

Becoming a Great “Maritime Power”: A Chinese Dream

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Photography Credit: Chinese carrier *Liaoning* launching a J-15. PLAN photo. <https://news.usni.org/2014/06/09/chinese-weapons-worry-pentagon>.

Approved by:

June 2016

A handwritten signature in black ink, appearing to be 'Eric Thompson', written over a horizontal line.

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Abstract

In November 2012, then president Hu Jintao declared that China's objective was to become a strong or great maritime power. This report, based on papers written by China experts for this CNA project, explores that decision and the implications it has for the United States. It analyzes Chinese thinking on what a maritime power is, why Beijing wants to become a maritime power, what shortfalls it believes it must address in order to become a maritime power, and when it believes it will become a maritime power (as it defines the term). The report then explores the component pieces of China's maritime power—its navy, coast guard, maritime militia, merchant marine, and shipbuilding and fishing industries. It also addresses some policy options available to the U.S. government to prepare for—and, if deemed necessary, mitigate—the impact that China's becoming a maritime power would have for U.S. interests.

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Executive Summary

In late 2012 the leaders of the Chinese Communist Party announced that becoming a “maritime power” was essential to achieving national goals. This announcement was the culminating point of over a decade of careful Chinese consideration of, and appreciation for, the importance of the maritime domain to China’s continued development, to China’s security, and to China’s vision of its place in the world.

How does China understand the idea of maritime power?

In the Chinese context, maritime power encompasses more than naval power but appreciates the importance of having a world-class navy. The maritime power equation includes a large and effective coast guard; a world-class merchant marine and fishing fleet; a globally recognized shipbuilding capacity; and an ability to harvest or extract economically important maritime resources, especially fish.

The centrality of “power” and “control” in China’s characterization of maritime power

Many Chinese conceptualizations of “maritime power” include notions of power and control. China will not become a maritime power until it can deal with the challenges in defense of its maritime sovereignty, rights, and interests, and deal with what it terms the threat of containment from the sea.¹

¹ Containment from the sea seems to be a broad characterization of how China’s sees Obama administration’s rebalance strategy in practice: strengthened alliances with U.S. Asian maritime partners, increasing the percentage of USN and USAF forces assigned to the Pacific theater, assigning the newest U.S. military equipment to the Pacific, improving relations with nations that have maritime issues with China, enhancing the maritime capabilities of China’s neighbors, growth in multi-lateral maritime exercises among China’s neighbors, and so on. This also includes American open source discussions of a maritime blockade of China in case of conflict.

China's vision of maritime power leads inevitably to the judgment that it requires strong marine defense forces—a “powerful” navy and an “advanced” maritime law enforcement force.

Why does China want to become a maritime power?

China's strategic circumstances have changed dramatically over the past 20 years. The dramatic growth in China's economic and security interests abroad along with longstanding unresolved sovereignty issues such as unification with Taiwan and gaining complete control of land features in the East and South China Seas held by other countries demands a focus on the maritime domain. Importantly, Xi Jinping has embraced maritime power as an essential element of his “China Dream,” leading to a *Weltanschauung* within the Party and PLA that becoming a “maritime power” is a necessity for China.

Anxiety regarding the security of China's sea lanes

China's leaders worry about the security of its seaborne trade. The prominence given to sea lane protection and the protection of overseas interests and Chinese citizens in both the 2015 defense white paper and *The Science of Military Strategy* makes clear that sea lane (SLOC) security is a major preoccupation for the PLA.

When will China become a maritime power?

Remarks made by senior leaders since 2012 make it clear that the long-term goal is for China to be a leader across all aspects of maritime power; having some of these capabilities means that China has some maritime power but that it is “incomplete.” The research for this paper strongly suggests that China will achieve the goal of being the leading maritime power *in all areas except its navy*, by 2030.

Is becoming a “maritime power” a credible national objective?

China is not embarking on a maritime power quest with the equivalent of a blank sheet of paper. In a few years it will have the world's second most capable navy. China is already a world leader in shipbuilding, and it has the world's largest fishing industry. Its merchant marine ranks either first or second in terms of total number of ships owned by citizens. It already has the world's largest number of coast guard vessels.

The United States inhibits accomplishing the maritime power objective

A significant finding is that from a Chinese perspective U.S. military presence in the Western Pacific impedes Chinese maritime power ambitions. Today China judges that the United States is the only country able to prevent China from achieving its maritime power ambition. To Beijing, the U.S. rebalance strategy exacerbates this problem. For China to satisfy the maritime power objective, it must be able to defend all of China's maritime rights and interests in its near seas in spite of U.S. military presence and alliance commitments. In short, it must be able to *successfully* execute what the latest defense white paper terms "offshore waters defense" (known in the U.S. as A2/AD) for China to be considered a maritime power.

The maritime power vision is global

A wide variety of authoritative sources indicate that maritime power will also have an important global component. The latest Chinese defense white paper indicates that PLA Navy strategy is transitioning from a single-minded focus on "offshore waters defense," to broader global strategic missions that place significant importance on "distant-water defense."

Assessing the elements that constitute China's maritime power

The PLA Navy (PLAN)

When one counts the number and variety of warships that the PLAN is likely to have in commission by around 2020, China will have both the largest navy in the world (by combatant, underway replenishment and submarine ship count) and the second most capable "far seas" navy in the world.

"Far seas" capable warships/CLF/submarines forecast to be in PLAN's inventory around 2020 (discussed in chapter 3) total between 95 and 104 combatants.² If one adds this number to the 175-odd warships/submarines commissioned since 2000

² CLF stands for "combat logistics force" (underway replenishment ships).

that are largely limited to near seas operations³ and likely will still be in active service through 2020, the total PLAN warship/CLF/submarine strength circa 2020 is in the range of 265-273, all of which are homeported in China.⁴

How large will the PLAN become?

We don't know how large the PLAN will become. This is the biggest uncertainty when considering China's maritime power goal, because China has not revealed that number.

The China Coast Guard (CCG)

The China Coast Guard already has the world's largest maritime law enforcement fleet. As of this writing, the Office of Naval Intelligence counts 95 large (out of a total 205) hulls in China's coast guard.⁵ Chinese commentators believe that China cannot be considered a maritime power until it operates a "truly advanced" maritime law enforcement force. The key will be the successful integration of the discrete bureaucratic entities that have been combined to form the coast guard, and much work remains to be done on this score.

³ This number, 175, is the sum of: 9 older DDGs, 11 older FFGs, 25 older conventional submarines, 60 *Houbei* fast attack craft, 29 LSTs, and 41 of the new type 056 corvettes. "Older" here refers to those craft commissioned since 2000 but no longer in production because they have been succeeded by newer, more capable classes.

