Tangredi, *Anti-Access Warfare*…, 163.
[126] Mark A. Stokes, "The Second Artillery Force…, 154.

Long-standing Weaknesses and Recent Developments

As was noted in the introduction to this paper, many analysts, while expressing admiration for China's modernization efforts, have also pointed out many remaining weaknesses. For the most part these analysts have agreed with each other on the most common weaknesses, which include a lack of: an area-air defence capability; a antisubmarine warfare capability; integration between shipboard, airborne and shore-based systems; experience deploying and controlling large formations of warships in near and distant waters as well as joint training and exercises; a credible mine-counter measures capability; an effective maintenance and supply culture and, finally, combat experience in the current generation of leaders.[127] While these were credible weakness up to the end of the last decade, China has under taken a number of efforts within the last three to four years to address them and although there are some areas that still lag behind U.S. capabilities, the gap has closed significantly in some and has been eliminated in others.

With respect to a lack of area air defence, it has already been shown that the 10 new destroyers (the *Luyang-II* and *Luyang-III* classes), which were put into operational service between 2010 and 2014, and the 12 new frigates (the *Jiangkai-I* and *Jiangkai-II* classes), which were put into service between 2008 and 2014, have virtually removed this weakness. As was earlier cited, these classes all possess American-style Aegis-like phased-array radar systems, American-style data links systems, close-in-weapons systems and surface-to-air (SAM) missiles to provide an area-air defence umbrella for themselves and the fleet. It is also interesting to note that China seems to have partially abandoned its traditional practice of building small batches of classes and has begun producing these new destroyers and frigates in large numbers, which

[127] Bernard Cole, *The Great Wall at Sea*…, 192-197.

seems to indicate that they may have decided that these vessels will be the base models for their newly modernized fleet.[128] For example, there were 17 of these new and advanced surface combatants commissioned in 2013 alone.[129]

With respect to a lack of anti-submarine capability, these same destroyers and frigates, with anti-submarine torpedoes, anti-submarine missiles, anti-submarine helicopters, towed-array sonars and advanced hull-mounted sonars, make a huge step forward in eliminating this weakness.[130] In addition to these platforms, the new corvettes (really light frigates), with their anti-submarine torpedoes, anti-submarine rocket thrown depth charges, hull-mounted sonars and towed-array sonars, are another major weapon in rectifying this weakness.[131] In addition, a new class of Maritime Patrol Aircraft (MPA) with re-fuelling and Magnetic Anomaly Detection (MAD) capability has been produced and was put into service in 2012.[132] Finally, China has developed and "…deployed fixed ocean-floor acoustic arrays off its coast with the intent to monitor foreign submarine activities in the 'near seas.'"[133] With these new capabilities, China has gone a long way to eliminating its anti-submarine warfare weaknesses both close to home and in open waters.

With respect to a lack of integration between shipboard, airborne and shore-based systems, it has already been cited that this capability now exists between China's newer surface platforms, aircraft and shore based Command and Control centres, so this weakness has begun to be eliminated and certainly will be almost entirely in the near future as the older platforms are phased out in exchange for increasing numbers of the newer platforms. This capability has also

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[128] James R. Holmes and Toshi Yoshihara, "Hardly the First Time," *U.S. Naval Institute Proceedings* Vol. 139/4/1,322 (April 2013): 25.
[129] Dale C. Reilage, "Fit to Fight…, 51.
[130] Lyle Goldstein, "Beijing Confronts Long-Standing Weaknesses in Anti-Submarine Warfare*," China Brief: A Journal of Analysis and Information* Volume XI Issue 14 (July 2011): 15.
[131] Ibid.
[132] Ibid.
[133] Lyle Goldstein and Shannon Knight, "Wired for Sound in the 'Near Seas,'" *U.S. Naval Proceedings* Vol. 140/4/1,334 (April 2014): 57.

been enhanced by the introduction of a squadron of state-of-the-art Airborne Early Warning Command and Control (AEWC&C) aircraft and numerous UAVs.[134] Intelligence analysts even assert that these platforms are a full generation ahead of their U.S. counterparts.[135] Finally, China has deployed its own Global Positioning System (GPS) and an entire series of global surveillance satellites, which, in conjunction with land-based over-the-horizon radars and land-based over-the-horizon surface wave radars, provide long-range early warning detection and precision strike capabilities.[136] Within the last four to five years, therefore, China has, in fact, developed a first class command, control, communication, computers, intelligence and reconnaissance (C4ISR) system.

With respect to both a lack of experience deploying and controlling large formations of warships and a lack of joint training, this does remain a weakness when compared to western militaries, but China has been deploying larger and larger task groups farther and farther away from home and has begun to conduct larger and larger joint exercises, all of which is resulting in substantial headway in this regard.[137] One example is the 2013 MANEUVER-5 exercise in the Philippine Sea that marked the very first time all three Chinese fleets deployed and trained together as one mass fleet.[138] Another example is the MISSION ACTION group of exercises in 2013 that combined ground, naval and air forces in very large scale scenarios.[139] Another is China's participation in the 2014 international Rim of the Pacific exercise off Hawaii. While

[134] Shane Bilisborough, "China's Emerging C4ISR Revolution," *The Diplomat*, last accessed 05 August 2014, http://thediplomat.com/2013/08/chinas-emerging-c4isr-revolution/.
[135] Ibid.
[136] Ibid.
[137] United States Congress, "China Naval Modernization…, 34.
[138] United States Department of Defense, "Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2014"…, 12.
[139] Ibid.

China can be categorized to be in a learning phase when it comes to fleet manoeuvring, this is a skill that, in the estimation of some of the leading sinologists, they are quickly catching up on.[140]

With respect to a lack of a credible mine-counter measures capability, this does remain a serious weakness. On the one hand, this may seem to be a strange situation given that China has expended considerable research and resources building one of the world's largest and most sophisticated mine inventories and mine deployment capabilities.[141] On the other hand, however, it may be that they have focused so much on the A2/AD potential of mines in their coastal and near seas that they have decided that their own vessels were unlikely to face a mine threat in those waters themselves. Whatever the reason, they have done little to develop a mine-countermeasure capability other than build a single, simple and unremarkable class of mine-countermeasures vessel. This may be a weakness that an opponent, such as the U.S., may be able to exploit.[142]

With respect to a lack of an effective maintenance and supply culture, China introduced major reforms to its maintenance management and its supply procedures in 2011 that have gone a very long way to eliminating this weakness.[143] These reforms affected not only support ashore while in home port, but also affected the culture of support to deployed units ashore and underway, including an emphasis of effective support while in combat and under attack.[144] These reforms have been so successful that U.S. Navy Captain Dale Rielage recently made the comment, "There are no signs that maintenance poses a significant limitation on current Chinese surface-force operations."[145]

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[140] Andrew S. Erikson and Austin M. Strange, "Learning the Ropes in Blue Water," U.S. Naval Proceedings Vol. 139/4/1,322 (April 2013): 35.
[141] Scott C. Truver, "Taking Mines Seriously: Mine Warfare in China's Near Seas," *Naval War College Review* Vol. 65, No. 2 (Spring 2012): 59.
[142] Ibid.
[143] Dale C. Reilage, "Fit to Fight…, 51.
[144] Ibid., 54.
[145] Ibid., 55.

With respect to a lack of combat experience, there really is not anything the Chinese can do about this short of starting a conflict specifically to build this type of experience, which no reasonable leader would do. Whether this really constitutes a true and credible weakness however is debatable. It could be said that in comparison to American naval leaders, there is probably a distinct lack of combat experience on the part of the Chinese, but in reality the same could be said of the Royal Canadian Navy and many other western navies. In the end, good training, strong discipline and effective capabilities are what matters, not actual combat experience, which would be obtained quickly when and if the time came.

Conclusion

As has been shown, China has successfully conducted a rapid and astounding programme of modernization over the last twenty to thirty years. The pace of this modernization increased significantly in early 2000 and, once again, in 2010. Since 2010 many long-standing weaknesses have been eliminated. While the PLAN currently remains a mixture of older and newer platforms as well as older and newer technology, the result of this modernization has been a sophisticated and capable regional navy that is increasingly executing more complex open-ocean and over-seas deployments. While it could be argued that the PLAN is not yet, and may never be, a true blue-water force in the sense of a U.S.-style *global* navy, this chapter has shown that it has already developed the capabilities to severely impede the freedom of movement of the U.S. Navy within the first and second island chains and this fact has important implications for the regional security environment.

CHAPTER III – MODERNIZATION FACTORS: THE WHEN AND THE WHY

Introduction

Chapter III will discuss what factors drove, or did not drive, Chinese naval modernization at various periods of time since 1949. This reveals why they feel their set goals are important and why they want to pursue them. While this topic overlaps with the topic of Strategic Framework and could have arguably been discussed alongside that topic in Chapter I, it was decided to separate the topics into two Chapters in order to highlight their individual importance and to focus on each without interfering thought lines. As will be shown, a number of factors constrained modernization and kept its pace slow until approximately 1990 when Mao's successor, Deng Xiaoping, made a conscious decision to seriously pursue modernization. After his retirement and subsequent death, a number of factors convinced his successors that modernization should continue and even speed up. An understanding of this is important, because the fact that his successors chose to continue modernization shows that this was not just the vision of one man, but was critical to Chinese national interests, ambitions and goals.

