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**China's Naval Modernization in the Mahanian Mirror:
Reconsidering Real Force Capacity in the Medium and Longer-Term Perspective**

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JCSP 34

Master of Defence Studies

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PCEMI N° 34

Maîtrise en études de la défense

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April 2008

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Abstract

Since the end of the Cold War China, free from the fear of invasion by the Soviet Union, has turned its focus and energy towards economic growth. As a result, China has become dependent on the sea for exporting commodities and importing petroleum products to fuel economic expansion. This has required Beijing to look to the sea and invest significantly in the People's Liberation Army Navy in order to protect their increasingly important Sea Lines of Communication. This paper examines key issues related to China's rise to naval power by responding to James Holmes and Toshi Yoshihara's article "China's 'Caribbean' in the South China Sea". It argues that the asymmetric focus of the Chinese military build up is designed to illicit a disproportionate response from the West and potentially paves the way for China's peaceful rise to global prominence.

The main findings of the paper highlight several key issues that could help temper the Western response. Firstly, the U.S. enjoys a unique position of external influence in Beijing as western markets, especially the U.S. market, are critical for China's increased economic expansion. Secondly, by investing in a highly technological navy the Chinese are forcing the U.S. to invest heavily to counter any perceived threat. Chinese leadership has sagaciously embarked on a program to increase military spending and improve capability. They have chosen a path that will provide them with a greatly improved military force while necessarily compelling any rivals to invest heavily or "move out of the way." Prudence dictates that the West maintain an ability to defend against such a build up however, a calculated response is required to avoid entering a new arms race with an emerging power.

Chapter 1 – Introduction

Since the end of the Cold War China, free from the fear of invasion by the Soviet Union, has turned its focus and energy towards economic growth. As a result of years of unprecedented success, China has become dependent on the sea for exporting the commodities that bring prosperity and importing the vast quantities of petroleum products necessary to fuel economic expansion. Realizing this strategic vulnerability, Beijing is now looking to the sea and investing significantly in the People's Liberation Army Navy (PLAN) to protect its Sea Lines of Communication (SLOC), the maritime routes on which its prosperity relies. As their economic might continues to grow alongside increasing military capacity, China is now the only possible contender to rival the United States as a global super-power.

While China increases its military might with a particular focus on sea power, a most curious west watches. What direction will the PLAN take? Is China intent on becoming a regional power or do they have their eyes set on becoming a global naval authority? The especially secretive nature of the Chinese government precludes a straightforward interpretation of their military expansion. Although all nations tend to be secretive about military capability and expansion, the PRC is especially secretive in much of what is done. What is known is that Chinese naval strategists have taken a significant interest in Western maritime power theorists, in particular they have been studying the works of the United States' "evangelist of sea power," Alfred Thayer Mahan.¹ As US Naval Academy professor Yong Deng notes in his book *China Rising* "China was

¹ J. R. Holmes and T. Yoshihara, "China's "Caribbean" in the South China Sea," *SAIS Review* 26, no. 1 (2006), 79.

increasingly viewed by its neighbour countries as the major power aspirant, whose long-term strategic interests would be potentially in conflict with that of a defending hegemony (the United States) and a regional rivalry (Japan).”² The fact that China is believed to be following a similar blueprint to that which brought the United States Navy (USN) to global supremacy, is of great importance in the west and must be carefully monitored to avoid repeating the horrific results of the Japanese and German navies of the early 20th century: first generation Mahan followers.

For the outsider, the Chinese turn to Mahan, a maritime theorist who died nearly a century ago, must seem curious. The reason that a view to history is an excellent method to shape the future of maritime strategy is perhaps best explained by Mahan himself. In explaining why knowledge of historical naval battles is important for naval officers, Mahan explains “The battles of the past succeeded or failed according as they were fought in conformity with the principles of war; and the seaman who carefully studies the causes of success or failure ... will also acquire increased aptitude in applying them to the tactical use of the ships and weapons of his own day.”³ For the informed western maritime strategist, the Chinese turn to Mahan poses the single greatest challenge since the cold war. Competition with China must be carefully managed to avoid a modern equivalent of the arms race during the Dreadnaught era or Cold War.

Another interesting reason why this historical study is so compelling is that the current global sea power paradigm is remarkably similar to that at the time of Mahan.

² Y. Deng and F. Wang, eds., *China Rising* (Lanham, Maryland: Rowman and Littlefield Publishers, 2005), 258.

³ A. T. Mahan, *The Influence of Sea Power upon History: 1660-1783* (Sioux Falls, SD: Nu Vision Publications, 2007), 24.

When Mahan wrote, there was only a single, unrivalled power with global interests: the Royal Navy. There was an emerging power with significant regional interests and an increasingly global outlook: the United States. However, the similarities do not end there. To the south of the United States was a vast region of increasing strategic importance and, with a transoceanic canal on the Central American Isthmus in the offing, the Caribbean was set to become one of the most important Sea Lines of Communication in the world. Being on the doorstep of this important maritime region the United States must, urged Mahan, build a strong navy to safeguard their interests and ensure prosperity. Equally interesting in using this comparison is that it follows the identical methodology used by Mahan himself. He considered that the Mediterranean Sea played “a greater part in the history of the world...than any other sheet of water of the same size.” When looking for a methodology to study how the Caribbean might gain global importance, especially if a canal through Central America were built, Mahan noted “A study of the strategic conditions of the Mediterranean, which have received ample illustration, will be an excellent prelude to a similar study of the Caribbean, which had comparatively little history.”⁴ Over a hundred years later, studying Mahan’s interpretation of the Caribbean serves the exact same purpose; it is an excellent prelude to the study of the South China Sea.

Today, there is only one unrivalled power at sea: the United States. The regional power with increasingly global aspirations is China and, to its south, lays the South China Sea. SLOCs are becoming increasingly important to China. Approximately 85 percent

⁴ *Ibid.*, 42

of their trade is carried on the sea. Over 50 percent of global merchant shipping passes through the South China Sea: more than five times as much as the Panama Canal.⁵

This paper examines key issues related to China's rise to naval power. It does so by responding to James Holmes and Toshi Yoshihara's article "China's 'Caribbean' in the South China Sea", which discusses many of the strategic maritime issues effecting China. Such a critique provides a “springboard” from which to address the topic and further develop and discuss many of the issues. This paper argues that the asymmetric focus of the Chinese military build up is designed to illicit a disproportionate response from the West and potentially paves the way for China’s peaceful rise to global prominence.

To support this argument, the following issues are examined. Is China a legitimate sea power? Why is Mahan relevant to the Chinese navy? How has Mahan influenced other nations with similar interests? What is the extent of Chinese naval build-up? Does the Chinese navy have the training required to take advantage of their technological advances? What is the most likely end-state for the PLAN? Finally, how does China’s naval build-up fit within the Chinese grand strategic plan?

To better set the context for the study, the following chapter discusses the writings of Alfred Thayer Mahan and his theories and influence on sea power. A brief discussion of his effect on the Imperial Japanese Navy is included to show how he has affected other navies in the past. The similarities between Japan’s aspirations at the time and those of China today suggest that they could reasonably be expected to follow a similar path. Chapter three examines China’s security environment, the effects of globalization and PLAN composition and doctrine, thus providing a more thorough discussion on the

⁵ B. D. Cole, *The Great Wall at Sea: China's Navy Enters the Twenty-First Century* (Annapolis, Maryland: Naval Institute Press, 2001), 38.

importance of China's SLOCs and how the PLAN is organizing to apply the writings of Mahan. Chapter four examines the similarities between the U.S. of Mahan's time and the China of today while chapter five examines some of the important differences ignored by Holmes and Yoshihara that also provide indication of China's possible course of action. Additionally, this chapter will discuss how the PLAN fits within a larger grand strategic context. The final chapter will discuss the implications of China's maritime build up for the west.

Throughout the paper, the author will show that the dynamic between China and the South China Sea is very similar to that that was between the U.S. and the Caribbean at the time of Mahan. Unlike Holmes and Yoshihara, the author will show further similarities and also highlight the key differences that point to China's likely course of action. The author contends that China has the long-term potential to usurp the United States as the preeminent global power, however, the U.S. enjoys a unique existing position of influence and power that, if exercised judiciously, may moderate Beijing's policies. Finally, the author concludes that China will develop a modest fleet that will, in combination with other PLA technologies, force the U.S. to dedicate disproportionate resources to counter the perceived threat.

Chapter 2 – Mahan and Sea Power

The son of a published author and engineering professor, Alfred Thayer Mahan grew up on the campus of the West Point Military Academy – the United States Army’s university. While his time on campus and exposure to the army instilled a sense of discipline, when it was time to choose a profession, he decided to enrol in the United States Navy. He graduated near the top of his 1859 U.S. Naval Academy class and went on to a rather uninspiring career. His early sea-going days included service with the Union during the US Civil War however; it was during his time in command at sea that he was invited to take a post that would change the path of his life. In 1886, Mahan accepted a position at the new US Naval War College. It is here that he started writing on maritime strategy and over the years he would publish numerous articles and 21 books prior to his death in 1914.⁶

Mahan opens his great work *The Influence of Sea Power Upon History, 1660 - 1783* with an excellent description of the sea that clearly highlights its importance to all mankind. He describes the sea as “...a great highway; or ... a wide common, over which men may pass in all directions, but on which some well-worn paths show that controlling reasons have led them to choose certain lines of travel rather than others.”⁷ The description of the high seas as a “common” for all mankind is important because, unlike any other part of the globe the oceans are not the sovereign territory of any state. There are noted exceptions where nations have varying levels of control over the oceans (territorial waters, contiguous zones and economic exclusion zones) however, the vast

⁶ "Mahan, Alfred Thayer," <http://www.answers.com/topic/alfred-thayer-mahan> (accessed March/01, 2008).

⁷ Mahan, *The Influence of Sea Power upon History: 1660-1783*, 37

majority of the oceans remain available to all. It is this common access that provides maritime activities its greatest strength – the freedom to move easily throughout the globe and its greatest vulnerability – the ease with which an adversary or belligerent state can adversely affect the maritime interests of a state.