⁴ The U.S. Navy is projected to have a force structure of around 260 similar classes of ships in 2020. If current plans are carried through, some 60 percent of the total USN, or around 156 warships and submarines, will be assigned to the U.S. Pacific Fleet by 2020. So, while the U.S. number includes many more high-end ships, the total number of combatants the PLAN would have at its disposal for a defensive campaign in East Asia is significant.

⁵ Office of Naval Intelligence, *The PLA Navy: New Capabilities and Missions for the 21st Century*, Washington, DC, p. 18, <http://www.oni.navy.mil/Intelligence-Community/China>, and U.S. Department of Defense, *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2015*, p. 44, http://www.defense.gov/Portals/1/Documents/pubs/2015_China_Military_Power_Report.pdf. For comparison, the Japanese coast guard operates 54 cutters displacing more than 1,000 tons. See the Japan Coast Guard pamphlet available here: <http://www.kaiho.mlit.go.jp/e/pamphlet.pdf>. The USCG currently operates 38 cutters displacing more than 1,000 tons. See the USCG website: <http://www.uscg.mil/datasheet/>.

The maritime militia—the third coercive element of China’s maritime power

One of the most important findings of this project is the heretofore underappreciated role that China’s maritime militia plays, especially in the South China Sea. Often, it is China’s first line of defense in the maritime arena. It has allowed China to harass foreign fishermen and defy other coast guards without obviously implicating the Chinese state.

Shipbuilding and China as a maritime power

China became the world leader in merchant shipbuilding in 2010. For the last several years, global demand has shrunk significantly, and China now faces the reality that it must shed builders and exploit economies of scale by consolidating and creating mega-yards. In short, for China “... to move from a shipbuilding country to shipbuilding power,” it has to focus on quality above quantity.

China’s merchant marine

China’s current merchant fleet is already world class. Beijing’s goal is to be self-sufficient in sea trade. During the past 10 years, the China-owned merchant fleet has more than tripled in size. In response to the Party’s decision for China to become a maritime power, the Ministry of Transport published plans for an even more competitive, efficient, safe, and environmentally friendly Chinese shipping system by 2020.

China’s merchant marine is an important adjunct to the PLA

China’s merchant marine is also becoming more integrated into routine PLA operations, compensating for shortcomings in the PLA’s organic, long-distance sealift capacity. This is likely to increase as more civilian ships are built to national defense specifications and enter into the merchant fleet.

Fishing is an element of China’s maritime power

China is by far the world’s biggest producer of fishery products (live fishing and aquaculture). It has the largest fishing fleet in the world, with close to 700,000 motorized fishing vessels, some 200,000 of which are marine (sea-going) with another 2,460 classified as distant-water (i.e., global, well beyond China’s seas) in

2014.⁶ The fishing industry is now viewed in strategic terms; it has a major role in safeguarding national food security and expanding China's marine economy.

Beijing's views on its maritime power: What are the shortfalls?

When one considers all the aspects of maritime power—navy, coast guard, militia, merchant marine, port infrastructure,⁷ shipbuilding, fishing—it is difficult to escape the conclusion that China already is a maritime power, at least in sheer capacity. No other country in the world can match China's maritime capabilities across the board.

So what is the problem?

Why do China's leaders characterize becoming a maritime power as a future goal, as opposed to asserting that China is a maritime power? Chinese experts think that China has to improve in several areas:

- The China Coast Guard needs to complete the integration of the four separate maritime law enforcement entities into a functionally coherent and professional Chinese coast guard.
- Increased demand for more protein in the Chinese diet means that the fishing industry—in particular, the distant-water fishing (DWF) component—must expand and play a growing role in assuring China's "food security."
- Chinese projections suggest that by 2030 China will surpass Greece and Japan to have the world's largest merchant fleet by DWT⁸ and that its "international

⁶ "Transform Development Mode, Become a Strong Distant-water Fishing Nation," *China Fishery Daily*, 6 April 2015. Online version is available at http://szb.farmer.com.cn/yyb/images/2015-04/06/01/406yy11_Print.pdf.

⁷ China has 6 of world's top 10 ports in terms of total metric tons of cargo (Shanghai, Guangzhou, Qingdao, Tianjin, Ningbo, and Dalian) and of 7 of the world's top 10 ports in terms of container trade, or TEUs (Shanghai, Shenzhen, Hong Kong, Ningbo, Qingdao, Guangzhou, and Tianjin). No other country has more than one. China also has 6 of 10 of the world's most efficient ports (Tianjin, Qingdao, Ningbo, Yantian, Xiamen, and Nansha). UN Conference on Trade and Development (UNCTAD), *Review of Maritime Transport 2015*, http://unctad.org/en/PublicationsLibrary/rmt2015_en.pdf.

⁸ Deadweight tonnage (DWT) is a measure of how much weight a ship is carrying or can safely carry. It is the sum of the weights of cargo, fuel, fresh water, ballast water, provisions, passengers, and crew.

shipping capacity” will double, to account for 15 percent of the world’s shipping volume. China’s goal is that 85 percent of crude oil should be carried by Chinese-controlled ships. China will become the largest tanker owner by owner nationality around 2017-18.

- China’s shipbuilding sector is facing a serious period of contraction; thus, the biggest shortcoming is trying to preserve as much capacity as possible: among other things, thousands of jobs are at stake. Chinese builders are also working to ensure the future health of the industry by building economically competitive complex ships and thereby moving up the value chain.
- China’s most serious impediment to becoming a maritime power is its navy. It wants its navy to be able to control its near seas, deal with the threat of containment, defend its worldwide sea lanes, and look after global interests and millions of Chinese citizens abroad. Chinese assessments quite logically conclude that until its navy can accomplish these missions China will not be considered a maritime power.

When will China become the leading maritime power?

From the perspective of spring 2016, none of these shortcomings appear insurmountable. Past performance suggests that China is likely to achieve all of its maritime power objectives, except perhaps one, sometime between 2020 and 2030.

Shortcomings in the coast guard, maritime militia, and fishing industry are likely to be rectified by around 2025. Chinese experts estimate that the merchant marine objectives will be accomplished by around 2030. China seems determined to move up the value/ship complexity scale in shipbuilding. This is will depend on the success of China’s attempts to create mega-yards to capitalize on economy of scale.

China is forecast to have a larger navy than the United States in five years or so if one simply counts numbers of principal combatants and submarines—virtually all of which will be available in East Asia, facing only a portion of the USN in these waters on a day-to-day basis. China will have a growing quantitative advantage in the Western Pacific while gradually closing the qualitative gap.