Factors from 1949 to 1980

As was discussed in Chapter I, the Chinese navy of the 1950s and 1960s was primarily a coastal defence force. In 1949, when the Communist Party officially came to power, their Kuomintang (KMT) enemy in the civil war had fled to Taiwan and established itself there as the Republican government of China. From Taiwan, the United States supported Republic of China

(ROC) raided the Chinese coast, harassed traffic in the Taiwan Strait and threatened to invade the mainland.[146]

Fearful of such an invasion by either U.S. or ROC forces, but not yet ready to invade Taiwan and still very army centric in both mind-set and strategic thought, Mao and his lieutenants hastily set up "…a defensive force that would be inexpensive to build and quickly manned and trained."[147] Most of the original equipment and technical training came from the Soviet Union, where senior Chinese leaders were sent to learn about naval issues, tactics and strategy.[148] While this assistance did allow the fledgling PLAN to move forward and while Mao remained determined to invade Taiwan in order to reunify it with the mainland, he also remained thoroughly wedded to his army-centric idea of "people's war" as described in Chapter I.[149] The fact that Soviet doctrine of the time, under The Young School of thought, also "…emphasized coastal defense by a navy of small surface craft and submarines" re-enforced Mao's ideas and the PLAN remained focused on the "near-coast" strategic framework.[150]

The Korean War from 1950 to 1953 was largely a land and air war and did little to change Mao's perspective, but it did convince him of the necessity for nuclear capabilities; thus, China began to expend great resources trying to develop nuclear missiles and submarines, which consequently deprived the PLAN of any resources it might have gotten during this period and, other than submarines, no substantial progress was made towards modernization.[151] The 1959 to 1964 break from the Soviet Union, fuelled to a large degree by what historian Odd Arne Westad calls Mao's increasing "…radicalism and eccentricity…", potentially offered the PLAN an

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[146] Bernard Cole, *The Great Wall at Sea*…, 7.
[147] Ibid.
[148] Bernard Cole, "More Red than Expert: Chinese Sea Power during the Cold War," in *China Goes To Sea: Maritime Transformation in Comparative Historical Perspective*, ed. Andrew S. Erickson, Lyle J. Goldstein, and Carnes Lord, 320-340 (Annapolis: Naval Institute Press, 2009), 323.
[149] Ibid.
[150] Ibid., 322.
[151] Ibid., 325.

excuse for modernization in the face of sudden fears of a Soviet invasion of China.[152] However, the twin disasters of Mao's Great Leap Forward (a radical change in economic policy) and the Great Proletarian Cultural Revolution (an attempt to purge China's political and intellectual communities of any opposition to him) created economic, political and cultural chaos during which no attention or resources were available for the PLAN.[153] As a result, while the PLAN shifted to a modified concept of "people's war under modern conditions" in order to defend against a possible Soviet invasion, as described in Chapter I, no major leaps forward were made and the PLAN remained primarily a coastal defence force.

The chaos, tensions and repercussions of the Great Leap Forward and the Cultural Revolution took many years (well into the late 1970s) to settle down, even after Mao himself pulled back from his earlier fervour and enthusiasm for these policies.[154] After Mao's death in 1976, this chaos was maintained when a power struggle began between the radical branch of the CCP, nominally headed by Mao's chosen successor, Hua Guofeng (who would have likely carried on in a Maoist model) and the moderate branch, headed by Deng Xiaoping (who had previously been purged by Mao and was living in the south of China in a form of political exile).[155] In 1980 Deng Xiaoping, with the support of the military, emerged as the victor and almost immediately set into place economic and modernization reforms that are largely responsible for the growth and success that China enjoys today.[156]

As was previously discussed however, these reforms did not immediately result in a programme of modernization for the PLAN and, instead, Deng initially re-emphasized the costal defence role of the navy. There were three main factors that motivated Deng to maintain Mao's

[152] Odd Arne Westad, *Restless Empire: China and the World since 1750* (New York: Basic Books, 2012), 333.
[153] Ibid.
[154] Ibid., 361.
[155] Ibid., 371.
[156] Ibid., 372.

older stance towards the navy. The first of these was China's poor performance in the 1979 war with Vietnam.

During this land-based border conflict, Chinese analysts, including Deng himself, concluded that the army had performed poorer than they should have, resulting in Deng's description of the army as, "…overstaffed, lazy, arrogant, ill-equipped, and ill-prepared to conduct modern warfare."[157] Because of this assessment, Deng felt that it was more important to first reform and modernize the army before turning attention to the PLAN.[158] At the very least, though, such a move helped to prepare both China's political leaders and its public for such a modernization effort and, in the end, this helped ease resistance to the idea of PLAN modernization once the time came to re-focus efforts there.

The second factor was the weak and under-developed state of China's military-industrial complex at the time.[159] Still recovering from the effects of the Great Leap Forward and the Cultural Revolution, China's military research & development institutions and industrial production facilities, such as shipyards, were not yet up to the task of modernizing a technologically intensive service such as the navy, therefore Deng and his advisors felt it would be more appropriate to start with the army and then to focus on the navy once these capabilities had advanced further.[160] Once again, this move did benefit the navy in the long run.

The third factor was the Cold War. By this time the U.S. and the Soviet Union had balanced and checked each other from making any large or bold military moves and this fact

[157] Deng Xiaoping, "Speech at an Enlarged Meeting of the Military Commission of the Party Central Committee," 14 July 1979, in Joint Publications Research Service, China Reports, No. 468 (31 October 1983): 14-22, quoted in Bernard Cole, "More Red than Expert…, 331.
[158] Bernard Cole, "More Red than Expert…, 329.
[159] Ibid.
[160] Ibid.

almost entirely removed the perceived threat of a soviet invasion from seaward. This meant that China could wait to modernize its navy and focus on reforming its army first.[161]

Factors from 1980 to 1990

Despite this waiting period and the public statements about the role of the navy, Deng and Liu Huaqing, who had known each other for many years and enjoyed a close relationship, were aware of the importance of the navy and had a larger concept in mind for the PLAN.[162] Both men realized that Deng's economic reforms would concentrate a large portion of the new economic activities on the coasts and ports and both realized that future conflicts, especially with a weakening (and later fallen) Soviet Union, would be smaller and more localized, which required a strong navy.[163] They also realized that as well as building up the actual industrial capacity (shipyards and shipbuilding competency) required for modernization that political leaders, military leaders and the public needed to acquire a "…maritime consciousness…" and shift from army-centric thinking before there would be wide-spread support for naval modernization.[164]

During the 1980s, therefore, there were some moderate upgrades to the PLAN fleet, but nothing that could be compared to the advances made since 1990. Instead, this period was used as an opportunity to lay the material and structural groundwork for modernization and to build the intellectual framework under which it would proceed.[165] Besides promulgating the island chain strategy described in Chapter I, Liu also made important advances in "…reorganizing the

[161] Ibid.
[162] Nan Li, "The Evolution of China's Naval Strategy and Capabilities …, 124.
[163] Bernard Cole, "More Red than Expert…, 330.
[164] Nan Li, "The Evolution of China's Naval Strategy and Capabilities …, 124.
[165] Bernard Cole, "More Red than Expert…, 331.

navy, re-establishing the Marine Corps, upgrading bases and research and development facilities, and restructuring the navy's school system."[166] Deng, meanwhile, continued the process of building up China's economy and strengthening its industrial capacity, both of which provided the wherewithal for major naval modernization in the 1990s and 2000s.

Factors from 1990 to the Present

The current phase of naval modernization, then, was a very conscious decision and the process was started by Deng and Liu. While they started to initiate and lay the groundwork for it in the 1980s, it did not truly begin in earnest until 1989 or 1990, which is the time many commentators cite as the official start of modernization.[167] The fact that this process has subsequently been supported and continued by Deng and Liu's successors, rather than disappearing with their retirements and then deaths, shows that its leaders realize the importance of the navy for China and its future. There are a number of factors that have fed this continuation and these are discussed in the sub-sections below.

Economic Factors

The economic transformation of China has been truly astounding and has had some serious implications for its security issues and potential military requirements. Now the world's second largest economy, much of its economic activity, upwards of 70 per cent, is based on trade

[166] Ibid.
[167] Milan Vego, "China's Naval Challenge," *U.S. Naval Institute Proceedings* Vol. 137/4/1,298 (April 2011), 36.

with other countries and approximately 80-85 per cent of this trade is conducted by sea.[168] Similarly, China requires huge amounts of raw materials and energy resources to maintain the economic and industrial juggernaut that it has built and it imports the vast majority of its resources via shipping, which, despite attempts to develop over-land pipelines, will likely be the case far into the future.[169] With these facts in mind, it would be hard to over-state the importance that the safety and security of shipping has for China's economy and, therefore, its security.

Milan Vego, a former naval officer and long-time academic, summarizes this importance in the following way: "China's open-ocean transport routes pass through every continent and ocean, reaching more than 600 ports in over 150 nations. The most important segments of the sea routes to Chinese ports are those across the Indian Ocean and the South China Sea, which are long, exposed, and consequently vulnerable in a war."[170] While the U.S. Navy currently finds that it is in its best interests to ensure that these SLOCs remain open, China is increasingly very aware of and nervous about the fact that it is relying on the good-will and capabilities of others for this important factor of its own security, especially since China and the U.S. have contradicting interests over the issue of Taiwan.[171] But it is not just the U.S. that China is concerned about in this respect; any of the Asian nations that China has territorial disputes with could also attempt to disrupt or blockade the SLOCs and hurt China through its trade. At the same time, China must also be aware of and concerned with the effects that piracy and terrorism may have on the freedom of movement through the SLOCs.[172] Having a strong, modern, capable

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[168] Milan Vego, "Chinese Shipping Could be Risky Business," *U.S. Naval Proceedings* Vol. 140/4/1,334 (April 2014), 39.
[169] David Pietz, "The Past, Present and Future of China's Energy Sector," in *China's Energy Strategy: The Impact on Beijing's Maritime Policies*, ed. Gabriel B. Collins, Andrew S. Erickson, Lyle J. Goldstein and William S. Murray, 36-60 (Annapolis: Naval Institute Press, 2008), 55.
[170] Milan Vego, "China's Naval Challenge…, 39.
[171] Carl Otis Schuster, "China: Its maritime traditions and navy today…, 58.
[172] M. Taylor Favel and Alexander Liebman, "Beyond the Moat: The PLAN's Evolving Interests and Potential Influence," in *The Chinese Navy: Expanding Capabilities, Evolving Roles*, ed. Phillip C. Saunders, Christopher Yung, Michael Swaine, and Andrew Nien-Dzu Wang, 41-80 (Washington, DC: National Defense University Press,

and blue-water navy is the only way China can assure the security of these SLOCs without reliance on others.

It is not just the SLOCs themselves, however, that are a concern. China is increasingly investing in over-seas ventures covering a broad range of activities, from oil-fields, mining enterprises and technology companies, and, as a consequence, has thousands of Chinese nationals working over-seas.[173] China needs to be able to protect both the infrastructure of these investments and the workers employed at them. A strong, modern, capable and blue-water navy is required to project force into these areas, transport troops if required and to evacuate workers, as China did in 2011 when the PLAN evacuated 36,000 nationals from war-torn Libya.[174]

Closer to home, China is concerned with protecting its interests in its Economic Exclusion Zone (EEZ) and in its numerous territorial disputes within the near seas. These include: "Taiwan, Senkaku/Diaoyu Islands and the location of overall maritime boundary with Japan, Paracel Islands and surrounding waters with Vietnam, Spratly Islands and surrounding waters in the South China Sea with Taiwan, Vietnam, the Philippines, Brunei, and Malaysia, maritime border with Vietnam, and fisheries areas and quotas with North Korea, South Korea, Japan, Vietnam, and the Philippines."[175] While these certainly have other aspects to them, such as political and historical/cultural, which will be discussed in later sections, these disputes clearly have an economic factor to them as well.