In order to protect national maritime interests during time of tension or war, nations must be able to exert influence over the high seas. The degree of influence required is a national decision that will be guided by national interest, governmental goals and more realistically, budgetary constraints. Mahan contended that nothing short of command of the sea was the goal of naval power. This command was to be gained by the “offensive action” of a “prepondering fleet.”⁸ With an understanding of the world’s seas as great common and the requirement for command of the sea as Mahan’s goal for naval power, it is now important to understand what Mahan considered to be the principle conditions that allow a nation to achieve sea power as well as the necessary elements of sea power.

Mahan provided six “principle conditions” that affect the ability of a nation to project sea power namely: geographic position, physical conformation, extent of territory, number of population, character of the people, and character of the government.⁹ His six principles suggest that to become a great sea power a nation must possess these principle conditions and, additionally, it clearly demonstrates the importance maritime geostrategy

⁸ Department of National Defence, *Leadmark: The Navy's Strategy for 2020* (Ottawa: Public Works and Government Services Canada, 2001), 42.

⁹ Mahan, *The Influence of Sea Power upon History: 1660-1783*, 39

plays in a country's potential for power and wealth.¹⁰ In addition to these conditions, he identified “three pillars” of sea power, namely overseas commerce, naval and merchant fleets and naval bases required to support deployed warships that are necessary to exercise command of the sea.¹¹ The six principle conditions are now examined in more detail.

The Six Principle Conditions

Geographical Position

Mahan considers Geographical Position as a principle condition affecting a sea power nation. While at first glance, this may seem self evident, Mahan goes on to consider more than mere proximity to the sea. In addition to this key consideration is the proximity to land threats. Mahan notes that a nation that is “neither forced to defend itself by land nor induced to seek extension of its territory by way of the land, it has...an advantage as compared with a people one of whose boundaries is continental.”¹² This principle condition is clearly problematic for China. As a continental nation that shares its borders with 15 other countries, China has spent much of its young life in fear of invasion necessitating a disproportionate investment in land forces at the expense of naval modernization. Although the end of the Cold War has brought increased security for China, they will continue to direct energy and resources towards securing their periphery. While the U.S. is also a continental power, it enjoys prosperous relationships

¹⁰ X. Qi, "Maritime Geostrategy and the Development of the Chinese Navy in the Early Twenty-First Century," *Naval War College Review* Vol. 59, no. 4 (2006), 49, <http://www.nwc.navy.mil/press/review/documents/NWCRAU06.pdf> (accessed 30 September 2007).

¹¹ Holmes and Yoshihara, *China's "Caribbean" in the South China Sea*, 81

¹² Mahan, *The Influence of Sea Power upon History: 1660-1783*, 40

with both nations and the likelihood of armed conflict between the U.S. and either neighbour is infinitesimally small. Clearly this element of Geographical Position favours the United States.

Another consideration within the condition of Geographical Position is whether a nation's position allows for concentration of force or necessitates a dispersed fleet.¹³ China has over 9000 miles of coastline but, is fortunate to only border a single ocean mass.¹⁴ This convenience of position allows for easy concentration of naval forces where the U.S. position requires splitting of assets between Atlantic and Pacific (this is an oversimplification that ignores U.S. global deployments and responsibilities). Indeed, Mahan noted that the "position of the United States upon two oceans would be either a source of great weakness or a cause of enormous expense...."¹⁵ Given that U.S. geography requires, at a minimum, a two ocean navy while China has the luxury of a single continuous shoreline, China enjoys the advantage of concentration of force.

The final element of Geographical Position that will be discussed is proximity to important SLOCs. Mahan notes that if "a country has easy access to the high seas itself, while at the same time it controls one of the great thoroughfares or [sic] the world's traffic, it is evident that the strategic value of its position is very high."¹⁶ In this instance, both the China and the U.S. are very near SLOCs of global significance. China is near

¹³ *Ibid.*, 40

¹⁴ Although China borders the Yellow Sea, East China Sea and the South China Sea, these bodies of water are all connected and easily travelled between. As an example, Mahan uses France and its requirement to split a fleet between the Atlantic and Mediterranean. Following the Mahanian context of promoting concentration or necessitating dispersion, China clearly falls in the category of the former.

¹⁵ *Ibid.*, 40

¹⁶ *Ibid.*, 41

the Strait of Malacca that "...is the key chokepoint in Asia with an estimated 15 million bbl/d [barrels per day] flow in 2006." Over 50 000 ships transit the strait every year and in 2006, the Strait of Malacca was second only to the Straits of Hormuz (16.5 – 17 million bbl/d) in oil that flowed through the strait.¹⁷ The U.S. is near the Panama Canal that is also one of the world's great shipping routes. Approximately 5 percent of the world's trade, or 13 – 14 thousand ships per year use the Panama Canal.¹⁸ While both countries have significant strategic value associated with their geographic position, in the Mahanian context, China is near the more valuable thoroughfare and thus enjoys greater strategic advantage from its position.

Physical Conformation

The condition of Physical Conformation addresses a nation's seaboard and specifically the ease with which a country can access the sea. Additionally, the number and quality of harbours are also considered as part of a nation's Physical Conformation. An additional and particularly salient consideration of this condition is a country's reliance on external sources for both economic and physical sustenance.¹⁹

Mahan uses Holland as an example of a nation overly reliant on external trade. He notes that while "England was drawn to the sea, Holland was driven to it; without the sea England languished, but Holland died... a competent native authority estimated that

¹⁷ Energy Information Administration, "World Oil Transit Chokepoints," http://www.eia.doe.gov/cabs/World_Oil_Transit_Chokepoints/Full.html (accessed 03/10, 2008).

¹⁸ Panama Canal Authority, "Panama Canal Authority," <http://www.pancanal.com/eng/general/asi-es-el-canal.html> (accessed 03/10, 2008).

¹⁹ Mahan, *The Influence of Sea Power upon History: 1660-1783*, 44 - 45

the soil of Holland could not support more than one eighth of its inhabitants.”²⁰ After defeat at the hands of England in 1653-54 and having their shipping halted “the country was full of beggars; grass grew in the streets, and in Amsterdam fifteen hundred houses were untenanted.”²¹ Here is a stark example of what can happen when a country overly reliant on external trade is cut off from its source of wealth and prosperity. Mahan goes on to note that the United States of his day with “internal resources [that] are boundless as compared with present needs; we can live off ourselves indefinitely...”²²

A look at recent statistics for China and the U.S. reveals that both countries may prove particularly vulnerable to interruptions of maritime commerce. Forty-six percent of China’s oil requirements were imported in 2007 (3.19 million barrels/day), while in 2004 the U.S imported 63.2 percent of its oil needs (13.15 million bbls/day).²³ Clearly both countries are vulnerable but given the volume of oil the U.S is dependant on and the greater percentage of imports, it would appear that China has the edge in Physical Conformation.

Extent of Territory

The Extent of Territory condition is the length of coastline relative to the size of the population.²⁴ The greater the number of citizens per kilometre of coastline, the more people a nation has to either put to sea or defend an invasion from the sea. To provide a

²⁰ *Ibid.*, 45

²¹ *Ibid.*, 46

²² *Ibid.*, 49

²³ Central Intelligence Agency, "The World Fact Book," <https://www.cia.gov/library/publications/the-world-factbook/> (accessed 03/10, 2008).

²⁴ Mahan, *The Influence of Sea Power upon History: 1660-1783*, 49

more ‘concrete’ determination of this condition, Table 1 is presented. In this table, five countries are compared with their coastline length, population and a value, the Extent of Territory Index (population divided by length of coastline in km divided by 100 – to provide more manageable numbers). While admittedly, the absolute value of this statistic is dubious, it does provide an indication of each country’s relative potential based on the Mahan principle condition of Extent of Territory.

Country	Coastline	Population	Extent of Territory Index
China	14500	1321851888	911.6
United States	19924	301139947	151.1
United Kingdom	12429	60776238	489.0
Russia	37653	141377752	375.5
Canada	202080	33390141	1.7

Table 1 (Coastline and population data from CIA World Factbook)

From the objective data, China has a clear advantage in Extent of Territory however; the fact that it is a continental power that must manage borders with 15 neighbouring countries will significantly erode their Extent of Territory.

Number of Population

While the Extent of Territory principle condition considered the length of coastline relative to the population, the number of population considers not just the entire population “but the number following the sea, or at least readily available for employment on ship-board and for the creation of naval material....”²⁵ Here Mahan acknowledges the importance of being a “seafaring” nation so that the skills necessary to produce and sustain naval forces are available.

What is particularly interesting is Mahan’s acknowledgement of technology. He recognizes the increasing importance of military technology and while he does not

²⁵ *Ibid.*, 50

support it, he also acknowledges the belief in a sudden, decisive victory. That said, he also recognizes that should equal powers collide without rapid victory, “the reserve strength will begin to tell; organized reserve first, then reserve of seafaring population, reserve of mechanical skill, [and] reserve of wealth.”²⁶ It is perhaps indicative of Mahan’s foresight and knowledge of warfare that he did not fully believe technology could bring quick, decisive victories. Given the numerous, lengthy and costly wars since his writings, the emphasis he places on having a reserve force remains as relevant today as it did then.

China boasts a fleet of approximately 230 ships and submarines including 75 surface combatants, 55 submarines, 50 large and medium landing ships, and approximately 50 coastal missile patrol vessels.²⁷ The United States Navy’s fleet

National Character

The National Character that Mahan refers to is used to describe the methods used by nations to gain wealth and the associated effect these methods have on both the home and host nations.²⁹ In particular, Mahan compares the successes of England with the failures of France, Spain and Portugal. Spain and Portugal attempted to quickly amass wealth through silver and gold while the English sought to develop all the resources of a new country. Although the French were quick to return home, the English settled in their new land without a pressing desire to return to England.³⁰ In short, the English became much more involved with their colonies and sought to develop every potential commodity. The “quick-money” approach of other countries ended in failure.

With the age of colonization over, National Character has a much smaller role to play. Arguably, the modern equivalent is Fair Trade and sustainable development – a similar responsible trading philosophy that proved successful for the British. A discussion on the trading practices of both China and the U.S. is beyond the scope of this paper and for the purposes of building and maintaining Sea Power, National Character, in the Mahanian sense, is not considered important.