Since it is up to China’s leaders to judge when its navy is strong enough for China to be a maritime power, it is difficult to forecast a date. Their criteria for deciding when its navy meets their standards for being a maritime power are likely to revolve around several publicly stated objectives:

- *The first objective is to control waters where China’s “maritime rights and interests” are involved.* This likely means the ability to achieve “sea and air control” over the maritime approaches to China—i.e., to protect mainland China when U.S. aircraft or cruise missile shooters are close enough to attack it, probably somewhere around the second island chain.⁹ “Near-waters defense,” known as A2/AD in the United States, is intended to defeat such an attack. A very important uncertainty is when, if ever, China’s leaders will come to believe that its navy can provide such a defense, *because the United States is actively working to ensure that it cannot.*
- *The second objective is being able to enforce its maritime rights and interests.* If one considers this to be primarily a peacetime problem set, the combination of China’s coast guard and maritime militia, backstopped by over the horizon PLAN warships, is increasingly capable of enforcing Chinese rules and regulations in its territorial seas and claimed EEZ (or within the so called nine-dash line) in the South China Sea.
- *The third objective revolves around the ability to deter or defeat attempts at maritime containment.* Maritime containment is not well defined, but is often used to characterize how China perceives the Obama administration’s rebalance strategy. Collectively, the US policy of strengthened alliances with Asian maritime partners, increasing the percentage of USN and USAF forces assigned to the Pacific theater, assigning the newest US military equipment to the Pacific, improving relations with nations that have maritime issues with China, enhancing the maritime capabilities of China’s neighbors, growth in multi-lateral maritime exercises among China’s neighbors, and so on, suggests a containment strategy. But it also appears to include a belief that the United States would attempt to blockade China in case of conflict.
 - If “maritime containment” is intended to mean a blockade, a war-time activity, the combination of the capabilities required to “control “ its

⁹ The goal of “control” is found in the 2004 PRC defense white paper, from the Information Office of the State Council of the PRC, December 2004, Beijing, <http://english.people.com.cn/whitepaper/defense2004>. Western naval strategists/theorists normally define “sea or air control” as being able to use the sea or air at will for as long as one pleases, to accomplish any assigned military objective, while at the same time denying use to the enemy.

maritime approaches, addressed above, plus the capabilities associated with the “open seas protection” mission addressed in chapter 3, pertain.

- But if deterring maritime containment implies a peacetime activity involving the combination of Chinese conventional and nuclear capabilities and the perception that China’s leaders have the will to act, this deterrent is already in place—and will be enhanced by its newly operational SSBN force.
- Deterring maritime containment may also address the broader political-military objective of making certain that the United States and other leading maritime powers of Asia do not establish a formal defense treaty relationship where all parties are pledged to come to the aid of one another. (This seems highly unlikely because of China’s economic power, geographic propinquity, and strategic nuclear arsenal, and because it has the largest navy in Asia.)

Implications and policy options for the United States

Implications

Whether it is the navy, the merchant marine, or China’s distant-water fishing fleet, the Chinese flag is going to be ubiquitous on the high seas around the world. There may be far more opportunities for USN-PLAN cooperation because the PLAN ships are far removed from Chinese home waters, where sovereignty and maritime claim disputes create a different “maritime ambiance.”

Collectively, a number of factors—the goals for more Chinese-controlled tankers and other merchant ships, the new focus on “open seas protection” (aka, far seas, what the U.S. would term “blue water”) naval capabilities, the bases in the Spratlys, Djibouti, and perhaps Gwadar, Pakistan, and the ambitious infrastructure plans associated with the 21st Century Maritime Silk Road—suggest that China is doing its best to immunize itself against attempts to interrupt its seaborne trade by either peacetime sanctions or wartime blockades.

One implication for Washington of China’s growing “open seas protection” capable ships is that U.S. authorities can no longer assume unencumbered freedom to posture U.S. naval forces off Middle East and East African hotspots if Chinese interests are involved and differ from Washington’s. Both governments could elect to dispatch naval forces to the waters offshore of the country in question.

Once the reality of a large Chinese navy that routinely operates worldwide sinks into world consciousness, the image of a PLAN “global” navy will over time attenuate perceptions of American power, especially in maritime regions where only the USN or its friends have operated freely since the end of the Cold War.

More significantly, the image of a modern global navy combined with China’s leading position in all other aspects of maritime power will make it easy for Beijing to eventually claim it has become the “world’s leading maritime power,” and argue its views regarding the rules, regulations, and laws that govern the maritime domain must be accommodated.

Policy options

Becoming a maritime power falls into the category of China doing what China thinks it should do, and there is little that Washington could (or should) do to deflect China from its goal. The maritime power objective is inextricably linked to Chinese sovereignty concerns, real and perceived; its maritime rights and interests broadly and elastically defined; its economic development, jobs, and improved technical expertise; the centrality of fish to its food security goals; and its perception of the attributes that a global power should possess. Furthermore, it is important because the president and general secretary of the CCP has said so.

There is one aspect of Chinese maritime power that U.S. government officials should press their Chinese counterparts to address: just how large will the PLA Navy become? The lack of Chinese transparency on this fundamental fact is understandable only if Beijing worries that the number is large enough to be frightening.

Washington does have considerable leverage on the navy portion of China’s goal because of the direct relationship between the maritime power objective and its impact on America’s ability to access the Western Pacific if alliance partners or Taiwan face an attack by China. U.S. security policy should continue to focus on and resource appropriately the capabilities necessary to achieve access, or what is now known as Joint Concept for Access and Maneuver in the Global Commons (JAM-GC).¹⁰

Conclusion

¹⁰ Sam LaGrone, “Pentagon Drops Air Sea Battle Name, Concept Lives On,” *USNI News*, January 20, 2015, <https://news.usni.org/2015/01/20/pentagon-drops-air-sea-battle-name-concept-lives>.

The only thing likely to cause China to reconsider its objective of becoming the leading maritime power is an economic dislocation serious enough to raise questions associated with “how much is enough?” This could cause a major reprioritization of resources away from several maritime endeavors such as the navy, merchant marine, and shipbuilding.

Thus, beyond grasping the magnitude and appreciating the audacity of China’s ambition to turn a country with a historic continental strategic tradition into the world’s leading maritime power, the most practical course for the United States is to ensure that in the eyes of the world it does not lose the competition over access to East Asia because without assured access the security aspects of America’s traditional strategy in East Asia cannot be executed.