2011) ,64.

[173] Eliza M. Johannes, "Colonialism Redux," *U.S. Naval Institute Proceedings* Vol. 137/4/1,298 (April 2011), 60.

[174] Andrea Ghiselli, "Could Iraq Be Another Libya for China?," *The Diplomat*, last accessed 08 August 2011, http://thediplomat.com/2014/06/could-iraq-be-another-libya-for-china/.

[175] Daniel M. Hartnett and Frederic Vellucci, "Toward a Maritime Security Strategy: An Analysis of Chinese Views Since the Early 1990s," in *The Chinese Navy: Expanding Capabilities, Evolving Roles*," ed. Phillip C. Saunders, Christopher Yung, Michael Swaine and Andrew Nien-Dzu Yang, 81-108 (Washington, DC: National Defence University Press, 2011), 86.

All the nations involved in these disputes are concerned with and trying to secure the large hydrocarbon deposits that are estimated to be in these areas.[176] This is of particular interest to China, which needs to reduce its dependence on imports of oil and gas and build-up domestic reserves of these resources for periods of crisis.[177] Similarly, the fish and other food stocks in these areas are becoming increasingly important to China as the industrialization of the nation is taking away arable land used for food production.[178]

These economic factors have serious implications for China's security and well-being. Connected to both the near and the more distant seas as they are, these economic factors highlight the requirement for a strong, modern, capable and blue-water navy to safe-guard China's interests. This is clearly understood by China's leaders and is one set of factors driving the continuation of naval modernization.

Political and Strategic Factors

Politically the CCP faces one over-riding fact: its legitimacy with the Chinese people depends on continued economic growth and appearing strong enough to protect China's interests locally and abroad.[179] Above all else, the Chinese psyche abhors chaos and instability and a strong government is seen as the protector of that stability.[180] Tom Doctoroff, a marketing executive who has worked in China for many years and has closely studied the Chinese people, remarks that "…the Chinese are, first and foremost, reliant on the Communist Party to maintain order…" and "…because they define the government's primary role as the advancement of

[176] Peter Howarth, *China's Rising Sea Power*…, 28.
[177] M. Taylor Favel and Alexander Liebman, "Beyond the Moat…, 55.
[178] Ibid., 62.
[179] Tom Doctoroff, *What Chinese Want: Culture, Communism, and China's Modern Consumer* (New York: Palgrave MacMillan, 2012), 151.
[180] Ibid.

national interests rather than protection of individual rights…" they will accept the authoritative government as long as it protects those interests.[181]

As China continues to grow and expand its activities on the international stage, there is also a deepening sense of intense nationalism within the Chinese people and this nationalism increases the importance in the people's minds of an assertive and strong government.[182] Once again, as Tom Doctoroff says, "Strong government is necessary to assuage the classic [Chinese] middle-class fear that things could fall apart at any moment."[183] While this may seem to be a very vague and ephemeral thing, to the Chinese it is a very concrete political factor and awareness of this drives much of the political and strategic decision making at the leadership level.[184] "Because the CCP has built its legitimacy on a reputation as the righter of past wrongs…" being strong and assertive is politically necessary for the CCP's survival and a major tool for demonstrating this strength is the military.[185]

Alongside the previously discussed economic factors, this political fact is a major factor in the government's actions with respect to the various maritime territorial disputes, which Chinese officials have characterized as "core interests."[186] Most of these disputes are concentrated in the South China Seas. Based on the so-called "U-Shaped" or "nine-dashed line", China claims almost the entire area of the South China Sea (as shown below in Figure 3.1), a large portion of the East China Sea and a large portion of the Yellow Seas, in all of which, contrary to the United Nations Convention on the Law of the Sea (UNCLOS), it asserts that it

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[181] Ibid.
[182] Robert Kaplan, *Asia's Cauldron*…, 162.
[183] Tom Doctoroff, *What Chinese Want*…, 99.
[184] United States Department of Defense, "Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2014"…, 17.
[185] Zheng Wang, *Never Forget National Humiliation: Historical Memory in Chinese Politics and Foreign Relations* (New York: Columbia University Press, 2012), 190.
[186] United States Department of Defense, "Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2014"…,3.

can control shipping not only in its territorial waters, but also in the EEZ.[187] No less important in this regard is the dispute with Japan in the East China Sea (as shown below in Figure 3.2).

Figure 3.1 - China's Territorial Claims in the South China Seas
Source: Zhao, "China's Territorial Disputes in the South China Sea and East China Sea."

[187] Robert Kaplan, *Asia's Cauldron*…, 165.

Figure 3.2 - China's Territorial Claims in the East China and Yellow Seas
Source: Nathan and Scobell, *China's Search for Security*, xxiv.

The government needs to take a strong stance in these disputes and needs to be seen protecting China's interests not only to retain the territory itself, but also to appear to the Chinese people, and to the larger world, to be fulfilling its role as the authoritarian protector of the nation and the defender against chaos, whether this chaos is from within or is externally imposed. Since these are all maritime disputes, a strong, modern, capable and blue-water navy (at least a regional blue-water navy) is required to enforce China's interests and, hence, the continuation of the modernization process both within the PLAN and the civilian maritime enforcement agencies. In

fact, most commentators agree that there were two major events that convinced the leadership of the political and strategic need to further modernize its military.

The first of these was the 1991 Gulf War. Many in the Chinese military thought that the U.S. was facing a long and hard war against Iraq and were subsequently shocked by the speed and efficiency with which it defeated what was previously thought of as a thoroughly modern Iraqi force.[188] This conflict emphasized for the Chinese "…the unmatched global reach of the U.S. military as well as its technological superiority over other countries."[189] In its aftermath, the Chinese embarked on a long period of thought about the requirements of war in this new technologically advanced age and what reforms were needed within the Chinese military itself.[190]

The second event, this time one that put the Chinese in direct opposition with the U.S., was the 1996 Taiwan Strait crisis. During 1995 and 1996 the President of Taiwan, Lee Teng-Hui, had been promoting the idea of formal and official independence from China, which is something that China, with its hopes of formally reunifying Taiwan with the mainland, could not allow to continue.[191] In order to encourage Lee to back down and to encourage the Taiwanese people to not re-elect Lee in the upcoming election, China conducted a series of military exercises in the vicinity of the Taiwan Strait, including live-fire missile tests to within 50 miles of some of Taiwan's most important ports.[192] According to scholar Andrew Scobell, the exercises were also designed to convince the U.S. that China would use force if the U.S.

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[188] Steven W. Moser, *Hegemon*…, 145.
[189] Ibid., 6.
[190] David Shambaugh, *Modernizing China's Military: Progress, Problems, and Prospects* (Berkeley: University of California Press, 2004), 3.
[191] Andrew Scobell, *China's Use of Military Force: Beyond the Great Wall and the Long March* (Cambridge: Cambridge University Press, 2003), 175.
[192] Ibid.

interfered in any Chinese attempts to reunify Taiwan, which the Chinese were convinced would make the U.S. stay out of what the Chinese saw as a Chinese domestic affair.[193]

Much to China's surprise, however, the U.S. did not back down and, instead, sent two carrier-battle groups to the area to encourage China to end their exercises and stop what has been called its "missile diplomacy."[194] This event had a profound effect on the Chinese leadership. They had already seen in the Gulf War that the U.S. was a vastly superior military and now they saw that the U.S. would not hesitate to send its navy into what the Chinese saw as Chinese water's to interfere in Chinese affairs. This forced the Chinese to confront its own military weaknesses and the conclusion was clear – China must modernize the PLAN, the PLAAF and the Second Artillery Service to prevent the U.S. from interfering in a similar manner in the future.[195]

Of the outstanding territorial disputes, Taiwan is an extremely important political and strategic issue. Politically, a failure to reunify Taiwan, or at least to maintain the status quo, could have catastrophic effects on CCP legitimacy at home, perhaps hastening or triggering its fall from power. Similarly, such a loss may weaken the perception of China amongst the other nations in the region and entice them to more overtly stand up to Chinese influence or entice other Chinese provinces to attempt to break away.[196] Strategically, an independent Taiwan is seen as a barrier that could be used by its enemies to impede the freedom of Chinese movement at sea and prevent it from breaking-out to the open pacific.[197]

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[193] Ibid.
[194] David Shambaugh, *Modernizing China's Military*…, 3.
[195] Ibid., 5.
[196] James R. Holmes and Toshi Yoshihara, *Chinese Naval Strategy in the 21st Century*…, 55.
[197] Ibid.

During World War II, General Douglas MacArthur called Taiwan an "unsinkable aircraft carrier."[198]With its geographic position directly in the middle of the seas encompassed by the first island chain, this is certainly true. From here any enemy could use ships, aircraft and submarines to prevent Chinese forces from concentrating, from effectively using the SLOCs and from moving beyond the island chains and out to the open ocean.[199] As James Holmes and Toshi Yoshihara say, "Indeed, the Chinese leadership almost certainly conceives of Taiwan not only in the nationalistic terms that are the stock-in-trade of Western China watchers, but as a barrier to the nation's maritime destiny."[200] And a strong, modern and capable navy is the lynch-pin in the attempt to keep Taiwan for itself and prevent it from falling into the hands of potential enemies.

As well as the issues discussed above, other political and strategic drivers of naval modernization fall under the category of what retired U.S. Navy Rear-Admiral Eric McVadon calls using the PLAN "…as an instrument of statecraft" to not only show its political will, but also to improve its image and spread its influence.[201] While theorists generally attribute such usefulness to any navy, McVadon notes that the Chinese have only recently demonstrated an understanding of this concept and have openly admitted that this is one of the reasons for their modernization efforts and the development of a blue-water navy.[202] These activities include not only open demonstrations and use of force (such as has been the case in the South China Sea over the last 5 to 10 years), but also activities such as humanitarian assistance and disaster relief operations (both at home, such as the Yushu earthquake, and abroad, such as in Haiti) and boosting China's image around the world through port visits (such as the around-the-world deployment in 2002 and again in 2012) and participation in international exercises (such as

[198] Ibid.
[199] Ibid.
[200] Ibid.
[201] Eric A. McVadon, "The PLA Navy as an Instrument of Statecraft," in *The Chinese Navy: Expanding Capabilities, Evolving Roles*," ed. Phillip C. Saunders, Christopher Yung, Michael Swaine and Andrew Nien-Dzu Yang, 215-246 (Washington, DC: National Defence University Press, 2011), 215.
[202] Ibid.