Character of Government

Mahan’s final principle condition is the Character of Government. Rather than point to a particular style of government or leadership as key to sea power, he notes that “particular forms of government with their accompanying institutions, and the character of rulers at one time or another, have exercised a very marked influence upon the

²⁹ Mahan, *The Influence of Sea Power upon History: 1660-1783*, 54

³⁰ *Ibid.*, 54-58

development of sea power.”³¹ More simply put, several forms of government have been successful in developing sea power.

Mahan also points out the strengths and weaknesses of “free governments” and those with “despotic power.” Free governments tend to succeed “where there has been intelligent direction by a government fully imbued with the spirit of the people ...while on the other hand despotic power, wielded with judgement and consistency, has created at times a great sea commerce and a brilliant navy....”³² Mahan goes on to point out that free governments are “not generally favourable” to large investments in the military while despotic governments may not maintain the consistency required between leaders.³³ Clearly a government from any point along the political spectrum is capable of creating the conditions necessary for sea power but that government must provide consistent financing and strategic direction over long time periods in order to succeed. Where despots may be susceptible to vastly varying policies with leadership change, free governments are equally vulnerable to financial pressures from their citizenry.

Both China and the U.S. have governments capable of leading their nations to become global sea powers. Currently, the PLAN appears to have the full support of the Chinese Communist Party (CCP) and the United States Navy, while decreasing in size, remains the world’s most capable navy.

Both China and the U.S. meet, to varying degrees, all of Mahan’s principle conditions necessary to exercise sea power. It is particularly telling that China enjoys the

³¹ *Ibid.*, 59

³² *Ibid.*, 59

³³ *Ibid.*, 59, 65

advantage in Geographical Position, Physical Conformation and Extent of Territory.

Mahan refers to these three principle conditions as the “natural conditions of a country”³⁴ that are very difficult, if not impossible to alter.³⁵ The final three conditions are much more subjective. Advantage in Number of Population is difficult to determine without an exhaustive study of each nation’s Industrial Military Complex. Character of People is arguably an outdated principle given the end of colonization. Character of Government is critically important but difficult to assess given the secretive nature of one government and the requirement of the other to be responsive to its population. What is significant from this study is that China enjoys the conditions necessary to succeed as a great sea power.

Mahan and the Imperial Japanese Navy

It is useful to study Mahan’s influence on the Imperial Japanese Navy (IJN) as this “external interpretation” provides an excellent example of what can go wrong should Mahan be taken out of the context of his time period. His writings provided both a formula for prosperity that was unique to the American situation of his time as well as aspects on sea power that are universal. The Japanese navy studied Mahan’s *Influence of Sea Power* to understand the “uniquely American doctrine (a national policy of greatness through overseas expansion)” and “universally applicable naval theories.” They believed

³⁴ *Ibid.*, 50

³⁵ Clearly these conditions could be altered should patterns of world trade change or subversive activity threaten China’s periphery but, in general, these conditions are static.

that careful study of the American doctrine may provide clues as to the direction of American national policy.³⁶

Always in fierce competition with the other services for the financial resources, the IJN staff quickly realized that “Mahan’s *Influence of Sea Power*...provided a weighty and sophisticated theory that Japan’s navalists could use to assert their budgetary appropriations in competition with the army.”³⁷ While this point may seem trivial, the ability to provide a logical, coherent argument for funding that is both based on proven historical maritime success and consistent with the current global maritime super-power must provide Beijing with a compelling argument for increased naval spending.

The IJN also took into consideration that Japan’s situation was not the same as the U.S. and accordingly, modified Mahan’s theories. Rather than prepare for “Mahan’s overriding emphasis on annihilation of the enemy fleet”, the IJN developed a strategy of “interceptive operations” where they would wait for the USN in Japanese waters before engaging in a “climactic Mahanian encounter.”³⁸ This ambush doctrine allowed the IJN to fight close to home while forcing the potential U.S. threat to contend with extremely long SLOCs. This doctrine also provides a “Western Pacific” interpretation of Mahan’s work and may well closely align with Chinese naval thought.

Rather than develop a blue-water navy capable of fighting anywhere in the Pacific, this ambush style of asymmetric warfare would allow the PLAN to achieve regional superiority, reduce the cost necessary for a global navy and fall in line with the

³⁶ S. Asada, *From Mahan to Pearl Harbor: The Imperial Japanese Navy and the United States* (Annapolis, Maryland: Naval Institute Press, 2006), 26.

³⁷ *Ibid.*, 26

³⁸ *Ibid.*, 32

Chinese emphasis on asymmetric warfare. “One goal appears to be to develop asymmetrical military capabilities with which China could defeat even a power as superior to China as the U.S. is admitted today.”³⁹ Given this focus on asymmetric warfare and previous regional interpretations of Mahan, it is reasonable to expect that China will employ a similar philosophy.

Another similarity between the China of today and Imperial Japan is the economic and military disparity both countries faced with the U.S. Admiral Satō Tetsutarō, often referred to as “the Mahan of Japan,” shaped his vision of the IJN based on this reality. His vision was based on Japan being a regional (East Asia) sea power. As a result of the differing U.S. and Japanese visions of sea power and expansion, “the applicability of the Mahan doctrines to the Japanese navy was limited.”⁴⁰ It is interesting to note that, regardless of extensive study of Mahan, the Japanese viewed his applicability to their situation as somewhat limited. That said, what is important is that while the “uniquely American” expansionist views and the corresponding “global reach” navy may not be applicable to the Japanese and Chinese case, the decisive fleet engagement (within the Western Pacific) certainly is and remains a real challenge for the U.S. When China’s propensity for asymmetric warfare is considered, the fact that the decisive engagement may be economic or informational cannot be overlooked. These other opportunities for “engagement” will be discussed in Chapter 5.

As Japanese naval thought matured during the first part of the 20th century, younger Japanese maritime theorists ignored the “uniquely American” aspects of

³⁹ J. R. Lilley and D. Shambaugh, eds., *China's Military Faces the Future* (Armonk, NY: M.E. Sharpe, 1999), 64.

⁴⁰ Asada, *From Mahan to Pearl Harbor: The Imperial Japanese Navy and the United States*, 37

Mahan's writings. Their "misuse and misapplication of Mahan's doctrines that ignored differences in geopolitical positions of the two nations were of course recipes for catastrophe."⁴¹ It is the historical "misuse" of Mahan's writings that cause concern over the Chinese embrace of the same theories. Might they also misinterpret the same theories and place themselves on a collision course with the U.S. as the Japanese did a century ago? This study of the IJN interpretation of Mahan provides some understanding on how China may interpret the writings of Mahan. Given the cost of building a global navy and the vast expanse of the Pacific it is reasonable that China will, at least initially, build a regional navy. Additionally, given the China's embrace of asymmetric warfare, it is also a reasonable expectation that they will, if required, fight close to home so that they can take advantage of short SLOCs while forcing any adversary to manage exceedingly long lines of communication. Now that the basic principles of Mahan's writings have been presented and a historical example provided, the issues specific to China are discussed.

⁴¹ *Ibid.*, 44

Chapter 3 – China’s Shifting Naval Environment, Approach and Area of Concentration

In order to place the discussion of China’s emergence as a maritime power in context, it is important to understand their current security environment. The following paragraphs provide a brief overview of the main factors affecting their security from the sea and provide the background information necessary to understand why there is an increased focus on maritime power within China.

Why - China’s Security Environment

China is a nation with nine thousand miles of coastline and six thousand islands yet, it has only recently turned its attention to the importance of a strong navy in the modern era.⁴² Over the past century, China’s security effort has necessarily been focused towards continental threats. During this time period, they waged war against Japan, the Soviet Union, Vietnam, India and the United States all of which had very little Chinese naval participation.⁴³

In the 1950s after the Korean War and subsequent U.S. containment policies, China entered into an alliance with the Soviet Union. As that alliance faltered the following decade, China faced a simultaneous threat from both superpowers. In

⁴² Note: The Chinese navy can trace its heritage back to 549 B.C., its first recorded naval battle. During the Han Dynasty (206 B.C. – A.D. 220) they conducted large scale naval operations. Chinese mariners were the first to use rudders and sails and developed their navigational skills to a very high level including the use of a portable compass. Chinese commercial shipping was travelling as far as south western Asia and western Africa by the end of the Tang Dynasty (A.D. 907). During the Song Dynasty (A.D. 960 – 1279), China boasted the most powerful and advanced navy in the world. A complete study of Chinese naval history is beyond the scope of the paper, the preceding information is provided to inform the reader of China’s rich maritime tradition, a tradition that has been largely abandoned in the past 100 years. Cole, *The Great Wall at Sea: China's Navy Enters the Twenty-First Century*, 2

⁴³ *Ibid.*, 8

particular, the Soviet Union posed a significant threat to China's periphery necessitating significant investment in land forces. By the mid sixties, the Soviet Union amassed approximately 54 divisions along the Chinese border. China's land threat was exacerbated by the Vietnam War, an effort that cost approximately \$20 billion U.S. dollars.⁴⁴ Throughout the Cold War, Southeast Asia became a staging ground for the invasion of China. From the Chinese perspective, both superpowers used the region as a key component in their strategies of encircling China. "These perceived threats of instability on China's border made the leadership of the People's Republic of China (PRC) feel that it needed to respond militarily, often at the expense of economic modernization." After the demise of the Soviet Union, China worked to create strong relations in the region so that Southeast Asian countries would not want the great powers back. Chinese analysts refer to Southeast Asia as the best place to break the US strategic encirclement.⁴⁵ The extreme pressure China faced from land threats lead to a strong army but a relatively weak navy. With the continental threat now greatly reduced, the Chinese leadership was free to focus on economic expansion and improving the quality of life for their population.

In their article *Mao Zedong, Meet Alfred Thayer Mahan*, Holmes and Yoshihara explain that the CCP has risked their legitimacy on the ability to improve the standard of living for as many of China's population as possible.⁴⁶ With their legitimacy on the line,

⁴⁴ Wang Zhongchun, "The Changes and Development of China's Peripheral Security Environment and its Defense Policy" Strategic Studies Institute, US Army War College, 23-25 April, 1996, 1996).