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Introduction

Michael McDevitt

In November 2012, then president Hu Jintao’s work report to the Chinese Communist Party’s 18th Party Congress was a defining moment in China’s maritime history. Hu declared that China’s objective is to be a *haiyang qiangguo*—that is, a strong or great maritime power. China “should enhance our capacity for exploiting marine resources, develop the marine economy, protect the marine ecological environment, resolutely safeguard China’s maritime rights and interests, and *build China into a strong maritime power*” (emphasis added).¹

Hu’s report also called for building a military (the PLA) that would be “commensurate with China’s international standing.” These two objectives were repeated in the 2012 PRC defense white paper, which was not released until April 2013, after Xi Jinping had assumed Party and national leadership.²

According to the white paper:

China is a major maritime as well as land country. The seas and oceans provide immense space and abundant resources for China’s sustainable development, and thus are of vital importance to the people’s wellbeing and China’s future. It is an essential national development strategy to exploit, utilize and protect the seas and oceans, and build China into *a maritime power*. It is an important

¹ Full text of Hu Jintao’s Report at the 18th Party Congress,” Xinhua, 17 November 2012, http://news.xinhuanet.com/english/special/18cpcnc/2012-11/17/c_131981259.htm.

² Beyond the issues of building China into a maritime power, the 2012 white paper is also important because it foreshadows the 2015 white paper by defining specific “far seas” operations for the PLA Navy: humanitarian missions, escort operations, evacuation of Chinese citizens abroad in periods of crisis or natural disaster, and joint exercises with foreign partners. Finally, the white paper provides justification for the PLA’s deployments for “diversified missions” that support China’s international standing and its security and developmental interests. See Daniel Harnett, *China’s 2012 Defense White Paper: Panel Discussion Report*, CNA China Studies, CCP-2013-U-005876 Final, September 2013, http://www.cna.org/sites/default/files/research/ChinaStudies_WhitePaper.pdf.

duty for the PLA to resolutely safeguard China's maritime rights and interests. (Emphasis added.)³

The goal of becoming a maritime power raises a number of questions related to what this aspirational goal actually means, and what the implications are for the United States as China pursues this goal. This report will explore this issue, starting with an assessment of what China's leaders mean by "maritime power."

What is a maritime power?

As Professor Geoffrey Till has written in his well-regarded work *Sea Power*, "maritime power" and "sea power" are often vaguely defined.⁴ Ever since Admiral Alfred Thayer Mahan introduced the term "sea power" into the global security lexicon,⁵ the precise definitions of "sea power" and of "maritime power" have been unclear, which often results in their being used interchangeably.

Today, "maritime power" is more commonly used in current Western discourse as an inherently broad concept, embracing all uses of the sea, both civil and military. In its widest sense, it can be defined as "military, political, and economic power or influence exerted through an ability to use the sea." The maritime power of a state reflects sea-based military capabilities, such as ships and submarines, as well as a range of military land-based assets and space-based systems that may or may not be operated by the navy. It also includes civilian capabilities such as a coast guard, port infrastructure, merchant shipping, fishing, and shipbuilding.⁶

A good example of this broad definition of maritime power was delivered during a 2003 U.S. Naval War College conference dedicated to the topic of "maritime power,"

³See State Council Information Office, *The Diversified Employment of China's Armed Forces*, Beijing, April 2013. The official English translation is available at: http://news.xinhuanet.com/english/china/2013-04/16/c_132312681.htm. Hereafter, this will be referred to as China's 2012 defense white paper. Also see Liu Cigui, "Striving to Realize the Historical Leap From Being a Great Maritime Country to Being a Great Maritime Power," *Jingji Ribao Online*, November 2012.

⁴Geoffrey Till, *Seapower: A Guide for the Twenty-first Century*, 3rd edition (New York: Routledge, 2013).

⁵Even Mahan, who coined the term "sea power," did not define it, but, in his seminal work, it was clear that he equated sea power with success in major naval battles. See Alfred Thayer Mahan, *The Influence of Sea Power Upon History 1660-1783* (London: Methuen, 1965).

⁶The definition is drawn from a first-rate work by Dr. Ian Speller, *Understanding Naval Warfare* (New York: Routledge, 2014), p. 6.

when the then commandant of the U.S. Coast Guard said that 21st-century maritime power speaks to a nation's needs beyond purely military capabilities. It includes the need to preserve maritime resources, ensure safe transit and passage of cargoes and peoples on its waters, protect its maritime borders from intrusion, uphold its maritime sovereignty, rescue the distressed that ply the oceans in ships, and prevent misuse of the oceans.⁷

In sum, the difference between these two concepts is that “sea power” places more emphasis on the naval dimension, whereas “maritime power” places equal emphasis on the naval and civil elements of a nation's maritime capability. As will be seen, our research indicates that this is what presidents Hu and Xi have meant when they have called for China to become a “maritime power.”

What are China's “maritime rights and interests”?⁸

A phrase that appears over and over in this report is China's “maritime rights and interests.” Since the phrase first came into use in 1992 with the passage of the PRC “Territorial Sea and Contiguous Zone Law,” Chinese leaders have been talking about the importance of defending China's “maritime rights and interests.”⁹ The term is used to link key functional and ideological maritime tasks with domestic legal authorities that in turn guide practical efforts to “build” China's maritime power.

Nearly every public recital in China about maritime power invokes China's maritime rights and interests. As indicated above, former president Hu Jintao officially linked the concepts when he enshrined maritime power as a Chinese Communist Party (CCP) priority at the 18th National Party Congress. President Xi Jinping has reiterated and intensified his predecessor's call for building maritime power and, to that end,

⁷Admiral Thomas Collins, Commandant, U.S. Coast Guard, address before the International Seapower Symposium, October 27, 2003, <http://www.uscg.mil/history//CCG/collins/docs/ADISSNWClunch2003.pdf>.

⁸This explanation is drawn from an excellent paper on this topic by Isaac Kardon, written specifically for this project. A complete copy of the paper is found at https://www.cna.org/cna_files/pdf/China-Maritime-Rights.pdf. Isaac B. Kardon is a Ph.D. candidate in government at Cornell University and a visiting scholar at NYU Law's U.S.-Asia Law Institute in 2015-2016.

⁹ Thomas Bickford, Fred Vellucci, Jr., and Heidi Holz, *China as a Maritime Challenge: The Strategic Dimension*, CNA Research Memorandum D0023549.A3/1 Rev, October 2010.

has mobilized the state to take active “countermeasures to safeguard our nation’s maritime rights and interests.”¹⁰

Essentially, China’s promotion of its maritime rights and interests is an important facet of its efforts to economically develop, legally regulate, and effectively control ocean areas under its claimed jurisdiction. Pursuing these goals entails efforts to “perfect” China’s maritime legal, regulatory, and administrative framework, which are then enacted in the form of national legislation, administrative regulation, and departmental rules,¹¹ that in turn become the source and justification for various maritime legal laws and assertions of sovereignty, jurisdiction, and physical control.