RIMPAC, which is useful to both reassure people and to deter through a show of its capabilities) or operations (such as the on-going anti-piracy task force in the Gulf of Aden). A strong, modern, capable and blue-water navy is required to improve its image and spread its influence in this manner.

Historical and Cultural Factors

While it is not typically taken into account in the "realist" approach to international relations, another major factor that has a concrete effect on how the Chinese behave is the historical and cultural frame of reference that they have. Zheng Wang, one of the few scholars to have conducted serious research into this aspect of Chinese behaviour, calls this frame of reference the "master historical narrative" of the Chinese collective memory.[203] This narrative is a very deep seated concept that affects how the Chinese see themselves, see the outside world, see their place in that world and where in that world they want to be.[204] This collective consciousness also affects China's foreign policy decisions, especially in periods of heightened tensions or conflicts, in ways that might be difficult for western minds to grasp and is something that needs to be taken into consideration in order to fully understand Chinese policies and behaviours.[205]

Wang describes the importance of this in the following way:

> One of the important findings of this research is how the content of history and memory has defined China's national interests and national objectives. For the ruling party, some nonmaterial interests that are defined by the content of historical memory, such as national dignity and face and respect from other countries, are equally important or even more important than China's material

[203] Zheng Wang, *Never Forget National Humiliation: Historical Memory in Chinese Politics and Foreign Relations* (New York: Columbia University Press, 2012), 47.
[204] Ibid., 6.
[205] Ibid., 9

> interests such as trade, security and territory. The Chinese people's collective historical consciousness about the country's traumatic experiences and the state's political use of the past constitute a powerful force in the way the Chinese conceptualize, manage, and resolve external conflict. Historical memory is the prime raw material for constructing China's national identity. A thorough understanding of Chinese historical consciousness is essential to Chinese politics and foreign policy behaviour analysis.[206]

This collective memory is based on the fact that prior to the 1800s, when China started to have major interactions with the west, they saw themselves as the very center of the world and as a superior civilization. They ruled, either directly or indirectly (through a series of tributary relationships), a large part of the Asian-pacific area and had a major influence on the cultures, governments and politics of those areas they did not rule.[207] "Ancient Chinese believed their group was the chosen people who lived in a 'sacred' or 'divine' land."[208]

This previously unchallenged place in the world, as seen from their perspective, began to change once the western countries, especially Britain and the United States, initiated contact and established trading interests in Asia. China's loss to Britain in the First Opium War (1839-1842) began what the Chinese refer to as the "century of humiliation."[209] This phrase refers to the period between 1839 and 1949 (when the CCP came to power) where, in Chinese eyes, foreign aggressors, including Japan in the late 1800s and early to mid-1900s, repeatedly invaded china, forced it to cede territory, forced it to pay fines and indemnities, forced it to sign disadvantageous treaties, interfered in its domestic politics, ruined its economy and made them feel as if they were inferior and their culture was backwards.[210]

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[206] Ibid., 10.
[207] Martin Jacques, *When China Rules the World: The End of the Western World and the Birth of a New Global Order* (New York: Penguin Press, 2009), 71.
[208] Zheng Wang, *Never Forget National Humiliation*…, 43.
[209] Martin Jacques, *When China Rules the World*…, 72.
[210] Zheng Wang, *Never Forget National Humiliation*…, 48.

While this collective consciousness of "victimization" has been present as an undercurrent in the national identity, handed down within families from generation to generation, it has intensified in recent years due to the government's policy of "patriotic education."[211] Facing a legitimacy crisis in the aftermath of the Tiananmen Square incident of 1989, Deng Xiaoping decided to launch this program to re-educate people, especially the young, about how the CCP saved China from its "century of humiliation" and how it was going to make China a great power once again.[212] Re-enforced in the school system, at museums and through TV, movies, the media as well as speeches, this program has had a profound effect on the people's support for the CCP and their sense of nationalism.[213] Some commentators, such as Thomas Christensen, have even gone as far as to say that the success of this program, along with the success of Deng's economic reforms, have transformed the CCP into a nationalist party rather than a true communist party.[214]

The historical consciousness and the patriotic education program described above have created a world view in the Chinese psyche that makes them politically very sensitive to perceived slights, very defensive and prone to what western minds may see as unnecessary and overly intensive aggression as a protective measure, very aware of any perceived lack of respect, expectant of deference and desirous of overt apologies and concessions when slighted, quick to see foreign comments and actions as interference and, finally, extremely protective of their sovereignty and territorial integrity.[215] This complex and seemingly contradictory mixture of political character traits, at once a high and a low sense of national self-esteem, has led to three

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[211] Ibid., 227.
[212] Ibid., 97.
[213] Dennis Roy, *Return of the Dragon…, 14.*
[214] Zheng Wang, *Never Forget National Humiliation*…, 119.
[215] Ibid., 48.

very common and widely held lessons for the Chinese. Denny Roy, in *Return of the Dragon: Rising China and Regional Security*, sums this up so well that it is worth it to quote him in full:

> In sum, the Chinese draw three very strong and interrelated lessons from their past. First, China properly deserves recognition as the world's greatest country, a position it occupied through most of human history. China's greatness makes it the natural leader of its region. Second, dividing the country impedes its greatness. Lost territory must therefore be recovered and the unity of the country preserved. Third, China's vulnerability for a brief, anomalous period of its modern history led to massive molestation at the hands of predatory foreign powers. The world's great powers (other than China) are ruthless and exploitative. These three lessons point towards a common conclusion: China must become strong.[216]

This conclusion, based on historical and cultural factors, is another reason why the modernization process continued after the retirement and death of Deng and Huaqing --- a modern and capable blue-water PLAN is an psychological part of being strong, projecting strength, protecting China and its interests and, in fact, simply being a great power. This historical consciousness, the world-view it encourages and the lessons drawn from it also affect nearly every aspect of Chinese foreign policy and security behaviour.

For example, after the 1999 NATO bombing of the Chinese Embassy in Yugoslavia and the later collision of a Chinese and a U.S. warplane off the coast of china in 2001, China was reacting in ways that confused the rest of the world.[217] They were not acting in the way that western sensibilities of International Relations would predict and the U.S., the other party involved in both incidences, had a difficult time effectively dealing with the situation and gauging what China wanted.[218] China kept insisting that the U.S. had bombed their embassy "…on purpose…" as a "…premeditated plot to humiliate China…" to "…create internal

[216] Dennis Roy, *Return of the Dragon*…15.
[217] Zheng Wang, *Never Forget National Humiliation*…, 165.
[218] Ibid., 165-181.

chaos…" and to "…induce division in the Chinese people."[219] These assertions seemed so implausible to western ears and China remained so unwilling to accept the proffered apologies that the U.S. simply did not know what to do. China's "master historical narrative" is the reason why.

This narrative is also one of the reasons why China will never let any of the regions involved in their territorial disputes, especially Taiwan, fall from their control. As far as they are concerned, these territories have been theirs for thousands of years and are part of their ancient land and culture. To lose these would be unthinkable, because they are part of how the Chinese perceive themselves and their place in the world, beyond any political or economic considerations. These territories are part of the Chinese "civilizational state," to use the words of Zhang Weiwei, and are absolutely integral to the Chinese sense of "self."[220] To lose them would be to suffer humiliation at the hands of others once again and it is quite likely that China will use force, even against the U.S., to keep them. This was made very clear in a 08 March 2014 statement, when China's Foreign Minister said, "On issues of territory and sovereignty, China's position is firm and clear: We will not take anything that isn't ours, but we will defend every inch of territory that belongs to us."[221]

Conclusion

While some modest modernization occurred under the reign of Mao, it was not until Deng Xiaoping became leader and started both economic and military reforms that the PLAN

[219] Ibid., 172.
[220] Zhang Weiwei, *The China Wave: Rise of a Civilizational State* (Hackensack: World Century Publishing, 2012), 2.
[221] Kelly Olsen, "China to 'defend every inch' of territory: foreign minister," *News.Yahoo.Com*, last accessed 08 March 2014, http://news.yahoo.com/china-defend-every-inch-territory-foreign-minister-075244158.html.

began to be modernized in earnest. Under the vision of Deng and Admiral Liu Huaqing, the PLAN began to transform into the force that it is now. After the retirement of these two men, a number of inter-related and complimentary factors convinced their successors that the modernization process needed to be continued.

Economically, China needs a modern navy to protect its SLOCs so it can ensure their trade in goods, raw materials, and energy resources continue unabated. It also needs a modern blue-water capability to protect its over-seas economic interests and investments as well as its over-seas workers. Closer to home China needs a modern navy to protect its sea-based food sources and to exploit the economic potential of its sea-based resources by ensuring its territorial disputes are secure and moving in the direction they want them to be going.

Politically, the CCP needs a modern navy as a tool through which it can project its power, reassure the public that it is protecting the nation's interests and, therefore, retain its legitimacy. Core to this is protecting its territorial integrity by ensuring no one wrests away any of its disputed territory, especially Taiwan. The retention of Taiwan is also strategically important to prevent others from using it as a base of operations from which to disrupt Chinese freedom of movement and military effectiveness. A strong and modern navy is a key tool in this political context.

With respect to historical and cultural factors, China needs a strong and modern navy to prevent further humiliation at the hands of foreigners. It, at the level of national consciousness, also psychologically needs a modern navy because it fits the Chinese sense of what a great power is, has and is capable of. Finally, it needs a modern navy to continue to physically and psychologically take its rightful place in the world as a great power.

CHAPTER IV – IMPLICATIONS

Introduction

Chapter IV will discuss how Asian-Pacific security and prosperity has largely depended upon the U.S. built alliance system and the unchallenged military might of the U.S. Navy. Furthermore, it will discuss how the rise of Chinese naval capabilities threatens this system and pre-eminence, what options the U.S. has given this new reality, what option would appear to be the best course of action and what dangers are potentially inherent in that option. An understanding of these concepts is important because it places Chinese naval modernization into the larger context of International Affairs and demonstrates what efforts are still needed to ensure successful and peaceful integration of China into the regional security system. In short, this reveals the implications and significance of China's goals and capabilities to the larger question of regional security and stability.