⁴⁵ M. A. Glosny, "Heading Toward a Win-Win Future? Recent Developments in China's Policy Toward Southeast Asia," *Asian Security* vol. 2, no.1 (2006), 24-57.

⁴⁶ J. Holmes and T. Yoshihara, "Mao Zedong, Meet Alfred Thayer Mahan: Strategic Theory and Chinese Sea Power," *Australian Defence Force Journal*, no. Issue no. 171 (2006), 35, <http://www.defence.gov.au/publications/dfj/index.htm> (accessed 30 September 2007).

continued economic improvement is essential. Western writers tend to claim that loss of economic momentum may undermine the current regime. Chinese writers also consider maintaining economic growth essential. Zhang Wenmu, a professor in the Centre of Strategic Studies at a Beijing University claims that “China must continue to move forward, for if it does not, the economy’s productive force could turn into a destructive one that leads to chaos and even violent civil unrest.”⁴⁷ Regardless of the point of view and political disposition of the writer, scholars on both sides of the argument consider maintenance of an expanding economy essential.

As a result of the high priority on economic development, the supply of resources necessary to fuel the economy must be safeguarded thus, “the command of communications on the sea” is essential for the future of the nation.⁴⁸ To highlight the importance to China of controlling their own SLOCs, Holmes and Yoshihara note Zhang’s contention that continued economic success “requires having naval forces at strategic locations to assure Chinese shipping of safe passage through the sea lanes. ‘It is extremely risky for a major power such as China to become dependent on foreign import without adequate protection.’”⁴⁹ The importance of secure SLOCs for China cannot be overemphasised. Any interruption to shipping would have catastrophic effects on China’s economy and internal security. China’s reliance on SLOCs is clearly a major vulnerability.

⁴⁷ Z. Wenmu, "Sea Power and China's Strategic Choices," *China Security* 2, no. 2 (2006), 18, http://www.chinasecurity.us/News_View.asp?NewsID=98.

⁴⁸ Holmes and Yoshihara, *China's "Caribbean" in the South China Sea*, 82

⁴⁹ *Ibid.*, 82-83

With an increasingly successful economy and greater reliance on foreign energy resources, China now views the sea as a critical national security vulnerability. “China’s offshore national security concerns – Taiwan, the South China Sea, and the sea lines of communication (SLOCs) – are the problems whose resolution will require the ability to prevail in a maritime environment.”⁵⁰ In an effort to defend these vulnerabilities, China is producing a larger, more capable navy. Having presented the background information of China’s security environment and the vital importance of their SLOCs, we now turn to Holmes and Yoshihara’s *China’s ‘Caribbean’ in the South China Sea*.

Discussion

Holmes and Yoshihara present several arguments concerning China’s maritime build up. Size and scope of this paper preclude lengthy discussion on all of the arguments however, the arguments most closely related to maritime power and Mahanian influence will now be discussed. The impact of globalization, or the “why” for maritime forces, is discussed to demonstrate the ongoing need for maritime development. Following that, the Holmes and Yoshihara article and other available literature is reviewed to determine potential fleet structures of the PLAN – the “what”. The final section in this chapter will examine possible Chinese doctrine development or the “how”.

What – Globalization and Shifting World Order

Holmes and Yoshihara discuss the impact that globalization may or may not have in great-power geopolitical competition. To provide a balanced argument, they note that “...rising powers no longer vie with the dominant powers to rule the waves or control key

⁵⁰ Cole, *The Great Wall at Sea: China's Navy Enters the Twenty-First Century*, 9

points on the map. Geopolitics has been relegated to the dustbin of history...”⁵¹ Clearly the message is that with so much of the world’s economies intermingled, any conflict would render the participants vulnerable to an unacceptable economic shock. Based on this approach, many believe globalization is a stabilizing factor that reduces the likelihood of international conflict.

In their counter argument, Holmes and Yoshihara quote Thomas Friedman who claims that “economic interdependence raises the costs of geopolitical ventures but does not end geopolitics altogether.”⁵² Additionally, they go on to note that “influential Chinese strategists do think in geopolitical terms...”⁵³ Holmes and Yoshihara make a rather weak case against globalization as a stabilizing factor in international relations. A more rigorous argument would alert the reader to the enormity of the potential threat of international conflict that remains today.

McDonald and Sweeney note in their article *The Achilles' Heel of Liberal IR Theory? Globalization and Conflict in the Pre-World War I Era* that “dramatic economic integration in the nineteenth century failed to prevent the increasing interstate hostilities that culminated in the outbreak of war in 1914.”⁵⁴ The fact that the First World War was the end of the first period of globalization demonstrated that prosperity and intertwined economies alone are not sufficient for eliminating the threat of conflict.

⁵¹ Holmes and Yoshihara, *China's "Caribbean" in the South China Sea*, 80

⁵² *Ibid.*, 80

⁵³ *Ibid.*, 80

⁵⁴ P. McDonald and K. Sweeney, "The Achilles Heel of Liberal IR Theory? Globalization and Conflict in the Pre-World War I Era," *World Politics* 59, no. 3 (2007), 370-370-403, http://muse.jhu.edu/login?uri=/journals/world_politics/v059/59.3mcdonald.html (accessed 11 March 2008).

In a more modern context, Rear Admiral (USN retired) Eric McVadon writes that globalization has served to raise the significance of maritime trade however, despite ongoing efforts to combat risks to this trade, the “risk is almost universally seen by senior naval commanders as both pervasive and growing steadily.”⁵⁵ Whether the risks are from interstate rivalry, piracy or terrorism, all represent threats to maritime trade and all require a naval presence to combat.

To further highlight that globalization does not eliminate geopolitics; one need only read recent Chinese writings. In building his argument for a strong PLAN, Zhang Wenmu suggests that due to China’s increasing dependence on foreign energy sources they cannot control economic development without some control over the energy imports that enable economic growth. He continues by referring to China’s inability to protect the SLOCs necessary to fuel its economy as “an Achilles heel to contemporary China, as it has forced China to entrust its fate (stable markets and access to resources) to others.”⁵⁶ In an increasingly globalized world, Zhang concludes that sufficient power to defend interests around the world is necessary to ensure access to the global market and that “economic globalization entails globalization of the military means for self-defense.”⁵⁷ A more thorough review of the historical lessons on globalization and recent Chinese writings provide a clearer indication that nations dependent on highly integrated economies for prosperity are not immune from conflict and in fact, may be more prone to use force to protect their national interests, where ever they may be.

⁵⁵ E. McVadon, "China and the United States on the High Seas," *China Security* 3, no. 4 (2007), 6, http://www.wsichina.org/cs8_1.pdf.

⁵⁶ Wenmu, *Sea Power and China's Strategic Choices*, 19,20

⁵⁷ *Ibid.*, 20

How - Chinese Fleet Composition and Doctrine

Holmes and Yoshihara look to “China’s Mahan”, Admiral Liu Huaqing and the 2004 Chinese White Paper to provide a glimpse at the potential PLAN of the future. Liu, who commanded the PLAN in the 1980s, has urged Beijing to “build a navy symmetrical to the U.S. Navy. By the mid-21st century...the PLA should put to sea a navy that centres on aircraft carriers and could project Chinese power to the furthest reaches of the Pacific while vying with the U.S. Navy for global supremacy.”⁵⁸ A build up of this magnitude would be a grave concern for the U.S. and may well initiate renewed naval competition. While Holmes and Yoshihara acknowledge that Liu had “no pressing political objectives in mind that should impel China to build a blue-water navy or to compete with the United States for global maritime supremacy”⁵⁹ they go no further on what the future Chinese fleet composition may be.

They do however, review the 2004 Chinese White Paper and acknowledge that it is “the Chinese leadership’s most authoritative appraisal yet of China’s strategic environment...”⁶⁰ As a result of their review of the White paper and other available references, they conclude that naval competition with the U.S. may well become a reality in the future, the arena for this competition will not be the vast Pacific as envisioned by Liu but the South China Sea.⁶¹ It is important to note that while the White Paper is considered the best reference for insight in to Chinese military thought, it is by no means

⁵⁸ Holmes and Yoshihara, *China's "Caribbean" in the South China Sea*, 83

⁵⁹ *Ibid.*, 83

⁶⁰ *Ibid.*, 84

⁶¹ *Ibid.*, 84,85

a transparent and ‘good’ view. The U.S. Office of the Secretary of Defense noted that no Chinese leader has explained the desired result of their military expansion and they also noted that Chinese defence spending is two to three times officially announced values.⁶² Having reviewed this portion of Holmes and Yoshihara’s work, we will now turn to the other writings on PLAN development to better understand the fleet structure and the corresponding threat.

A review of the 2004 Chinese White Paper reveals that the PLAN now enjoys top priority among the services. The paper also acknowledges that the Navy has “expanded the space and extended the depth for offshore defensive operations.” The ability to now conduct offshore defensive operations is a clear indicator that the Chinese leadership no longer considers their navy as a littoral navy. The PLAN has also been charged with increasing the preparation of the maritime battlespace and ensuring that “integrated combat capabilities are enhanced in conducting offshore campaigns, and the capability of nuclear counter-attacks is also enhanced.” The final PLAN specific direction of note is that the PLAN is to “reorganize the combat forces in a more scientific way while giving prominence to the building of maritime combat forces, especially amphibious combat forces.”⁶³

Given the clear and unambiguous strategic direction from the White Paper, there is no doubt that Mahan would consider the principle condition of Character of Government is being fulfilled by the current Chinese leadership. While the direction for

⁶² Office of the Secretary of Defense, *Annual Report to Congress: Military Power of the People's Republic of China 2006*, [2006] (accessed 12 March 2008).

⁶³ "The Chinese White Paper: China's National Defence in 2004," <http://www.fas.org/nuke/guide/china/doctrine/natdef2004.html> (accessed 03/11, 2008).

the PLAN to prepare the maritime battlespace is prudent and consistent with Western navies, the specific emphasis given to amphibious forces is a clear indicator of the Chinese government's desire to be able to put troops ashore. The reunification of Taiwan with the mainland is the most likely recipient of this new amphibious attention. In 2005, the PLA conducted amphibious exercises aimed at Taiwan. In September of that year, they conducted a large, joint exercise (inter-service, i.e. army, navy, air force and marine) that specifically emphasised the invasion of Taiwan. This was the 11th such "Taiwan focused" exercise since 1999.⁶⁴ China remains clearly focused on the "Taiwan issue." Additionally, the CCP faces the same challenge that has confounded many other modern governments seeking to increase maritime power – how and when to spend limited financial resources on new technology, training and force structure to best prepare for potential future conflicts.⁶⁵ The following sections examine recent PLAN procurements and force structure.