The ability to protect China’s maritime rights is considered essential to becoming a maritime power. In fall 2013, one official from the State Oceanic Administration (SOA) wrote, “The most important prerequisite for the building of a maritime power is to...*protect the nation’s maritime rights and interests from being violated*. If our nations core maritime interests and the basic maritime rights and interests cannot be effectively protected, there is no way to talk about building a maritime power.”¹² Chinese leaders treat the protection of maritime rights and interests as a *necessary condition* for becoming a maritime power. Chinese officials, experts, media, and semi-informed citizens routinely cite maritime rights and interests as the key component of maritime power.

How this report was assembled

This report was made possible thanks to a grant from the Smith Richardson Foundation, which supported the research necessary to conduct a detailed

¹⁰ “Xi Jinping at the 8th Study Session of the Central Committee Political Bureau emphasized unceasingly making new achievements towards cultivating greater maritime consciousness and strategic management of the seas, and pushing through the construction of maritime power,” *Renmin Ribao* (August 1, 2013), http://paper.people.com.cn/rmrb/html/2013-08/01/nw.D110000renmrb_20130801_2-01.htm.

¹¹ These are listed in order of their formal authority. National legislation is below only the constitution in the hierarchy, followed by administrative regulations for implementing legislation formulated by the State Council, and then rules promulgated by departments. Various other legal instruments can be created at local levels within the legal authorities granted at the national level. See Guifang Xue, *China and International Fisheries Law and Policy* (Leiden: Martinus Nijhoff Publishers, 2005), p. 79, for a helpful chart and primer on the Chinese legal system, especially as it pertains to maritime laws and regulations.

¹² Liu Kefu, “以三重保护力度推进海洋强国建设” [Push Forward the Construction of Maritime Power with Threefold Efforts], *Zhongguo Haiyangbao*, 17 September 2013: 1.

investigation into China's goal of becoming a maritime power. The first and most important aspect of the project was assembling a team of credible experts to look into the various facets of maritime power and commissioning them to produce comprehensive papers on their respective topics. The papers upon which each chapter is drawn from were presented at a conference held at CNA in 2015, and are posted on the CNA website <https://www.cna.org/news/events/China-Maritime-Power-Conference>. This report is based on these papers, each of which has been abridged by the project director in order to keep the final size of the report to a manageable length.

The project director, CNA Senior Fellow Michael McDevitt, contributed report chapters on the PLA Navy's growing far seas capabilities and on China's shipbuilding industry, as well as the findings and recommendations. His CNA colleagues Dr. Thomas Bickford and Mr. Alan Burns made essential contributions on the China's maritime power goal and the PLA Navy. A former CNA colleague, Mr. Dennis Blasko covered China's merchant marine. Mr. Isaac Kardon, who recently joined the talented team at the U.S. Naval War College's China Maritime Institute (CMSI), analyzed the concept of China's maritime rights and interests. Also from CMSI, Mr. Ryan Martinson wrote a needed exploration of the China Coast Guard. Another CMSI contribution was the paper by Dr. Andrew Erickson and Mr. Conor Kennedy on China's maritime militia, a heretofore underappreciated component of Chinese maritime power in its near seas. Finally, China's fishing industry was expertly addressed by Mr. Zhang Hongzhou, an associate research fellow with the China Programme at the S. Rajaratnam School of International Studies (RSIS), Nanyang Technological University, Singapore.

What this report covers

This report explores the implications that the Chinese leadership's decision to become a "maritime power" will have for the United States. It takes three main steps: (1) it determines how China understands maritime power; (2) it parses the notion of being a "maritime power" into its component pieces and examine each piece in detail, including a judgment of China's standing today relative to other countries as well as its ambitions for the future; and (3) it presents findings and reach judgments on what this ambition means for the United States and its sea-faring allies and friends. What will Chinese maritime power, as China itself defines it, mean for the United States, and what policy options are available to the U.S. government (USG) to prepare for and, if deemed necessary, mitigate the impact on U.S. interests of a China that has become a recognized "maritime power"?

Because China's leadership is not claiming that China is a maritime power today, and has established maritime power as an aspirational goal, an important aspect of the

project will involve establishing what China thinks it requires in order to achieve this goal. In several aspects of maritime power, such as its fishing fleet, merchant marine, and shipbuilding base, our research indicates that China is already world class.

Chapter 1: China and Maritime Power: Meanings, Motivations, and Strategy¹

Thomas Bickford

Introduction: What does being a maritime power mean in China?

The seas became an important interest to China in 1979, when it adopted the policy of “opening up”; however, it wasn’t until the 18th Party Congress in 2012 that maritime issues were officially identified as a national priority for the Communist Party, the state, and the country. The Chinese Communist Party leadership now perceives building maritime power as essential to achieving its national goals. The objective of becoming a maritime power is not a “bolt out of the blue” aspiration; rather, in terms of Party policy, it is the culminating point of over a decade of careful Chinese consideration of, and appreciation for, the importance of the maritime domain to China’s continued development, to China’s security, and to China’s vision of its place in the world. For example, the 16th Party Congress, in 2002, called for maritime development, and the 17th Party Congress, in 2007, called for the development of the maritime economy.²

Chinese leaders, military and civilian officials, and security analysts have consistently viewed maritime power as a broad concept that encompasses a wide range of military and civilian capabilities. In the Chinese context, maritime power

¹ This is an abridgment of a paper written by Dr. Thomas Bickford for this project. Dr. Bickford is a senior research scientist in the China Studies Division of CNA. The paper in its entirety can be found at www.cna.org/cna_files/pdf/Haiyang-Qianguo.pdf.