The U.S. Alliance System and the Importance of the U.S. Navy

By the time of the allied victory in World War II, the U.S. military had arguably become the predominant maritime power in the Asian-Pacific region.[222] For decades afterward, China backed a collection of smaller communist states throughout Asia in an attempt to weaken or remove that power from the region.[223] In turn, the U.S. refused to recognize the CCP as the legitimate government of China.[224]

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[222] Ashley J. Tellis, "Uphill challenges..., 3.
[223] Hugh White, *The China Choice*…, 18.
[224] Ibid.

In the early 1950s the war in Korea, which behind-the-scenes could largely be seen as a war between the U.S and China, had been fought to a stalemate and by 1972 the war in Vietnam was going badly for U.S. interests. Seeing an opportunity to stop such disruptive conflicts and to nullify the Chinese opponent so that he could focus on the Soviet opponent, President Nixon visited China in February 1972 and brokered an agreement that set the stage for Asian-pacific geo-politics right up to our own time.[225] Distilled down to its bare essence, the agreement was that the U.S. would recognize the CCP as China's legitimate government and give China access to both technology and economic markets in exchange for China's assurances that it would stop openly categorizing the U.S. as "…an oppressive Imperialist…" and accept America's role as the major power broker and mediator in Asia.[226] Internally, this required the CCP to temporarily set aside its goal of returning China to great power status, but in the weakened state brought on by the Great Leap Forward and the Cultural Revolution this gave it the breathing room it needed to re-build itself and the country.[227]

While the Soviet Union did continue to challenge the U.S. after the U.S./Chinese agreement, the end of the Cold War gave America almost complete freedom to consolidate its hard and soft power in Asia through its system of alliances.[228] Based on a series of both formal alliances, such as with Japan, South Korea and the Philippines, as well as informal alliances, such as with Vietnam and Taiwan, America made itself the "… guarantor of regional security…" by reassuring the many weaker and smaller countries of the area that they would be safe from rivals and that the Air and Sea Lanes of Communication that are so essential to the globalized economy would remain open without those countries having to invest in and build the same type

[225] Odd Arne Westad, *Restless Empire*…, 368.
[226] Hugh White, *The China Choice*…, 19.
[227] Ibid., 3.
[228] Ashley J. Tellis, "Uphill challenges..., 4.

of military capabilities that the U.S. possesses.[229] Because the U.S. does not share borders with any other major power in the region nor does it maintain any large territories there, it is able to act as the regional *police force* and political mediator without, for the most part, making any nation nervous about traditional expansionist agendas.[230]

Although some regional conflicts have occurred under this system, the restraining influence of the U.S. has prevented these from spiralling too out of control or from damaging the system itself.[231] Other U.S. contributions, such as economic investment, cultural influence as well as social and educational institutions have played a part in the cohesiveness of this system, but the over-riding factor has always been the U.S.'s ability to project uncontested military power, and uncontested naval power in particular, into the region.[232] Without the ability for the U.S. Navy to establish uncontested sea and air control in the Asian-Pacific basin, the U.S. cannot fully and successfully protect other states or the global air and sea commons and, therefore, cannot guarantee the survivability of its alliance system and the current regional balance of power.[233]

While China did accept U.S. pre-eminence in the area after the 1972 agreement, this was, in Chinese eyes, at best a temporary agreement due to China's weaknesses politically, economically and militarily.[234] As we have seen, China's deeply seated "master historical narrative" and "national identity" demands a return to China's rightful place as a great power and as the dominant, even if kind and peace-loving, power in the region.[235] Now that China is once

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[229] James Steinberg and Michael E. O'Hanlon, *Strategic Reassurance and Resolve: U.S.-China Relations in the Twenty-First Century* (Princeton: Princeton University Press, 2014), 4.
[230] Patrick C. Bratton, "The United States as a Pacific Power," in *Sea Power and the Asia-Pacific…, 20.*
[231] Ashley J. Tellis, "Uphill challenges..., 6.
[232] Hugh White, *The China Choice*…, 63.
[233] Andrew S. Erickson and Justin D. Mikolay, "Guam and American Security in the Pacific," in *Rebalancing U.S. Forces: Basing and Forward Presence in the Asia-Pacific,* ed. Carnes Lord and Andrew S. Erickson, 15-35 (Annapolis: Naval Institute Press, 2014), 16.
[234] Hugh White, *The China Choice*…, 3.
[235] Zheng Wang, *Never Forget National Humiliation*…, 45.

again strong it expects to take its rightful place and it expects other nations, including the U.S., to not only understand this, but also accept it, especially since "…the Chinese believe their country is an exceptionally benign great power."[236]

There are a number of relatively recent events that highlight China's new confidence and expectations. One example occurred during U.S. Admiral Timothy J. Keating's visit to China in 2009. During a discussion about China's naval modernization, including development of aircraft carriers, a Senior Chinese Official turned to Admiral Keating and said the following:

> You, the US, take Hawaii East and we, China, will take Hawaii West and the Indian Ocean. Then you will not need to come to the western Pacific and the Indian Ocean and we will not need to go to the Eastern Pacific. If anything happens there, you can let us know and if something happens here, we will let you know.[237]

Admiral Keating politely declined the proposed deal.

Another example is the 15 December 2013 near-collision of a PLAN vessel and the *USS Cowpens*.[238] *Cowpens* was transiting through international waters in the South China Sea on its return from a disaster relief operation in the Philippines when it began to track the Chinese aircraft carrier *Liaoning*, which had recently departed the port of Qingdao. The Chinese took exception to this tracking and sent an escort vessel to hail and warn *Cowpens* to leave the area. When *Cowpens* did not alter away, the Chinese vessel moved in front of *Cowpens* and, in violation of the International Collision Avoidance Rules, stopped, causing a close quarters situation and forcing *Cowpens* it to alter its course. It is likely that it was not just the tracking itself that upset the Chinese, but also that the Americans had the nerve, from a Chinese

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[236] Denny Roy, *Return of the Dragon*…,5

[237] Manu Pubby, "China proposed division of the Pacific, Indian Ocean Regions, We Declined: U.S. Admiral," *IndianExpress.Com*, last accessed 18 August 2014, http://archive.indianexpress.com/news/china-proposed-division-of-pacific-indian-ocean-regions-we-declined-us-admiral/459851/.

[238] Bill Gertz, "U.S. Navy –China Showdown: Chinese try to halt U.S. cruiser in international waters," *WashingtonTimes.com*, last accessed 18 August 2014, http://www.washingtontimes.com/news/2013/dec/13/us-navy-china-showdown-chinese-try-halt-us-cruiser/?page=all.

perspective, to do it in what the Chinese consider to be 'their' waters rather than international waters.

Comments and actions such as these support the idea that now that China is strong they feel it is time for the U.S. to reduce or remove its presence from China's rightful sphere of influence.[239] In fact, the U.S.'s continued presence and activities in the area, such as their attempts to influence the South China Seas territorial disputes, their renewed and re-strengthened alliance with Japan, their announced re-pivot to Asia, and their new concept of Air-Sea Battle (which the Chinese think is directly aimed at them), make the Chinese think that the U.S. is trying to contain them and prevent their further rise.[240] When one takes into consideration China's national narrative, the events of 1996 and its Strategic Geography (shown below in Figure 4.1), it is not hard to see why they feel this way. As analysts Ferry De Kerckhove and George Petrolekas say, "At 270 degrees of the compass, she sees either U.S. bases containing her, or states in varying degrees of strategic competition with it."[241]

[239] Hugh White, *The China Choice*…, 60.
[240] James Steinberg and Michael E. O'Hanlon, *Strategic Reassurance and Resolve*…, 21.
[241] Ferry De Kerckhove and George Petrolekas, *The Strategic Outlook for Canada*, The Vimy Paper Vol. 7 – 2014 (Ottawa: The Conference of Defence Associates Institute, 2014), 22.

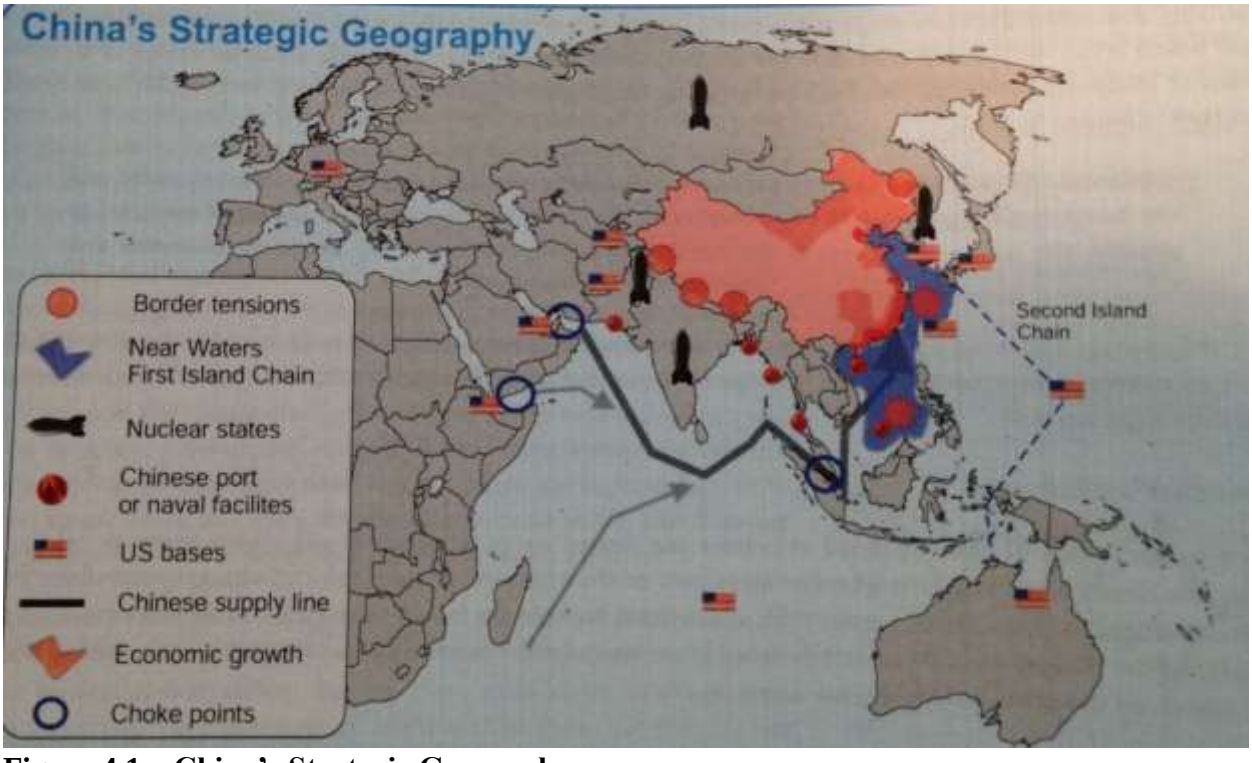

Figure 4.1 – China's Strategic Geography
Source: De Kerckhove and Petrolekas, *The Strategic Outlook for Canada 2014*.