The PLAN has five separate branches namely: submarines, surface forces, naval aviation, coastal defence and a marine corps. These five branches are organized within three fleets – the North Sea Fleet, East Sea Fleet and South Sea Fleet. As their primary mission, they "are to guard against enemy invasion from the sea, defend the state's sovereignty over its territorial waters, and safeguard the state's maritime rights and interests."⁶⁶ Of particular interest is the liberal view China has of its economic exclusion

⁶⁴ Office of the Secretary of Defense, *Annual Report to Congress: Military Power of the People's Republic of China 2006*, 3

⁶⁵ A. S. Erickson and A. R. Wilson, "China's Aircraft Carrier Dilemma," *Naval War College Review* Vol. 59, no.4 (2006), 13, <http://www.nwc.navy.mil/press/review/documents/NWCRAU06.pdf> (accessed 30 September 2007).

⁶⁶ Office of Naval Intelligence, *China's Navy 2007*, <http://www.fas.org/irp/agency/oni/chinanavy2007.pdf> (accessed 29 Januar 2008).

importance of these strategic assets. Erikson and Goldstein quote Admiral Liu in his 2004 autobiography, emphasizing that “We must place great importance on submarines at all times...Nuclear powered submarines should be further improved and used as a strategic task force.”⁷⁰ From the recent building, it is evident that the current PLAN leadership also embraces Liu’s passion for submarines.

China’s focus on the submarine is neither new nor should it surprise the west. They are merely following the lead of their old ally, the Soviet Union. In his book *The Sea Power of the State* former Admiral of the Fleet of the Soviet Union and Commander-in-Chief of the Soviet Navy Sergi Gorshkov notes that submarine construction “made possible in a very short time to increase sharply the strike possibilities of our fleet, to form a considerable counter-balance to the main forces of the fleet of our enemy.”⁷¹ Clearly the Soviets understood the asymmetric effect of submarines and it would appear, based on the current rate of new construction, the Chinese also understand this effect.

The doctrine of extensive submarine employment in modern maritime warfare seems to have been embraced by PLAN strategic doctrine. Erikson and Goldstein quote the recent English-language volume on strategy “Stealth warships and submarines represent the modern sea battle platforms.”⁷² The “submarine centric” view on modern maritime warfare is also shared by authors at the PLAN Research Institute who “conclude that the submarine will become the most important naval vessel in the twenty-first century because of its stealthiness and its ability to destroy the large surface ships of

⁷⁰ Erickson and Goldstein, *China's Future Nuclear Submarine Force: Insights from Chinese Writings*, 57

⁷¹ S. G. Gorshkov, *The Sea Power and the State*, Original English ed. (Malabar, Florida: Robert E. Krieger Publishing Company Inc., 1979), 190.

⁷² Erickson and Goldstein, *China's Future Nuclear Submarine Force: Insights from Chinese Writings*, 57

a ‘superior’ enemy navy”⁷³ The Chinese focus on submarines could be alarming for the west. No other naval platform can so easily deny the enemy the use of the sea by simply proceeding to sea and diving. The mere threat of a submarine will provide any future commander tremendous challenge if they are required to enter contested waters. The disproportionate response required to ensure an area is “safe” for high value units such as aircraft carriers and their escorts will cost significant time and resources *in a best case scenario*. Should the submarine be aggressively handled by a tactically astute Commanding Officer, the cost

Taiwan, they may not have the necessary numbers of submarines required to “hold the line.”⁷⁵

In addition to attack submarines (nuclear or diesel powered) the PLAN is also launching nuclear submarines capable of firing nuclear armed ballistic missiles. The purpose of these submarines, according to the 2004 Defense White Paper is to deter nuclear attack and nuclear retaliation.⁷⁶ Although the world has become used to the threat of nuclear weapons, China’s capability should not be taken lightly. Beijing has consistently pronounced a “no first use” nuclear doctrine however, in July 2005, the Dean of the International Fellows Program at China’s National Defence University, Major General Zhu Chenghu stated “if Americans draw their missiles and position guided ammunition [sic] onto the target zone on China’s territory, I think we will have to respond with nuclear weapons.” CCP officials were quick to point out that this was Zhu’s personal opinion however; the fact that some senior officers are making statements such as these may provide a look at internal debates and bring the “no first use” policy into question.⁷⁷ Noting that China considers their EEZ as their sovereign territory, comments such as Zhu’s could be seriously noted.

Hand in hand with the building and procurement of new submarines, the PLAN has developed and purchased several advanced anti-ship missile systems. China may, within a few years, develop manoeuvring re-entry vehicles for their ballistic missiles. The combination of this capability with the advanced anti-ship missiles purchased from

⁷⁵ Fisher, *Trouble Below: China's Submarines Pose Regional, Strategic Challenges*

⁷⁶ Office of the Secretary of Defense, *Annual Report to Congress: Military Power of the People's Republic of China 2006*, 26

⁷⁷ *Ibid.*

Russia would give the PLAN submarine force the technical capability to conduct a coordinated large scale attack against any sized adversary fleet.⁷⁸ This is exactly the method of achieving command of the sea envisioned by Mahan – offensive action with a prepondering fleet.

The preceding paragraphs have provided a glimpse at the submarine force within the PLAN. While the majority of offensive power rests with the submarine force, this by no way means that the remainder of their navy is impotent. A review of other major combat capabilities and potential capabilities follows.

The Chinese Surface Forces

Although submarines are currently the vanguard of Chinese naval forces, they may not remain there. “The Chinese are still actively engaged with the carrier question” and, as Holmes and Yoshihara note, Admiral Liu remains adamant that PLAN forces eventually be centred on aircraft carriers which are perhaps, the ultimate expression of sea power.⁷⁹ Given Beijing’s determination to gain international prestige and respect as a maritime power, the aircraft carrier debate will likely continue for some years to come.

To date, the Chinese have already bought four aircraft carriers. The first, purchased from the Royal Australian Navy in 1985 was bought as scrap, the next two were ex-Soviet aircraft carriers that have been turned into military amusement parks and the final aircraft carrier was bought from the Ukraine in 1998 and delivered to China in 2000. The final carrier, named Varyag was purchased as a floating casino however; its high initial cost and lengthy refit would seem to contradict the originally stated

⁷⁸ E. McVadon, "China's Maturing Navy," *Naval War College Review* 59, no. 2 (2006), 96-97.

⁷⁹ Erickson and Wilson, *China's Aircraft Carrier Dilemma*, 16

intention.⁸⁰ Questions remain as to whether all aircraft carriers were purchased to gather an understanding on carrier construction and design. Speculation remains on whether China will buy, build or refit an aircraft carrier or if they will develop a carrier capability at all.

Regardless of China's aircraft carrier capability, the PLAN is making significant improvements to its surface forces. They have already received advanced Russian-made destroyers (Sovermenny II) fitted with advanced anti-ship missiles and wide-area air defence systems. Additionally, China continues domestic production of anti-air warfare destroyers (Luzhou class).⁸¹ These surface ships represent a significant capability with highly advanced anti-ship capabilities.

Having provided a brief overview of the Chinese fleet and the capabilities that come with that fleet structure, it is clearly evident that the PLAN is a "submarine-centric" force with numerous platforms capable of launching highly technological anti-ship missiles. The very nature of a submarine centred force allows for the PLAN to easily deny vast areas of sea to the enemy and the disproportionate response required will pose enormous challenge to any force vying for contested waters. Additionally, it is clear the aircraft carrier debate is not over and China may still put this modern day "crown jewel" of Mahanian sea power to sea. Finally, newly purchased and domestically built surface ships are giving the PLAN a modern, robust anti-air and anti-surface capability. It is curious that Holmes and Yoshihara would argue that "'incipient competition' with the

⁸⁰ *Ibid.*, 21

⁸¹ Office of Naval Intelligence, *China's Navy 2007*, 4-5

United States...could become a reality in the not to distant future...”⁸² When one considers the tremendous firepower of the Chinese navy and the fact that geography will allow them concentration of force, the USN and PLAN are already in competition.

While the investment in equipment is impressive, Admiral McVadon raises the critical question: “...whether and how promptly the PLA Navy and the other crucial components of the PLA will make all this capability truly operational.”⁸³ To understand the PLAN’s ability to use their new, technologically advance equipment, a study of doctrine follows.

PLAN Doctrine and Training

The PLAN is now recovering from years of neglect. During the Cold War while facing many continental threats, Chinese naval development was severely behind that of western powers. The PLAN either was late or missed altogether in the developments in antiair, antisurface, and antisubmarine warfare as well as the use of ship-borne helicopters. The introduction of automation to command and control, gunnery and machinery control systems was also very late.⁸⁴ As a result, the PLAN faces both a technological gap, which is now closing, and a doctrinal deficit. Both are essential elements for a combat capable maritime force. A review of PLAN doctrine is essential in determining if all of their new equipment could be effective in combat.

Captain (USN Retired) Wayne Hughes writes in *Fleet Tactics and Coastal Combat*, that doctrine is one of the cornerstones of naval tactics. He defines doctrine as

⁸² Holmes and Yoshihara, *China's "Caribbean" in the South China Sea*, 85

⁸³ McVadon, *China's Maturing Navy*, 101

⁸⁴ Cole, *The Great Wall at Sea: China's Navy Enters the Twenty-First Century*, 23

“the commander’s way of controlling his forces in writing, before military action. Doctrine enunciates policies and procedures that govern action.”⁸⁵ Mahan’s writings provide “universally applicable naval theories” but without a capable fleet or the necessary doctrine to properly employ that fleet, these theories cannot be put to practice. Just as a study of PLAN fleet capabilities is important to understand the “real” threat, so to is the study of PLAN doctrine. This study provides valuable information as to PLAN readiness and likely courses of action should conflict arise in any of China’s maritime areas. There is one important caveat that needs to be added prior to an analysis on Chinese doctrine. Given the secretive nature of the Chinese government and the PLAN, it is difficult to gain a total understanding of Chinese doctrine but, there is sufficient writing to provide a broad overview and give some key indications of the current state of their doctrine.