² Li Fusheng et al., “Research on Equipment Support and Preparation for Large Combat Ship Formations,” *Journal of the Equipment Academy* 25 (1) (February 2014): 28-31.

encompasses more than naval power; in fact, Chinese interpretations are virtually identical to Western definitions. They emphasize that the foundation of maritime power rests on a strong navy but add that other factors are also very important in the maritime power equation. These include a large and effective coast guard; a world-class merchant marine and fishing fleet; a globally recognized shipbuilding capacity; and an ability to extract economically important maritime resources.³

In addition to Hu Jintao's report to the 18th Party Congress cited in the introduction to this report, here are some representative open-source discussions of maritime power from authoritative sources:

- A Xinhua article published a few days after the 18th Party Congress stated that a maritime power was a country that “had comprehensive strength in maritime exploitation, maritime economic development, marine environmental protection, and marine control.”⁴
- Similarly, an article in *Qiushi*, the Chinese Communist Party's theoretical journal, stated that a maritime power was a country that could “exert its great comprehensive power to develop, utilize, protect, manage, and control oceans.” The article went on to say that China was not yet a maritime power—not only because of its limited ability to develop the oceans, but also because of the challenges it faces in defense of its maritime sovereignty, rights, and interests, and because of the threat of containment from the sea.⁵
- At a Politburo study session in July 2013, Xi Jinping noted that building maritime power meant developing the marine economy, extracting maritime resources in a manner that protects the marine environment, advancing maritime science and technology, and safeguarding maritime rights and interests. Xi Jinping pointed out that China is at once a continental power and a maritime power (*haiyang daquo*) and that it possesses broad maritime

³ Beyond the authoritative statements cited below, the justification for this finding is found in the succeeding chapters in this report where Chinese officials are cited in linking all the various Chinese maritime constituencies to the maritime power objective.

⁴ Cao Kai, “China Voice: Building China Into a Maritime Power Essential for Future Development,” Xinhua, doi: Nov. 14, 2012.

⁵ The author of the article is the director of China's National Maritime Information and Data Center. Xu Sheng, “Follow the Path of Maritime Power With Chinese Characteristics,” *Qiushi Online*, doi: Nov. 2013, <http://www.qstheory.cn/>.

strategic interest. These achievements, he stated, have laid a solid foundation for building a strong maritime power (*haiyang qiangguo*).⁶

- Chen Mingyi, a member of the Senior Advisory Committee for National Marine Programs Development, offered a more elaborate version of this concept, noting that a leading maritime power is one with advanced maritime industries, sustainable development of the marine economy, marine ecology, and strong marine defense forces—a “powerful” navy and an “advanced” maritime law enforcement force—to protect maritime rights and interests and maritime security. He also stated that a leading maritime power is one that plays a major role in international maritime affairs.⁷
- Less authoritative but more detailed—and perhaps more representative of the discussion at lower levels on how to implement maritime power—is a definition given by a professor at the Ocean University of China: maritime power is “having a developed maritime economy, advanced maritime technology, a great naval strength, comprehensive maritime laws, healthy marine ecosystems, a maritime resource environment for sustainable development, a high level of awareness of the importance of the oceans, and maritime cultural soft power.”⁸
- An academic from Beijing University’s Center for Strategic Studies noted that becoming a maritime power means development of the maritime economy, resource extraction, protection of the environment, and protection of maritime rights and interests. He went on to state that the objectives for maritime power should be: to effectively manage, control, and deter in local waters; to be a powerful influence in regional and global affairs; and to be a global maritime economic power.⁹

⁶ “Xi Jinping Stresses the Need To Show Greater Care About the Ocean, Understand More About the Ocean and Make Strategic Plans for the Use of the Ocean, Push Forward the Building of a Maritime Power and Continuously Make New Achievements at the Eighth Collective Study Session of the CPC Central Committee Political Bureau,” Xinhua Online, July 31, 2013.

⁷ Chen Mingyi, “China Must be Built into a Maritime Power by 2050,” *Zhongguo Haiyang Bao*, January 13, 2014.

⁸ Cao Wenzhen, “Promoting Maritime Awareness, Building National Maritime Strength—Maritime Power Strategies and the Chinese Dream,” *Zhongguo Haiyang Bao Online*, Jul. 21, 2014. The author is listed as director of Ocean University’s International Issues Research Institute, and the newspaper is the official newspaper of China’s State Oceanic Administration.

⁹ Hu Bo, “Three Strategic Objectives on the Road to Maritime power,” *Shijie Zhishi*, May 2013: 28-29.

Imbedded in these examples, in addition to the focus on China's economic interests, is the emphasis placed on "control," "power," and "maritime rights and interests" as key aspects of maritime power. As this report will show, this emphasis reflects the view that to be considered a maritime power, a country must have strong navy.

Why does China want to be a maritime power?

The motivations behind the call for China to become a maritime power are based on China's strategic circumstances, which have changed dramatically over the past 20 years. Since the 1990s, China's economic and security interests in areas beyond its immediate coastal and offshore area have expanded greatly. China's overall economic power, the importance of its interests abroad and, more recently, Xi Jinping's vision of the China Dream have blended to form a *Weltanschauung* that becoming a "maritime power" is a necessity for China. Commentary by Chinese leaders and national-level documents characterizes the goal of becoming a maritime power as essential to China's national development strategy, to the people's well-being, to the safeguarding of national sovereignty, and to the rejuvenation of the Chinese nation. Specifically, research for this report has identified these factors in the quest for maritime power:

- China's national interests in the maritime domain are shaped by the Chinese Communist Party's (CCP's) desire to promote and defend what it defines as its "core" national security interests. According to the Chinese Academy of Military Sciences, "Today and for a long time to come, our country's national interests are expanding mainly in the sea, national security is threatened mainly from the sea, the focal point of military struggle is mainly in the sea..."¹⁰
- A key portion of these interests are what the China's leaders refer to as China's "maritime rights and interests." The protection of these rights and interests requires a strong and capable Chinese coast guard.¹¹

¹⁰*The Science of Military Strategy*, 2013 (*Zhanlue xue 2013 nianban*), (Beijing: Academy of Military Science Press, 2013), p. 209.

¹¹Chapter 4 in this report addresses the China Coast Guard in more detail. See also Mr. Ryan Martinson's paper on the China Coast Guard prepared for a CNA-sponsored conference on this subject, at https://www.cna.org/cna_files/pdf/Creation-China-Coast-Guard.pdf.