For these and all the reasons already explained in this paper, China has modernized its navy and has, as has already been shown, developed capabilities that could allow it to stop or severely impede the U.S. Navy's ability to freely operate in the region. This modernization has been so successful that Bernard Cole, one of the most respected China Watchers, said as early as 2007 that growing PLAN capabilities "…will offer a very serious challenge to the U.S. Navy when it operates in those waters, allowing Beijing to exert hegemonic leverage in maritime East Asia."[242] If this was true in 2007, then it is even more accurate today given the advances the Chinese have made since 2010.

Unfortunately for regional security, these new capabilities developed during a period of relative U.S. absence while that nation was more focused on the war on terror in the middle-east

[242] Bernard D. Cole, "Right-Sizing the Navy: How Much Naval Force Will Beijing Deploy?," in *Right-Sizing the People's Liberation Army: Exploring the Contours of China's Military*, ed. Roy Kamphausen and Andrew Scobell, 523-553 (Carlisle Barracks, PA: Strategic Studies Institute, U.S. Army War College, 2007), 553.

and, most recently, amid a series of defence budget cuts and subsequent reductions in the U.S. Navy's order of battle.[243] These events have left a number of the countries in the Asia-Pacific region nervous about Chinese intentions and wondering if the U.S. would still be willing or able to come to their assistance.[244] This nervousness is based on a number of factors. First of all, a perceived lack of transparency about why China is modernizing so quickly and to such an advanced level has left others wondering what purpose China has for such a force. Even U.S. officials have publically stated that China's capabilities are much larger than its basic security needs would seem to require.[245] Secondly, the fact that such capabilities are in the hands of an authoritative communist regime reminds people of the old Soviet threat. Thirdly, China's increasingly aggressive stance with other counties over the various territorial disputes develops fears that Chinese is planning for a military campaign of expansion.

Partially because of this, many of these nations, such as India, Singapore, Malaysia, Taiwan, Japan, Vietnam and the Philippines, have begun to build up their own militaries as a defensive hedge against Chinese capabilities, causing concern of an arms race in the region.[246] In fact, during this period of U.S. absence, tensions grew over the various territorial disputes and, without the moderating effect of the U.S., all sides exhibited the most aggressive actions, including detaining personnel, ramming ships and armed stand-offs, that had been seen to date.[247] Despite the fact that the U.S. has announced a re-pivot to Asia and is once again re-enforcing its influence there, these incidences demonstrate the potential chaos and instability that could grow without a pre-eminent U.S. Naval force in and able to *police* the region. However,

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[243] Patrick C. Bratton, "The United States as a Pacific Power…, 31.
[244] Bernard D. Cole, *Asian Maritime Strategies*…, 37.
[245] P.C.Bratton and G. Till, "Conclusions," in *Sea Power and the Asia-Pacific…*,255.
[246] Wendell Minnick, "Growing Muscle: China's Neighbors Gear Up for a Fight," *DefenseNews.Com*, last accessed 21 August 2014, http://www.defensenews.com/article/20140413/DEFREG03/304130018/Growing-Muscle-China-s-Neighbors-Gear-Up-Fight.
[247] Nguyen Phuong Linh and Michael Martina, "South China Sea tensions Rise as Vietnam says China rammed ships," *Reuters.com*, last accessed 21 August 2014, http://www.reuters.com/article/2014/05/07/us-china-seas-fishermen-idUSBREA4603C20140507.

the U.S. was absent for so long and China has increased in capability so much that some analysts wonder if the U.S. will ever be able to re-gain its previously unchallenged position in the region, especially without pushing China into a conflict.[248]

Given this new reality there are four major courses of action the U.S. can take: 1) it can go on the offensive and goad the Chinese into taking some action that will afford the U.S. the excuse to try to destroy the Chinese militarily and politically, thus ending the threat; 2) it can ignore and/or resist Chinese power and attempt to maintain the status quo; 3) it can maintain its presence in Asia, reconfigure its own military capabilities as a hedge against Chinese forces, but begin to allow China more influence in the region while also cooperatively interacting with them to encourage them to be a responsible power; and 4) it can begin to reduce its presence or remove itself from the region.[249] Of these four, option one (aggression) and option four (retreat) are, for what should be obvious reasons, too dangerous, too reckless or too deleterious to western interests to not be viable and they will not be discussed here. Of the remaining options, two (status quo) simply will not work and would most likely result in open conflict as China continues to grow in power and becomes more and more frustrated with the current situation. Option three (power sharing and engagement), then, is the most reasonable, advantageous and viable option.

There are many ways that the U.S. (or any other government in the international system) could attempt engagement: formal treaties; informal cooperative agreements; Chinese participation in U.S. influenced regional and global associations; Chinese participation in U.S. led military exercises; Chinese participation in military exchanges with U.S. forces; Chinese participation in U.S. led humanitarian or disaster relief exercises; and Chinese participation in anti-terrorist and anti-piracy operations, to name a few. Many, if not all, of these possibilities are

[248] Hugh White, *The China Choice*…, 162.
[249] Ibid., 5.

being pursued by both the U.S. and China in an attempt to peacefully manage China's integration into the current international system. However, despite being the best option, power sharing and engagement does have its difficulties and dangers in this situation.

For when we get down to it, there exists a huge cultural and world-view difference between China and the U.S., perhaps greater than has existed in any other power transition in modern history. The U.S. is deeply rooted in western thought, has a tradition of exceptionalism, has largely built the international system, is the world's current super-power, has never been humiliated (especially on home territory) on a grand scale involving loss of empire and is supremely confident of its place in the world. China, on the other hand, is deeply rooted in eastern thought, has an ancient tradition of cultural superiority (its own form of exceptionalism), but is only just becoming part of the international system (of which it takes exception to certain characteristics), has been humiliated through the loss of empire and is highly defensive and paranoid about its position in the world and, especially, its region. These differences make it very difficult for the two countries to understand each other, make the traditional paradigms of political theory less relevant for this situation and make for a potentially explosive and dangerous combination.

How likely is it that either side would actually resort to force? The U.S. is unlikely to use force unless it is actually attacked. As for China, in the short to medium term at least, it is unlikely that it would make the formal decision to use force except in the case of U.S. interference in one of its "core interests" (national security, sovereignty, unification, territorial integrity and economic and social development), such as Taiwan.[250] After all, there are many incentives (economics being a major one) for China not to challenge the established system too

[250] Caitlin Campbell, Ethan Meick, Kimberly Hsu and Craig Murray, "China's Core Interests and the East China Sea", a U.S.-China Economic and Security Review Commission Staff Research Backgrounder (Washington, DC: U.S.-China Economic and Security Review Commission, 2013), 2.

aggressively unless clearly justified to do so.[251] However, given the cultural and world-view differences between the two countries, it is difficult to determine, as with the case of the *Cowpens*, exactly what China wants and how it would define a challenge to its core interests in any particular situation.

It is these unique differences between the two countries that are the key factor and may, if not taken into account, lead to the outbreak of conflict. The historical and cultural perspectives of China do not fit neatly into traditional political theories, such as realism, which rely on a common western frame of mind and reference, in which the U.S. is thoroughly wedded. To successfully manage a cooperative option, both sides will need to make a concerted effort to understand and take into account these differences before making both policy and tactical decisions, otherwise they will continue to be surprised by and misunderstand each other's actions. The U.S., in particular, will need to understand and accept that whatever system of regional security and affairs results from such engagement of China, it likely will not be exactly what has existed to date nor will it likely be quite what they expected. And while it is obvious that they are, as listed above, engaging in relatively traditional attempts to cooperate with each other, to date it appears as though neither side has made any considerable effort to understand the deep historical and cultural differences between them and this is where the real danger lies.

Conclusion

Peace, security, stability and prosperity in Asia since 1972-73 has largely depended upon the U.S. built alliance system and the pre-eminent military might of the U.S. Navy. The relative absence of the U.S. from this region while it was focused on other global interests allowed the

[251] Hugh White, *The China Choice*…, 48.

Chinese a period of strategic opportunity to build its capabilities relatively un-noticed and, at the same time, made its neighbours nervous that the U.S. would no longer be able or willing to support them. The U.S. has now lost its unchallenged position in Asia and in order to bolster its alliance system and re-enforce regional security it needs to cooperatively engage China and share power with it while concurrently encouraging China to be a responsible regional influence. The success of this relationship will depend on a large degree to the level that each side understands the unique cultures' and world-views' of the other and, therefore, would be able to avoid misunderstandings and conflicts while they re-build a new regional security construct. With respect to this key factor, a great deal of work needs to be done by both the Chinese and the U.S..

CONCLUSION

Since 1949 China has made an amazing transformation from a mainly agrarian and developing country to an industrial and economic powerhouse. During this transformation, it came to recognize the importance of the maritime realm to its interests and also began a period of military and naval modernization. This modernization has had three distinct phases: near-coast defense, near-seas active defense and, currently, far-sea operations.

The modernization effort was slow under the leadership of Mao and was constrained not only by Mao's focus on the army, but also by his emphasis on nuclear capabilities and the political and economic disasters of the Great Leap Forward and the Cultural Revolution. Freed from these constraints and enjoying economic prosperity, Mao's successor, Deng Xiaoping, consciously decided to embark on a program of rapid modernization and, with the intellectual help of Admiral Liu Huaqing, developed a strategic framework that guided the modernization effort and is still providing milestones for it today. This frame work envisioned a modern regional navy capable of operating within the first island chain by 2000 and a blue-water navy capable of operating in and beyond the second island chain by 2020.