The PLAN is a component of the much larger and over arching People’s Liberation Army (PLA). As a result, much of the strategic guidance tends to be rich in army jargon. The current capstone strategic document in the PLA is *The National Military Strategic Guidance for the New Period*. These are guidelines that contain two major components and provided the strategic direction that led to the modernization of the PLAN.⁸⁶

The first of these major guidelines is about reforming and modernizing China’s forces and is referred to as “Army Building.” Within this guideline are two separate transformation programs. The first is about technical transformation. The PLA intends

⁸⁵ W. P. Hughes, *Fleet Tactics and Coastal Combat*, 2nd ed. (Annapolis, Maryland: Naval Institute Press, 2000), 29.

⁸⁶ Office of Naval Intelligence, *China’s Navy 2007*, 23-24

on transforming from a local, “ordinary” fight army to a local, modern and high tech fight army. Secondly, they will transition from an army based on quantity to an army based on quality.⁸⁷ The investment in new equipment and development of advanced weapon technologies is a very concrete demonstration of PLAN commitment to the transformation guideline.

The second major guideline is an operational component that “provides a broad and overarching set of fundamental approaches to the conduct of war.” This component, used by all elements within the PLA, is referred to as “Active Defence.”⁸⁸ The Office of the U.S. Secretary of Defense notes that Active Defence is a “guideline that posits a defensive military strategy and asserts that China does not initiate wars or fight wars of aggression, but engages in war only to defend national sovereignty and territorial integrity.” What complicates this seemingly passive policy is that Beijing could use pre-emption to justify an attack. In fact, their intervention in Korea (1950-1953) and border conflicts with India (1962), the Soviet Union (1969), and Vietnam (1979) are all considered “Self-Defence Counter Attacks” within authoritative Chinese texts. The policy is further confused by the Chinese response within Active Defence once hostilities begin. The PLA text *Science of Campaigns* states that “The essence of this strategic guideline of active defence is to take the initiative and to annihilate the enemy... While strategically the guideline is active defense, in military campaigns... the emphasis is placed on taking the initiative in active offense...”⁸⁹ Clearly the transition to an

⁸⁷ *Ibid*, 24.

⁸⁸ *Ibid*, 24.

⁸⁹ Office of the Secretary of Defense, *Annual Report to Congress: Military Power of the People's Republic of China 2006*, 13-14

offensive nature of this doctrine at the operational level is very much inline with Mahanian thought.

The concept of Active Defence, within the PLAN, is further refined and referred to as “Offshore Defence.” Many who study the PLAN have often tied the concept of Offshore Defence to operational reach and maritime geography however, “Research strongly suggests that, today, the term “Offshore Defense” does not imply any geographic limits or boundaries.”⁹⁰ The lack of any geographic limit and the offensive nature of Active Defence (once hostilities have started) means that the PLAN can be expected to seek out and engage enemies to the maximum extent of their reach. If the new *Shang* class of SSN proves a capable platform, its virtually unlimited range will mean that these counterattacks should be expected anywhere in the Pacific.

Doctrine development within the PLA is typical of what one would expect of a large bureaucratic, conservative organization – it takes time. Most major changes and reforms are required to pass sequentially through a 10-step process with a time frame for implementation measured in years.⁹¹ In a fast paced modern war, slow reaction time and systemic inability to respond to the rapid pace of an intelligent and changing enemy could prove a significant vulnerability to the PLA. A more self-improving and quick reacting force may well be able to quickly enter and operate within the PLAN Orient-Observe-Decide-Act (OODA) loop.⁹²

⁹⁰ Office of Naval Intelligence, *China's Navy 2007*, 26

⁹¹ *Ibid*, 29-30.

⁹² “The OODA loop sequence in decision making is Observe, Orient, Decide, and then Act. Observe the situation, then orient yourself, decide on an action, then act. This description of a decision making cycle is attributed to Col. John Boyd. Boyd states that the orientation phase of the loop is the most important step, because if the enemy perceives the wrong threats, or misunderstands what is happening in the environment around him, then he will orient his thinking (and forces) in wrong directions and ultimately make incorrect

PLAN doctrine certainly seems to support the increased technical capability of their fleet however; broad sweeping strategic statements are easy to make. The more important question is does the PLAN have the ability to turn the strategic direction into the desired operational and tactical level outcomes required? In his article *China's Maturing Navy*, McVadon contends that "this "new PLA Navy" has not matured fully in exercising its forces and developing the command and control capabilities, coordination means and intelligence and targeting support needed to make that force fully operational..."⁹³ All of the functions noted by McVadon are essentially elements within the Command, Control, Information and Communications (C3I) that are necessary to achieve the synergistic effect of coordinated fleet actions.

To compound the magnitude of these shortcomings, the PLAN is still not challenging itself with demanding exercises that are necessary to move beyond their littoral roots. This argument certainly challenges the competency of the PLAN but, it must be remembered that "On 26 October 2006, a Chinese Song-class attack submarine surfaced in close proximity to the USS Kitty Hawk carrier battle group..."⁹⁴ Given the difficulty of approaching a screened aircraft carrier, the Chinese submarine is either more competent than McVadon gives the PLAN credit, caught the U.S. Carrier Strike Group unalerted or, was lucky. No matter how the approach happened, this incident clearly

decisions. Boyd said that this cycle of decision-making could operate at different speeds for the enemy and your own organization. The goal should be to to complete your OODA loop process at a faster tempo than the enemy's, and to take action to lengthen the enemy's loop."

"OODA Loop," <http://www.planningskills.com/glossary/167.php> (accessed 03/15, 2008).

⁹³ McVadon, *China's Maturing Navy*, 94

⁹⁴ Erickson and Goldstein,

demonstrates that, regardless of the differences in competencies, the PLAN is capable of inflicting serious damage and should not be taken lightly.

Notwithstanding the above mentioned incident, China seems to be overemphasizing the technical aspects of “Army Building” within officer education. McVadon points out that while the PLAN is seeking officers graduating from “first rate civilian universities” they continue to emphasize technical and scientific education.⁹⁵ While he examined the training taken within the PLAN, he has not examined training that officers may receive outside the People’s Liberation Army. Ultimately, as the military arm of the Chinese Communist Party, much of the leadership and more ‘liberal’ aspects of western military thought are controlled by the CCP (vice the PLA) to maintain the loyalty of the armed forces.

Mahan had a similar concern about overly technical training in the USN of his day. Sumida notes that Mahan felt constant technical innovations adversely affected “command confidence and authority.” So concerned was Mahan that, just prior to the release of *The Influence of Sea Power upon History 1660-1783* he wrote a friend in the UK noting that he had “great hopes that it will in a short time make some substantial contribution to naval thought, and perhaps persuade our people that naval matériel is not all the battle: that first-rate men in second-rate ships are better than second-rate men in first-rate ships.”⁹⁶ Mahan clearly recognized that technical improvements are essential in a modern navy but, he was concerned that they had an adverse effect on the liberal thinking needed of command. China’s emphasis on improving technology and the

⁹⁵ McVadon, *China's Maturing Navy*, 94

⁹⁶ J. T. Sumida, *Inventing Grand Strategy and Teaching Command: The Classic Works of Alfred Thayer Mahan Reconsidered* (Baltimore, Maryland: The John Hopkins University Press, 1997), 24.

technical education of their officers certainly brings into question whether they have achieved the right balance.

Another issue within the PLAN that McVadon addresses is the competency of senior leadership. Having had contact with several officers within the PLAN, he is able to provide especially insightful comments. Perhaps the most telling problem is the continued advancement of officers to very senior positions based on political loyalty rather than professional competencies. McVadon “has observed and been told, there is still much deadwood at the top: individuals ... who persist in treating the PLAN as mostly an adjunct to the army... who, through lack of vision, fail to move decisively toward true joint operations. These generals represent obstacles...”⁹⁷ Leadership like this is obviously a severe handicap towards becoming a more effective navy that promotes the intellectual, original thought necessary to develop tactical competence commensurate with the PLAN’s technical capability.

It is difficult to assess the true capability of the PLAN. They currently have the technical capacity supported by the strategic doctrine necessary to dissuade all but the most robust and determined forces. Additionally, the extremely aggressive nature of their Active Defence policy should be cause for concern and will likely ensure any potential adversary move very cautiously during times of tension. McVadon’s observations certainly call into question both the competency of the PLAN to conduct advanced operations and whether the current leadership has the foresight necessary to move the PLAN forward within the CCP’s strategic direction.

This chapter has examined the why, what and how of China’s emergence as a maritime power. The why is in response to China’s economic dependence on SLOCs for

⁹⁷ McVadon, *China's Maturing Navy*, 94-95

importing the raw materials and energy necessary to fuel their booming economy and exporting the commodities that bring wealth. The what or cause of this is the Chinese government's effort to improve living conditions through economic growth and the resultantly increased interdependence on world economies and globalization. While many may argue that this increased interdependence with other countries may limit or reduce the need for confrontation, it was shown that the first great period of globalization ended with First World War; globalization does not end the need for defence. Finally the how or PLAN composition, modernization and doctrine was reviewed. This review showed a submarine-centric navy with the offensive capability necessary to engage in a Mahanian style grand fleet engagement. Additionally, the offensive nature of Active Defence and PLAN doctrine was discussed. The next key issue is the 'where'. According to Holmes and Yoshihara the 'where' is the South China Sea which they describe as China's Caribbean.

Chapter 4 – Where, the South China Sea?

Holmes and Yoshihara state that the geopolitical thinking evident in China's 2004 Defence White Paper and the transformed structure of the PLAN are indicative of strong Mahanian influence. They go on to point out that Western analysts should consider "how a Beijing versed in Mahanian ideas will view littoral waters such as the South China Sea."⁹⁸ A discussion on China's littoral follows.