- Economic exploitation of the seas is considered an important element in China's overall vision. Resource scarcity is often cited as a rationale, with the accompanying vision that fish and energy resources from the maritime or "blue" economy can help alleviate scarcity and are necessary for China's continued development.¹² According to Liu Cigui, then the director of China's State Oceanic Administration, the total value of all these activities amounted to roughly 10 percent of China's GDP in 2015.¹³ This includes all industries that are involved in the exploitation of marine resources or use coastal areas and the open seas, and involves 11 industrial sectors. It includes activities as diverse as coastal and ocean transport, offshore oil and gas, fishing, wind tidal and solar power from the sea, pharmaceuticals derived from marine animal and plant products, and even maritime tourism.¹⁴
- China wants "reunification of the motherland." Taiwan, as an island, is an inherently "maritime" military problem. China also has unresolved maritime boundary issues and contested territorial claims in the Yellow, East China, and South China Seas. The South China Sea disputes are also important because of both resources and national security. Further, besides the territorial issues in the East China Sea (Taiwan and the Senkaku/Diaoyu Islands), six of China's 10 largest ports can only be reached by sailing via that sea.
- China has concluded that its maritime interests in overseas energy and non-energy resources, markets, and shipping routes have become essential to its economic growth, and, by extension, its political stability. The recently declared goal of creating a "21st Century Maritime Silk Road" that connects China to Southeast and South Asia, East Africa, and the Mediterranean littoral is the latest manifestation of the centrality of global maritime connections to China's continued economic success.¹⁵ Most Chinese trade travels by ship; the figure most commonly used by Chinese officials is 90 percent.¹⁶

¹²This is sometimes referred to as China's "blue economy." See Kathleen Walsh, ed., *Exploring the Frontiers of U.S.-China Strategic Cooperation: Roles and Responsibilities Beyond the Asia-Pacific Region* (Washington, D.C., Center for American Progress, November 2014); and Jia Shaowen, Lin Dianxiong, and Huo Liping (2012), "Remote Technical Support System for Equipment maintenance," *Ordnance Industry Automation* (2012): 21-23.

¹³Liu Cigui, "Striving to Realize the Historical Leap From Being a Great Maritime Country to Being a Great Maritime Power," *Jingji Ribao Online*, November 2012.

¹⁴State Oceanic Administration, *China's Ocean Development Report, 2009*, and State Oceanic Administration, *China's Ocean Development Report, 2014* (Beijing: Haiqiao Chubanshe).

¹⁵ Xi Jinping, "Work Together to Build a 21st Century Maritime Silk Road," "Promote the Silk Road Spirit, Strengthen China-Arab Cooperation," and "New Approach for Asian Security Cooperation," in *The Governance of China* (Beijing: Foreign Languages Press, 2014). See also the

- Politically, one of Beijing's most challenging maritime issues is how to protect the burgeoning communities of Chinese expatriate workers who now live overseas in often-unstable countries. According to Foreign Minister Yang Yi, some 30,000 Chinese enterprises are overseas employing millions of Chinese workers. Four years ago, estimates were that 5 million citizens were living and working abroad. More recently, Premier Li Keqiang said, "The job of protecting overseas citizens is a serious one" and "The number of outbound Chinese is expected to exceed 100 million this year (2014)."¹⁷ China has already had to evacuate its citizens from Libya, in 2011, and Yemen, in 2015.¹⁸ The PLA Navy has been identified as having a central role in addressing this problem.¹⁹
- China perceives that its "far seas" maritime interests are increasingly challenged or vulnerable, and that it is lagging behind other countries in pursuing its overseas interests. These vulnerabilities include non-traditional security threats as well as potential threats from other maritime powers that could threaten these interests and the sea lanes that connect them to China.

website of the Asian Infrastructure Investment Bank, www.aiib.org; and Yin Pumin, "A Second Wind for an Ancient Route," *Beijing Review*, Cover Story Series, no. 6, February 5, 2015, http://www.bjreview.com/special/2015-02/02/content_667599.htm.

¹⁶ Xu Sheng, "Follow the Path of Maritime Power With Chinese Characteristics"; Luo Zheng, "Maritime Power Inevitable Choice for Achieving China Dream," *People's Liberation Army Daily*, March 9, 2013.

¹⁷ Dong Zhaohui, "China's logistic hub in Djibouti to stabilize region, protect interests," *Global Times*, March 15, 2016, http://english.chinamil.com.cn/news-channels/china-military-news/2016-03/15/content_6961515.htm; Zhao Yinan, "Li vows to protect rights of Chinese working abroad," *China Daily*, May 5, 2014, http://www.chinadaily.com.cn/world/2014livisitafrica/2014-05/10/content_17497900.htm.

¹⁸ For an extended treatment on the issue of protecting Chinese citizens and assets abroad, see Jonas Parello-Plesner and Mathieu Duchatel, *China's Strong Arm: Protecting Citizens and Assets Abroad*, The Adelphi Series, International Institute for Strategic Studies (Routledge, May 2015). The Yemen evacuation is mentioned on page 9. The Chinese themselves understood that this reflected a significant growth in China's comprehensive national power. See "Chinese naval vessels evacuate hundreds from war torn Yemen," Xinhua, April 8, 2015, news.xinhuanet.com/english/2015-04/08/c_134134406.htm.

¹⁹ "With the growth of China's national interests...the security of overseas interests concerning energy and resources, strategic sea lines of communication (SLOCs), as well as institutions, personnel and assets abroad, has become an imminent issue." The State Council Information Office of the People's Republic of China, *China's Military Strategy*, May 2015, <http://eng.mod.gov.cn/Database/WhitePapers/index.htm>, p. 3.

- China notes the importance of shipbuilding as a strategic industry that provides hundreds of thousands of jobs, economic and technical development, and a degree of self-sufficiency needed during economic sanctions.²⁰
- Finally, there is evidence to suggest that one reason China is pursuing maritime power is a desire for *status*. There appears to be a widespread impression among many elites that historically major powers have been maritime powers. Chinese writers note that the Netherlands, Spain, and Portugal were major powers in the past due to their maritime capabilities. Later powers—Britain, the United States, Japan, and, for a short period, Germany and the Soviet Union—also depended on maritime power.²¹ While it is important to not over-stress this element, there is clearly a maritime element to Chinese perceptions of what it means to be a world power and an actor of consequence on the global stage.

China lacks a published maritime strategy that could provide a clear explanation of exactly where maritime power fits into China's overall objectives. However, a close review of Xi Jinping's speeches does offer some insights into the current thinking of China's leadership.

One central objective of Chinese leaders from Deng Xiaoping to Xi has been the importance of building China into a prosperous society. For Xi, this means economic, social, cultural, and ecological development on the basis of economic growth.²² Xi further states that making "the people prosperous and the country strong" is the very purpose of the Party.²³ It is central to the Party's national strategy and its own survival. According to Xi, the 18th Party Congress addressed the need to respond to issues in China's development and speed up the transformation of China's economy.²⁴

²⁰ See chapter 6 for a discussion of China's shipbuilding industry.

²¹Peng Kehui, "Discussing the Historical Evolution of New China's Maritime Strategy" (*Luelun xin zhongguo haiyang zhanlue de lishi yanjin*), *Social Sciences Review (Shehui Kexue Luntun)*, no. 10 (2012); Xu Sheng, "Follow the Path of Maritime Power with Chinese Characteristics," *Seeking Truth (qiushi)*, November 1, 2013. See also Andrew S. Erickson and Lyle J. Goldstein, "Chinese Perspectives on Maritime Transformation" and "China Studies the Rise of Great Powers," in *China Goes to Sea: Maritime Transformation in Comparative Historical Perspective*, eds. Andrew S. Erickson, Lyle J. Goldstein, and Carnes Lord (Annapolis, MD: Naval Institute Press, 2009), pp. xiii-xxxvi, 401-25.