Upon Deng's and Huaqing's retirements and subsequent deaths, the modernization effort not only continued, but also increased in pace. The fact that the modernization effort outlived its initiators means that their successors realized the importance of the PLAN to China's interests and ambitions. The effort, which began in earnest in 1990 and increased in pace in 2010, has been so successful that China's navy is now assessed to be 70 per cent modern, with a small mixture of older, less capable platforms remaining, and projected to be 85 per cent modern by 2020. Current trends seem to be ahead of this projection, however, and this time-line is likely to decrease very rapidly now that China seems to have abandoned its traditional practise of

commissioning very small numbers of any one platform and has now started to mass produce advanced platforms for wide-spread de-commissioning of older versions. In fact, officials have announced that China intends to "…lay down, launch or commission…" approximately 50 of these new advanced platforms in 2014 alone.[252]

Up until very recently, commentators assessed that China had made much progress, but continued to suffer from weaknesses that prevented it from posing a substantial threat to the U.S. Navy. Since 2010 these weaknesses have largely been resolved and while the PLAN still remains a mixture of older and newer platforms, its capabilities, especially when taken together with those of the PLAAF and the Second Artillery Service, now provide a serious challenge to the U.S. Navy and would prevent or impede its freedom of movement and operations within the first and second island chains. The resolution of these weaknesses has only just been recently recognized and this paper's description of them represents one of its two contributions to the academic discussion of this topic. The PLAN has now become a 21st Century regional navy that is capable of blue-water operations and is quickly expanding not only its blue-water reach, but also its blue-water sustainability.

There are many factors, including economic, political and strategic as well as historical & cultural that have driven the continuation of China's modernization. One of the major economic factors is protection of the SLOCs and its international trade. One of the major political & strategic issues is preventing any nation, including the U.S., from interfering in its territorial disputes, especially Taiwan. While the economic and political & strategic factors can be easily explained by and fit into traditional western political theories, such as realism, the historical & cultural factors are unique. These cannot be easily explained by nor fit into existing theories.

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[252] Kris Osborn, "China's Fleet Advancing Faster Than US Expected," *Military.com*, last accessed 20 August 2014, http://www.military.com/daily-news/2014/02/05/chinas-fleet-advancing-faster-than-us-expected.html.

These historical & cultural factors can be summed up by reference to China's "master historical (or national) narrative", which has imbedded a deep-seated sense of national humiliation, lost empire, obsessive defensiveness as well as national ambition to regain its great power status in the Chinese people. This paper's description of these historical and cultural factors represents the second of its two major contributions to the academic discussion of this topic.

Given the importance of the Asian-Pacific region to the globalized economic system, the implications of Chinese naval modernization is one of the most important defence and security issues of this century. Peace, security, stability and prosperity in Asia in the post-Vietnam war era have largely depended upon the U.S. built alliance system and the pre-eminent military might of the U.S. Navy, but a period of relative absence of the U.S. from this region while it was focused on other global interests allowed the Chinese a period of strategic opportunity to build its capabilities relatively un-noticed. The U.S. has now lost its unchallenged position in the region and its allies have become nervous that the U.S. is either unwilling or unable to support them against possible Chinese aggression. This state of affairs could be destabilizing as nations begin to build-up arms, entrench themselves into their strategic positions, engage in open armed conflict with each other, hedge their bets by currying favour with both China and the U.S. and attempt to play both powers against the other.

Given this situation, the available options for the U.S. are limited. Militarily challenging China, trying to maintain the status quo or removing itself from the region are all unacceptable options and the only reasonable and viable option is to cooperatively engage China at the same time as the U.S. redevelops its military capabilities and concurrently shares power with China while encouraging it to be a responsible regional influence. This would eventually result in a bi-polar regional power system where western, pan-Asian and Chinese interests could be all met in stability. Given the huge cultural differences between the U.S. and China, the Chinese national

narrative will potentially be a barrier to mutual understanding and a successful re-negotiation of the balance of power in the Asian-Pacific region. The success of this new regional relationship will depend to a large degree on the level that each side understands the unique cultures' and world-views' of the other and, therefore, is able to avoid conflict. Unfortunately, it remains to be seen if this understanding will successfully develop. The Red Dragon has risen and the western world will need to learn to live alongside it.

BIBLIOGRAPHY

Beneditkter, Roland and Verena Nowotny. *China's Road Ahead: Problems, Questions, Perspectives*. New York: Springer, 2014.

Bilisborough, Shane. "China's Emerging C4ISR Revolution." *The Diplomat.* Last accessed 05 August 2014. http://thediplomat.com/2013/08/chinas-emerging-c4isr-revolution/.

Bratton, P.C. and G. Till. "Conclusions." In *Sea Power and the Asia-Pacific: The Triumph of Neptune?*, edited by Geoffrey Till and Patrick C. Bratton, 237-268. London: Routledge, 2012.

Bratton, Patrick C.. "The United States as a Pacific Power." In *Sea Power and the Asia-Pacific: The Triumph of Neptune?*, edited by Geoffrey Till and Patrick C. Bratton, 19-45. London: Routledge, 2012.

Bussert, James C. and Bruce A. Elleman. *People's Liberation Army Navy: Combat Systems Technology, 1949-2010.* Annapolis: Naval Institute Press, 2011.

Campbell, Caitlan and Ethan Meick, Kimberly Hsu and Craig Murray. "China's Core Interests and the East China Sea." A U.S.-China Economic and Security Review Commission Staff Research Backgrounder. Washington, DC: U.S.-China Economic and Security Review Commission, 2013.

Carl Otis Schuster, Carl Otis. "China: Its maritime traditions and navy today." In *Sea Power and the Asia-Pacific: The Triumph of Neptune?*, edited by Geoffrey Till and Patrick C. Bratton, 56-74. London: Routledge, 2012.

Cole, Bernard D.. "Right-Sizing the Navy: How Much Naval Force Will Beijing Deploy?" In *Right-Sizing the People's Liberation Army: Exploring the Contours of China's Military*, edited by Roy Kamphausen and Andrew Scobell, 523-553. Carlisle Barracks, PA: Strategic Studies Institute, U.S. Army War College, 2007).

Cole, Bernard. "More Red than Expert: Chinese Sea Power during the Cold War." In *China Goes To Sea: Maritime Transformation in Comparative Historical Perspective*, edited by Andrew S. Erickson, Lyle J. Goldstein, and Carnes Lord, 320-340. Annapolis: Naval Institute Press, 2009.

Cole, Bernard. *The Great Wall at Sea: China's Navy in the Twenty-First Century*. 2nd ed. Annapolis: Naval Institute Press, 2010.

Cole, Bernard. *Asian Maritime Strategies: Navigating Through Troubled Waters*. Annapolis: Naval Institute Press, 2013.

De Kerckhove, Ferry and George Petrolekas. *The Strategic Outlook for Canada*. The Vimy Paper Vol. 7 - 2014. Ottawa: The Conference of Defence Associates Institute, 2014.

Doctoroff, Tom. *What Chinese Want: Culture, Communism, and China's Modern Consumer.* New York: Palgrave MacMillan, 2012.

Dyer, Geoff. *The Contest of the Century: The New Era of Competition with China – And How America can Win*. New York: Alfred A. Knopf, 2014.

Erickson, Andew, Lyle J. Goldstein, William S. Murray and Andrew R. Wilson Editors. *China's Future Nuclear Submarine Force*. Annapolis: Naval Institute Press, 2007.

Erickson, Andrew and Lyle J. Goldstein Editors. *Chinese Aerospace Power: Evolving Maritime Roles*. Annapolis: Naval Institute Press, 2011.

Erickson, Andrew S. and Justin D. Mikolay. "Guam and American Security in the Pacific." In *Rebalancing U.S. Forces: Basing and Forward Presence in the Asia-Pacific*, edited by Carnes Lord and Andrew S. Erickson, 15-35. Annapolis: Naval Institute Press, 2014.

Erickson, Andrew S. and Austin M. Strange. "Learning the Ropes in Blue Water." *U.S. Naval Proceedings* Vol. 139/4/1,322 (April 2013): 34-38.

Erickson, Andrew S.. "China's Naval Modernization: Implications and Recommendations." Testimony before the House Armed Services Committee Seapower and Projection Forces Subcommittee, "U.S. Asia-Pacific Strategic Considerations Related to PLA Naval Forces" hearing. Washington, DC, 11 December 2013.

Favel, M. Taylor and Alexander Liebman. "Beyond the Moat: The PLAN's Evolving Interests and Potential Influence." In *The Chinese Navy: Expanding Capabilities, Evolving Roles*, edited by Phillip C. Saunders, Christopher Yung, Michael Swaine, and Andrew Nien-Dzu Wang, 41-80. Washington, DC: National Defense University Press, 2011

Fenby, Johnathan. *Tiger Heads, Snake Tails: China Today, How it Got There and Where it is Heading*. London: Simon and Schuster, 2012.

Fisher, Richard D.. *China's Military Modernization: Building for Regional and Global Reach* Stanford: Stanford University Press, 2010.

FoxNews.Com. "The Father of the Modern Chinese Navy Liu Huaqing Dies." Last accessed 07 August 2014. http://www.foxnews.com/world/2011/01/14/father-modern-chinese-navy-liu-huaqing-dies/.

Gertz, Bill. "U.S. Navy –China Showdown: Chinese try to halt U.S. cruiser in international waters." *WashingtonTimes.com.* Last accessed 18 August 2014. http://www.washingtontimes.com/news/2013/dec/13/us-navy-china-showdown-chinese-try-halt-us-cruiser/?page=all.

Gill, Bates. *Rising Star: China's New Security Diplomacy*. Washington, DC: Brookings Institution Press, 2007.

Ghiselli, Andrea. "Could Iraq Be Another Libya for China?" *The Diplomat*. Last accessed 08 August 2011. http://thediplomat.com/2014/06/could-iraq-be-another-libya-for-china/.

Goldstein, Lyle. "Beijing Confronts Long-Standing Weaknesses in Anti-Submarine Warfare." *China Brief: A Journal of Analysis and Information* Vol. XI Issue 14 (July 2011): 14-17.

Goldstein, Lyle and Shannon Knight. "Wired for Sound in the 'Near Seas.'" *U.S. Naval Proceedings* Vol. 140/4/1,334 (April 2014): 56-61.

Hartnett, Daniel M. and Frederic Vellucci. "Toward a Maritime Security Strategy: An Analysis of Chinese Views Since the Early 1990s." In *The Chinese Navy: expanding Capabilities, Evolving Roles*," edited by Phillip C. Saunders, Christopher Yung, Michael Swaine and Andrew Nien-Dzu Yang, 81-108. Washington, DC: National Defence University Press, 2011.

Holmes, James R. and Toshi Yoshihara. "Hardly the First Time." *U.S. Naval Institute Proceedings* Vol. 139/4/1,322 (April 2013): 22-27.

Holmes, James R. and Toshi Yoshihara. *Chinese Naval Strategy in the 21st Century: The Turn to Mahan*. New York: Routledge, 2008.