China's Caribbean

Holmes and Yoshihara assert that the South China Sea, at least partially, resembles the Caribbean and go on to suggest that the similarities and differences illuminate China's likely maritime strategy in the region. They also noted that Mahan, when discussing the Caribbean, observed there was only one great power nearby; it was "pre-eminently the domain of sea power;" that the U.S. held "the position of pre-eminent commercial importance" in the region; and that they had the potential to become the main sea power in the region.⁹⁹ The similarities with China's current situation are striking. China is the only great power in the region of the South China Sea, they are the region's economic leader, the South China Sea is also the domain of sea power, and as shown in previous chapters, China has the potential (and has already started) to become a great sea power.

The similarities do not end with geography and economic circumstance. Like the U.S. of Mahan's time, China is dealing with a "distinctly preponderant navy" operated

⁹⁸ Holmes and Yoshihara, *China's "Caribbean" in the South China Sea*, 85.

⁹⁹ *Ibid.*, 87.

by a global hegemon.”¹⁰⁰ Similar to the early 20th century, today’s global force also shoulders global responsibilities, responsibilities that would limit any response force that could send to the South China Sea. A PLAN strategist, well versed in the readings of Mahan would be aware of these similarities and exploitable vulnerabilities.

Recall from Chapter 2 that the first of the principle conditions that Mahan considered necessary for a country to exert sea power was Geographical Position. In particular, the one element of this principle condition that gave nations a special strategic importance was proximity to important SLOCs. Also, Mahan, as noted in Holmes and Yoshihara asserts that “Communication ... was ‘the most important single element in strategy, political or military.’ The eminence of sea power lay in its ability to control the sea lines of communication.”¹⁰¹ China’s geopolitical reality (China is the closest global power to the Strait of Malacca), Mahan’s emphasis on the importance of controlling communication, and the enormous success enjoyed by the U.S. since following Mahan’s sea power theories must tempt Beijing to follow this proven model that elevated the U.S to become the only global super power.

Holmes and Yoshihara have painted a picture of today’s China being very much like the U.S. of Mahan’s time however, they have stopped short of giving the reader a comprehensive interpretation of what this similarity means. Additionally, they do not discuss the differences between the two navies that also provide insight into potential future directions the PLAN may take. A discussion of some of the differences follows in

¹⁰⁰ *Ibid.*, 88

¹⁰¹ *Ibid.*, 82

the next few paragraphs to provide a more realistic view of China's current situation and likely courses of action.

A continental power, China must manage borders with 15 countries, many with whom they have a lengthy history of disputes. As a result of this "periphery challenge," China needs to maintain international legitimacy or it may well face its old border challenges once again. In his book *China Rising*, Deng notes that "What distinguishes China's present status conception is its emphasis on both material power and international legitimacy."¹⁰² Clearly the requirement to maintain legitimacy will temper potentially controversial action contemplated by Beijing.

Unlike the dynamic between the U.S. and U.K. of a century ago, China requires significant access to its potential adversary's (the U.S.) economy for modernization efforts. While in chapter 3, globalization was shown not to prohibit conflict, the requirement for access specifically to U.S. markets will most certainly have a moderating effect on Beijing policy making. When the relations that the U.S. enjoys with some of China's neighbours are also taken into consideration, "The importance of US markets, investment, and technology for China's economic modernization, as well as of US relations with ... regional actors in affecting the stability of China's periphery, make the United States the outside power with the greatest potential influence ..."¹⁰³ How the U.S. exercises this influence will most likely set the tone for future Sino-American relations.

China's legitimacy and requirement for access to the U.S. economy may be moderating factors in Beijing policy however; Deng also points out that "Chinese

¹⁰² Deng and Wang, *China Rising*, 51

¹⁰³ Glosny, *Heading Toward a Win-Win Future? Recent Developments in China's Policy Toward Southeast Asia*, 24-57

analysts tend to assess status not just in terms of China's ranking in the power hierarchy but also in its ability to protect its interests and project influence in the international arena."¹⁰⁴ Clearly, maintaining international legitimacy while having the ability to project influence internationally will be an enormous challenge. The degree to which Beijing wishes to project influence abroad will define the future of the PLAN.

In following Mahan's model for sea power, Chinese leadership may also have looked to his writings for guidance on fleet size. They would have noted that he urged the U.S. to build a navy able to "fight, with reasonable chances of success, the largest force likely to be brought against it" in regions where the U.S. would need to protect their national interests.¹⁰⁵ The build up and combat capability of the PLAN discussed in the previous chapter is a clear indication that China has developed a fleet capable of fighting a large force in the waters adjacent to China. If they are following this advice on fleet size, we can expect that fleet build up would be nearly complete.

Unfortunately, Mahan's writings on fleet size were not quite that simple. He also provided further guidance in other writings. When discussing U.S. naval requirements in *The Influence of Sea Power*, Mahan commented "The question is eminently one in which the influence of the government should make itself felt, to build up for the nation a navy which, if not capable of reaching distant countries, shall at least be able to keep clear the chief approaches to its own."¹⁰⁶ Clearly, Mahan viewed a "self-defence" navy as the minimum sized navy. However, he believed that rather than resorting to a self-defence

¹⁰⁴ Deng and Wang, *China Rising*, 53

¹⁰⁵ Holmes and Yoshihara, *China's "Caribbean" in the South China Sea*, 82.

¹⁰⁶ Mahan, *The Influence of Sea Power upon History: 1660-1783*, 79

only navy that, “A modest navy could be strong enough to deter the leading naval power when geographical and other circumstances were taken into account...” In fact, Mahan felt that this approach was ideally suited for the U.S. to deal with the Royal Navy given their long SLOCs and other global commitments.¹⁰⁷ Mahan’s modest navy concept allows a smaller power to take advantage of geography and the long, difficult to maintain, SLOCs of potential adversaries. Following this construct, the PLAN need only develop a fleet capable of operating from the Middle East to China. Should a Sino-American conflict arise, the PLAN would be able to fi

This chapter has shown the remarkable similarities highlighted by Holmes and Yoshihara between today's China and the U.S. of Mahan's day. More specifically, they noted the strategic similarities between the South China Sea of today and the Caribbean of Mahan's time. Unfortunately, they stopped short of a complete analysis that would expose some of the vulnerabilities of both China and the U.S..

China's focus on maintaining international legitimacy and requirement for access to American markets will provide the U.S. with significant influence in Beijing. Additionally, unlike the U.S. of a century ago, China faces, and will continue to face, a significant periphery challenge. Given China's neglect of the PLAN during the Cold War, it seems reasonable to suggest that continental threats will detract Beijing from PLAN build-up and force them to shift focus, and potentially resources, to the PLA.

A review of how Mahan may influence PLAN size was also conducted. This revealed that as a minimum, a Mahan influenced strategy would require a nation to build fleet capable of defending its shores. A more aggressive plan and the one Mahan argued for the U.S. was the "modest navy", a navy that could, considering geographic advantage and the size of fleet an enemy would likely be able to assemble (considering their other obligations) deter a much larger force. This "modest navy" has the advantage of cost savings and is a likely course of action for the PLAN. It was noted however, that some Chinese analysts believe that technology is changing the effect of maritime geography – a belief that could see the PLAN develop into a global reach navy.

The next chapter will examine the implications of the findings of the previous chapters. In particular, the mix of Mahan, the South China Sea as China's Caribbean,

PLAN structure and doctrine will be reviewed and possible Chinese applications discussed.

Chapter 5 – Strategic Implications

Holmes and Yoshihara consider that “China presents the United States with a host of challenges as it turns its attentions and energies seaward.”¹⁰⁹ As they conclude their paper, they leave the reader with several important, but unanswered questions.

Unfortunately they have, in the author’s opinion, overlooked a critical issue. Where does Mahan’s influence on the PLAN fit into the larger Chinese strategic plan? And, more importantly, what is the Chinese strategic plan?

China is currently focusing on increasing their reliance on technology and the ability of the inferior to beat the superior through asymmetric warfare. There are many definitions of asymmetric warfare available however, most have in common that a smaller power applies force against the vulnerabilities of a larger power to achieve a disproportionate result. What is unique to China is their search for new technologies to help in asymmetric warfare. In fact, China views the current “Revolution in Military Affairs” as an opportunity to “...tailor new technology to ‘defeat the superior with the inferior’ with a strategy of asymmetric warfare.”¹¹⁰

As China embraces technology, they have inter alia developed the capability to destroy satellites from land based missiles. Additionally, there is now speculation that the missile developed for their new ballistic missile submarine may be capable of carrying a warhead with an anti-satellite capability.¹¹¹ This provides China with the

¹⁰⁹ Holmes and Yoshihara, *China's "Caribbean" in the South China Sea*, 89

¹¹⁰ Lilley and Shambaugh, *China's Military Faces the Future*, 66

¹¹¹ B. Gertz, "Inside the Ring," *The Washington Times* 2008, <http://washingtontimes.com/apps/pbcs.dll/article?AID=/20080118/NATION04/696008582/1008> (accessed 18 January 2008).

ability to significantly degrade the U.S. dominance and reliance on satellite technology affecting everything from communications to intelligence and navigation satellites. Not only has China developed this capability, their current military thinking advocates its use. The former senior engineer at the Beijing Institute of System Engineering “writes that future C3I systems will be crucial, so that attacking and protecting space satellites, airborne early warning aircraft and electronic warfare aircraft and ground command sites will become important forms of combat.”¹¹² Chang does not stop at just attacking satellites, he also notes that “...we must gain air and sea superiority, but win information superiority first of all. [He identifies] information deterrence will be a new operational concept.”¹¹³ China’s focus on information warfare and the combination of technology and asymmetry pose significant challenges to the west.

In addition to high-tech anti-satellite systems, the Chinese are also heavily involved in the information revolution. Indeed, they consider “National power...will increasingly be dependent on the ability to process and transmit information faster and cheaper than anyone else...The Chinese have paid a lot of attention to the information revolution.”¹¹⁴ Written in 1994, this statement shows an early Chinese interest in the processing and distribution of information. Since then, China has become a world leader in cyber warfare. U.S. Air Force Lieutenant General Robert Elder, Commander of the new Air Force Cyber Command comments that “China has put a lot of resources into this business...[and they are] not interested so much in attack as they are in using the Internet

¹¹² Lilley and Shambaugh, *China's Military Faces the Future*, 69

¹¹³ *Ibid.*, 69

¹¹⁴ T. W. Robinson and D. Shambaugh, eds., *Chinese Foreign Policy* (Great Britain: Oxford University Press, 1994), 188.

to pull [industrial] data. They're interested in doing this in a way that they can be dominant without even having a fight.”¹¹⁵ The ability for China to attack satellites poses a significant risk to western military operations and their ability to distribute the information that is necessary in timely decision making. The focus on cyber warfare potentially provides the PLA a much broader payoff. Their focus could be simple intelligence gathering or a more devious attempt to “Wreak social havoc...deflating morale among the populace...”¹¹⁶ Regardless of the PLA intent, this is another asymmetric threat requiring significant attention and resources that cannot otherwise be used for traditional “combat capabilities.”

What is unique about China’s technologically advanced “asymmetric” threats and PLAN modernization is that they have a disproportionate effect requiring a disproportionate defence. It is this overwhelming, expensive response that China’s turn to Mahan may have its greatest effect. As a global power with global responsibilities, the U.S. cannot allow itself to be at a technological disadvantage. In the face of new threats (anti-satellite missiles, cyber attacks) or an increased threat (a more capable PLAN) the U.S. will be forced to invest heavily to either develop or improve capability. China’s approach or at least the potential effect of their approach, is remarkably similar to the U.S. outspending the Soviets to end the Cold War, and is perhaps a more significant lesson from history than the South China Sea – Caribbean comparison espoused by

¹¹⁵ "Chinese Cyberwar Alert!" <http://www.defensetech.org/archives/003548.html> (accessed 03/23, 2008).

¹¹⁶ J. R. Holmes and T. Yoshihara, *Chinese Naval Strategy in the 21st Century: The Turn to Mahan* (New York, NY: Routledge, 2008), 99.

Holmes and Yoshihara.¹¹⁷ The major difference between today and the Cold War is that China is not outspending the U.S., merely making them outspend themselves.

It is here that we see ancient Chinese strategy mix with (relatively) modern western maritime theory. In his offensive strategies, Sun Tzu said “For to win one hundred victories in one hundred battles is not the acme of skill. To subdue the enemy without fighting is the acme of skill.”¹¹⁸ Given China’s emphasis on highly technological asymmetric threats requiring equally highly technological responses, they are essentially forcing the U.S. to spend significant resources to counter their new technologies. They are already conducting “asymmetric economic warfare” against the U.S. and need only be patient while their economy continues to grow and the combination of increased American defence spending and an aging U.S. population cause the American economy to falter. They are on the road to victory without having fired a shot. A book written by then (1996) director of Foreign Military Studies at the National Defence University, Major General Li Zhiyun “...represents a common theme in PLA views of future warfare – America is proclaimed to be a declining power with but two or three decades of primacy left. U.S. military forces, while dangerous at present, are vulnerable, even deeply flawed...”¹¹⁹

China has extended the concept of a “Fleet-in-Being” so that it is now the foundation for their entire defence. Norman Friedman describes a Fleet-in-Being as “The obverse of the dominant main fleet, which can win a decisive battle...[it is]...the inferior fleet that refuses to battle but, by its existence, hobbles the stronger fleet.”¹²⁰ The growth of Chinese defence and the introduction of new technologies is having a similar, albeit wider, effect. Within his chapter devoted to the Fleet-in-Being, British maritime power theorist Julian Corbett asserts that theory and history “affirm that a Power too weak to win command by offensive operations may yet succeed in holding the command in dispute by assuming a general defensive attitude.”¹²¹ This view is entirely consistent with the Chinese doctrine of Active Defence. Corbett also notes that “Both on land and at sea defence means of course taking certain measures to defer a decision until military or political developments so far redress the balance of strength...”¹²² So, by using the theories of Mahan to build a fleet capable of localized Command of the Sea and threatening to break out into the Pacific, the Chinese have established a Fleet-in-Being that requires constant U.S. attention, energy, and resources to counter. By leveraging technology to create new weapon systems that yield enormously disproportionate results, the entire Chinese defence has become like a Fleet-in-Being that will require a massive long-term investment for the U.S. to counter.

This chapter has taken more of a “big picture” look at how a Mahanian PLAN might fit into China’s grand strategy. In pursuing a highly technological navy, China is

¹²⁰ N. Friedman, *Seapower as Strategy: Navies and National Interests* (Annapolis, Maryland: Naval Institute Press, 2001), 88.

¹²¹ J. S. Corbett, *Principles of Maritime Strategy* [Some Principles of Maritime Strategy] (Mineola, NY: Dover Publications, 2004), 211.

¹²² *Ibid.*, 213

forcing the U.S. to keep pace if they wish to counter the increased threat. By focusing on capabilities that are extremely difficult to counter (submarines in particular), China is forcing the U.S. to be prepared to commit a disproportionate response if they wish to be able to safely operate near China in a time of tension. Finally, the Chinese development of anti-satellite missiles and cyber warfare present new threats to the U.S. that require significant development and continuation costs. Given this list of compelling evidence, the author concludes that China is undertaking a grand strategy of forcing the U.S. to make an investment in defence disproportionate to the Chinese investment and is attempting to force the U.S. to outspend their resources. In short, China is working to subdue the U.S., if the need should arise, without firing a shot.

Chapter 6 – Conclusions

This paper examined China's turn to the writing of Alfred Thayer Mahan. To better understand and introduce many of the issues, a paper written by James Holmes and Toshi Yoshihara entitled *China's "Caribbean" in the South China Sea* was examined. This approach has allowed us to directly highlight many of the issues and provided a "point of departure" for several discussions.

Mahan's requirements for nations to become a sea power were examined to both provide context for the discussions that would follow and to introduce readers to some of the works of Mahan. This examination proved useful in that it identified that both China and the U.S. meet all of Mahan's principle conditions necessary to exercise sea power. In particular, it was noted that China enjoyed an advantage in almost every principle condition of sea power. It is important to note though, that the principle condition of Geographical position considers proximity to land threats as a major consideration in determining if a country can become a sea power. China's shared border (with fifteen countries) has often been the source of conflict and it is only since the reduction of a land threat that they have been able to turn to the sea. China's periphery and the requirement to ensure its stability is a significant vulnerability.

The Imperial Japanese Navy's use of Mahan was also examined in this chapter to provide some insight on how China, with a similar maritime problem, might interpret Mahan. It was noted that some Japanese maritime theorists chose to ignore the "uniquely American" aspects of Mahan's writings leading Japan on a collision course with the U.S. The study of the IJN showed that, given the cost of building a global navy and the vast

expanse of the Pacific, it is reasonable that China will start with building a strong regional navy.

Chapter three examined the why, what and how of China's emergence as a maritime power. There was strong agreement between Eastern and Western writers that China must continue on its path of economic growth and in order to maintain this economic growth, China must import approximately half of their energy needs. The reliance on foreign energy and China's inability to protect the Sea Lines of Communication on which this energy travels has caused a significant vulnerability that can only be defended by a strong navy.

The chapter concluded with a discussion on current PLAN fleet composition, how the fleet may grow, and PLAN doctrine. This discussion showed a submarine-centric navy with the offensive capability necessary to engage in a Mahanian style grand fleet engagement and also discussed the offensive nature of Active Defence. The inability of the PLAN to quickly reformulate doctrine was noted and is considered a significant constraint on the Chinese side, and limits the prospect for imminent action or threat, in the short to medium-term.

Chapter four discussed the similarities between the South China Sea of today and the Caribbean of Mahan's day. However, where Holmes and Yoshihara stopped with the similarities, some of the important differences between the U.S. for the Caribbean in the earlier century, and now China for Southwest Asia, and their significances were discussed. The periphery challenge was again highlighted and the requirements for China to maintain international legitimacy and retain access to U.S. and other developed

markets were also discussed. These last two requirements were identified as giving the U.S. significant external influence on policy making in Beijing.

Also in this chapter, Mahan's potential influence on fleet size was discussed. The concept of the "modest navy" (that which Mahan argued for the U.S.) was introduced but this potential fleet size may be offset by the belief of some Chinese experts that technology is changing maritime geography. Given the cost benefits of a "modest navy", the Fleet-in-Being benefits of the PLAN and indeed all of the PLA's new technologies, the "modest navy" is China's most likely course of action.

Chapter five took a more "big picture" look at how a Mahanian PLAN might fit into China's grand strategy. By investing in a highly technological navy and submarines in particular, the Chinese are forcing the U.S. to invest heavily to be able to counter the threat they pose. The PLAN's ability for sea denial would necessarily mean that an American response to the Chinese littoral during times of tension will require a massive USN effort to neutralize the PLAN submarine threat. Furthermore, even after massive force commitments, there can be no a priori guarantee that the region will be safe for operations.

Information as an operational concept was discussed and the threats to satellite based technologies as well as cyber attacks were introduced. The disproportionate response required by the U.S. to manage these threats in peacetime demonstrated that, much like the U.S. outspending the Soviet Union to end the Cold War, the Chinese are employing an asymmetric version of the same philosophy. They are forcing the U.S. to outspend themselves.

This paper has shown that, like Holmes and Yoshihara contend, there are several similarities between the China of today and the U.S. of Mahan's time. Unlike their article however, this paper has delved deeper into certain areas considered important for a true assessment of Chinese intent. When China's military investment is looked at and weighed against their requirement to maintain the international legitimacy that is fundamental to a secure periphery, it is clear that Mahan's "modest navy" capable of regional operations is the most likely end state for PLAN development for the short to medium term.

Chinese leadership has sagaciously embarked on a program to increase military spending and improve capability. They have chosen a path that will provide them with a greatly improved PLA while necessarily compelling any rivals to invest heavily or "move out of the way." Prudence dictates that while the West maintains an ability to defend against such a build up, a calculated response is required to avoid entering a new arms race with an emerging power.

The continued development of the PLAN and the advances of all Chinese military capability will require constant monitoring by the west. Secrecy within the Chinese leadership make this problem especially challenging however, as new capabilities arise, the west must continually update assessments of intent and desired end state. Future research should not only continue these assessments but also examine Chinese vulnerabilities, both pre-existing and new, that allow for the potential to counter-balance.

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