Howarth, Peter. *China's Rising Sea Power: The PLA Navy's Submarine Challenge.* London: Routledge, 2006.

Jacques, Martin. *When China Rules the World: The End of the Western World and the Birth of a New Global Order*. New York: Penguin Press, 2009.

Johannes, Eliza M.. "Colonialism Redux." *U.S. Naval Institute Proceedings* Vol. 137/4/1,298 (April 2011): 60-64.

Johnson, Robert. "China's New MIRV Ballistic Missile IS A Big Deal." *BusinessInsider.com*. Last accessed 04 August 2014. http://www.businessinsider.com/chinas-df-3a-mirv-multiple-us-targets-one-missle-2012-12.

Jianzhong, Zhuang. "China's Maritime Development and U.S.-China Cooperation. " In *China, The United States and 21st-Century Sea Power: Defining a Maritime Security Partnership*, edited by Andrew S. Erikson, Lyle J. Goldstein and Nan Li, 3-13. Annapolis: Naval Institute Press, 2010.

Kamphausen, Roy. "China's Land Forces: New Priorities and Capabilities." In *China's Military Challenge*, edited by Ashley J. Tellis and Travis Tanner, 26-58. Washington, DC: The National Bureau of Asian Research, 2012.

Kaplan, Robert. *Asia's Cauldron: The South China Sea and the end of a stable Pacific.* New York: Random House, 2014.

Leonard, Mark. *What does China Think?*. New York: PublicAffairs, 2008.

Li, Nan. "The Evolution of China's Naval Strategy and Capabilities: From 'Near Coast' and 'Near Seas' to 'Far Seas.'" In *The Chinese Navy: Expanding Capabilities, Evolving Roles*, edited by Phillip C. Saunders, Christopher Yung, Michael Swaine and Andrew Nien-Dzu Yang, 109-140. Washington, DC: National Defence University Press, 2011.

Lin, Jeffrey and P.W. Singer. "A New Naval Oil Tanker Will Help The Chinese Navy Go Blue-Water." *Popular Science.Com.* Last accessed 04 August 2014. http://www.popsci.com/blog-network/eastern-arsenal/new-naval-oil-tanker-will-help-chinas-navy-go-blue-water.

Minnick, Wendell. "Growing Muscle: China's Neighbors Gear Up for a Fight." *DefenseNews.Com.* Last accessed 21 August 2014. http://www.defensenews.com/article/20140413/DEFREG03/304130018/Growing-Muscle-China-s-Neighbors-Gear-Up-Fight.

McDevitt, Michael and Frederic Vellucci. "Two Vectors, One Navy." *U.S. Naval Institute Proceedings* Vol. 137/4/1,298 (April 2011): 30-35.

McVadon, Eric A.. "The PLA Navy as an Instrument of Statecraft." In *The Chinese Navy: Expanding Capabilities, Evolving Roles*," edited by Phillip C. Saunders, Christopher Yung, Michael Swaine and Andrew Nien-Dzu Yang, 215-246. Washington, DC: National Defence University Press, 2011.

Moser, Steven W. *Hegemon: China's Plan to Dominate Asia and the World*. San Francisco: Encounter Books, 2002.

Moyo, Dambrisa. *Winner Takes All: China's Race for Resources and What It Means for Us*. London: Penguin Group, 2012.

Nathan Andrew J. and Andrew Scobell. *China's Search for Security*. New York: Columbia University Press, 2012.

O'Rourke, Ronald. "PLAN Force Structure: Submarines, Ships and Aircraft." In *The Chinese Navy: Expanding Capabilities, Evolving Roles*," edited by Phillip C. Saunders, Christopher Yung, Michael Swaine and Andrew Nien-Dzu Yang, 141-173. Washington, DC: National Defence University Press, 2011.

O'Rourke, Ronald. "China's Forces for Influencing events in the Asian-Pacific Region." Testimony before the House Armed Services Committee Seapower and Projection Forces Subcommittee, "U.S. Asia-Pacific Strategic Considerations Related to PLA Naval Forces" hearing. Washington, DC, 11 December 2013.

Olsen, Kelly. "China to 'defend every inch' of territory: foreign minister." *News.Yahoo.Com.* Last accessed 08 March 2014. http://news.yahoo.com/china-defend-every-inch-territory-foreign-minister-075244158.html.

Osborn, Kris. "China's Fleet Advancing Faster Than US Expected." *Military.com.* Last accessed 20 August 2014. http://www.military.com/daily-news/2014/02/05/chinas-fleet-advancing-faster-than-us-expected.html.

Phuong Linh, Nguyen and Michael Martina. "South China Sea tensions Rise as Vietnam says China rammed ships." *Reuters.com.* Last accessed 21 August 2014.

http://www.reuters.com/article/2014/05/07/us-china-seas-fishermen-idUSBREA4603C20140507.

Pietz, David. "The Past, Present and Future of China's Energy Sector." In *China's Energy Strategy: The Impact on Beijing's Maritime Policies*, edited by Gabriel B. Collins, Andrew S. Erickson, Lyle J. Goldstein and William S. Murray, 36-60. Annapolis: Naval Institute Press, 2008.

Pubby, Manu. "China proposed division of the Pacific, Indian Ocean Regions, We Declined: U.S. Admiral." *IndianExpress.Com.* Last accessed 18 August 2014. http://archive.indianexpress.com/news/china-proposed-division-of-pacific-indian-ocean-regions-we-declined-us-admiral/459851/.

Rielage, Dale C.. "Fit to Fight." *U.S. Naval Institute Proceedings* Vol. 140/4/1,334 (April 2014): 50-55.

Roy, Dennis. *Return of the Dragon: Rising China and Regional Security*. New York: Columbia University Press, 2013.

Saunders, Philip C.. "Conclusion." In *The Chinese Navy: Expanding Capabilities, Evolving Roles*," edited by Phillip C. Saunders, Christopher Yung, Michael Swaine and Andrew Nien-Dzu Yang, 287-293. Washington, DC: National Defence University Press, 2011.

Schell, Orville and John Delury. *Wealth and Power: China's Long March to the Twenty-First Century*. New York: Random House, 2013.

Scobell, Andrew. *China's Use of Military Force: Beyond the Great Wall and the Long March* Cambridge: Cambridge University Press, 2003.

Shambaugh, David. *Modernizing China's Military: Progress, Problems, and Prospects*. Berkeley: University of California Press, 2004.

Shambaugh, David. *China Goes Global: The Partial Power*. Oxford: Oxford University Press, 2013.

Shirk, Susan L. *China: Fragile Superpower*. Oxford: Oxford University Press, 2007.

Steinberg, James and Michael E. O'Hanlon, *Strategic Reassurance and Resolve: U.S.-China Relations in the Twenty-First Century*. Princeton: Princeton University Press, 2014.

Stokes, Mark A.. "The Second Artillery Force and the Future of Long-range Precision Strike." In *China's Military Challenge*, edited by Ashley J. Tellis and Travis Tanner, 127-160. Washington, DC: The National Bureau of Asian Research, 2012.

Tangredi, Sam J.. *Anti-Access Warfare: Countering A2/AD Strategies.* Annapolis: Naval Institute Press, 2013.

Tellis, Ashley J.. "Uphill Challenges: China's Military Modernization and Asian Security." In *China's Military Challenge*, edited by Ashley J. Tellis and Travis Tanner, 3-24. Washington, DC: The National Bureau of Asian Research, 2012.

Terrill, Ross. *The New Chinese Empire: And what it means for The United States*. New York: Basic Books, 2003.

Thomas, Jim. "Statement before the House Armed Services Committee Seapower and Projection Forces Subcommittee." Testimony before the House Armed Services Committee Seapower and Projection Forces Subcommittee, "U.S. Asia-Pacific Strategic Considerations Related to PLA Naval Forces" hearing. Washington, DC, 11 December 2013.

Till, Geoffrey. *Seapower: A Guide for the Twenty-First Century*. London: Frank Cass Publishers, 2004.

Tribune Information Services. "How He Sees It: China's Modernizing Military, Economic Clout Pose Challenge for U.S." Last accessed 16 July 2013. http://www.vindy.com/news/2005/apr/28/how-he-sees-it-chinas-modernizing-military/?print.

Truver, Scott C. "Taking Mines Seriously: Mine Warfare in China's Near Seas." *Naval War College Review* Vol. 65, No. 2 (Spring 2012): 30-66.

United States Congress. "China Naval Modernization: Implications for U.S. Navy Capabilities – Background and Issues for Congress." Washington, DC: Congressional Research Service, 2014.

United States Department of Defense. "Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2014. Washington, DC: Office of the Secretary of Defense, 2014.

United Nations. United Nations Conference on Trade and Development. *Review of Maritime Transport 2013*. Geneva: United Nations Publications, 2013.

Vego, Milan, "China's Naval Challenge," *U.S. Naval Institute Proceedings* Vol. 137/4/1,298 (April 2011): 36-40.

Vego, Milan. "Chinese Shipping Could Be Risky Business." *U.S. Naval Proceedings* Vol. 140/4/1,334 (April 2014): 38-43.

Wang, Zheng. *Never Forget National Humiliation: Historical Memory in Chinese Politics and Foreign Relations*. New York: Columbia University Press, 2012.

Weiwei, Zhang. *The China Wave: Rise of a Civilizational State*. Hackensack: World Century Publishing, 2012.

Westad, Odd Arne. *Restless Empire: China and the World since 1750*. New York: Basic Books, 2012.

White, Hugh. *The China Choice: Why We Should Share Power*. Oxford: Oxford University Press, 2012.

Wortzel, Larry M.. *The Dragon Extends its Reach: Chinese Military Power Goes Global.*

Xuetong, Yan. *Ancient Chinese Thought, Modern Chinese Power*. Translated by Edmund Ryden. Princeton: Princeton University Press, 2011.

Xiaoxing, Gao. *The PLA Navy*. New York: CN Times Books, 2014.

Yoshihara, Toshi and James R. Holmes. *Red Star Over the Pacific: China's Rise and the Challenge to U.S. Maritime Strategy.* Annapolis: Naval Institute Press, 2010.

Zhao, Shelly. "China's Territorial Disputes in the South China Sea and the East China Sea." *China Breifing.Com.* Last accessed 11 August 2014. http://www.china-briefing.com/news/2011/05/31/chinas-territorial-disputes-in-the-south-china-sea-and-east-china-sea.html.

Zhu, Zhiqun. *China's New Diplomacy: Rationale, Strategies and Significance*. 2nd ed. Burlington: Ashgate Publishing Company, 2013.