²⁷Xi Jinping, "Study, Disseminate and Implement the Guiding Principles of the 18th CPC National Congress," *The Governance of China* (Beijing: Foreign Languages Press, 2014).

²³ Ibid.

²⁴ Ibid.

Xi has clearly linked the call to make China a maritime power with the China Dream, stating that building China into a maritime power “is of great and far-reaching significance for promoting sustained and healthy economic development, safeguarding national sovereignty, security and development interests, realizing the goal of completing the building of a well-off society, and subsequently realizing the great rejuvenation of the Chinese nation.” In short, commentaries by Xi and other Chinese leaders and national-level documents characterize the goal of becoming a maritime power as essential to China’s national development strategy.²⁵

Maritime power and national strategy

The decision to build maritime power, reflected in the 18th Party Congress report, indicates a further evolution in how Chinese leaders think about China as a major power. China is no longer just a continental power or—as then general secretary Jiang Zemin said in 1995—both a continental and a *coastal* power.²⁶ That vision has grown. Now, according to both Hu Jintao and, subsequently, Xi, China is to be both a continental and a strong maritime power. That is, China will have power commensurate with its status as one of the world’s leading powers.²⁷

Four years after Hu’s departing exhortations, it is clear that the emphasis on maritime power was not simply one among a long list of aspirational national

²⁵*The Diversified Employment of China's Armed Forces*, 2013; *China's Military Strategy*; “Xi Jinping Stresses the Need To Show Greater Care About the Ocean, Understand More About the Ocean and Make Strategic Plans for the Use of the Ocean, Push Forward the Building of a Maritime Power and Continuously Make New Achievements at the Eighth Collective Study Session of the CPC Central Committee Political Bureau,” Xinhua, July 31, 2013; Liu Cigui, “Striving to Realize the Historical Leap From Being a Great Maritime Country to Being a Great Maritime Power,” *Jingji Ribao Online*, November 2012.

²⁶As cited in *State Oceanic Administration, China's Ocean Development Report 2009 (Zhongguo haiyang fazhan baogao 2009)*. Beijing: Ocean Press, 2009.

²⁷State Council Information Office, *The Diversified Employment of China's Armed Forces*, Beijing, April 2013. The official English translation is available at: http://news.xinhuanet.com/english/china/2013-04/16/c_132312681.htm; Cao Zhi, Li Xuanlinag, and Wang Shibin, “At CMC Reform Work Meeting, Xi Jinping Stresses: Comprehensively Implement Reform and Military Strengthening Strategy, Resolutely Take Path to Strong Military With Chinese Characteristics,” Xinhua Domestic Service, November 26, 2015. The idea of power commensurate with China’s status first surfaced in Hu Jintao’s language in his 18th Party Congress Work Report: “Building strong national defense and powerful armed forces that are commensurate with China’s international standing and meet the needs of its security and development interests is a strategic task of China’s modernization drive...” See “Full Text of Hu Jintao’s Report at the 18th Party Congress,” Xinhua, 17 November 2012, http://news.xinhuanet.com/english/special/18cpcnc/2012-11/17/c_131981259.htm.

objectives. Beijing is very serious about this objective—or least about one important aspect of maritime power, defense of its maritime interests.

In addition to calling for China to become a maritime power, the 18th Party Congress also called for it to build military forces commensurate with China’s international standing. Xi has stated that national security should be the Party’s top priority. According to Xi, national security is a holistic concept that includes both traditional and non-traditional, and integrates elements of political, economic, military, scientific and technological, cultural, and social security.²⁸

For Xi, development and security are closely tied. Development provides the base for creating strong military capabilities, and a strong military is needed to protect development.²⁹ Both are needed for what Xi has said is the “dream of the Chinese people”: to see a strong and prosperous China, i.e., “the great rejuvenation of the Chinese nation.”³⁰

In the latest (2015) Chinese defense white paper, *China’s Military Strategy*, it is striking how much emphasis is placed on maritime issues.³¹ The following are excerpts from the white paper that directly relate to the national objective of becoming a maritime power and the corresponding expansion of the PLAN’s mission set:³²

With the growth of China’s national interests...the security of overseas interests concerning energy and resources, strategic sea lines of communication (SLOCs), as well as institutions, personnel and assets abroad, has become an imminent issue. ...

China’s armed forces mainly shoulder the following strategic tasks [all of which have a maritime component]:

- To strengthen efforts in operations against infiltration, separatism and terrorism so as to maintain China’s political security and social stability; and

²⁸Xi Jinping, “A Holistic View of National Security,” *The Governance of China* (Beijing: Foreign Languages Press, 2014), pp. 221-222.

²⁹Ibid.

³⁰Xi Jinping, “Achieving Rejuvenation Is the Dream of the Chinese People,” *The Governance of China* (Beijing, Foreign Languages Press), pp. 37-40.

³¹*China’s Military Strategy*.

³²Ibid., pp. 3, 5, 8, 9.

— To perform such tasks as emergency rescue and disaster relief, rights and interests protection, guard duties, and support for national economic and social development....

In line with the strategic requirement of offshore waters defense and open seas protection, the PLA Navy (PLAN) will gradually shift its focus from “offshore waters defense” to the combination of “offshore waters defense” with “open seas protection,” and build a combined, multi-functional and efficient marine combat force structure. The PLAN will enhance its capabilities for strategic deterrence and counterattack, maritime maneuvers, joint operations at sea, comprehensive defense and comprehensive support.

The seas and oceans bear on the enduring peace, lasting stability and sustainable development of China. The traditional mentality that land outweighs sea must be abandoned, and great importance has to be attached to managing the seas and oceans and protecting maritime rights and interests.

It is necessary for China to develop a modern maritime military force structure commensurate with its national security and development interests, safeguard its national sovereignty and maritime rights and interests, protect the security of strategic SLOCs and overseas interests, and participate in international maritime cooperation, so as to provide strategic support for building itself into a maritime power.

Maritime power and national security

The 2013 edition of *The Science of Military Strategy*, written by the PLA’s Academy of Military Science, which is the think tank of the Central Military Commission, directly addressed the issue of China’s security in the maritime domain:

The danger of war in the maritime, air, space, and/or cyber domains is escalating. The threat of war in the east is more serious than the threat of war in the west, the threat of war from the sea exceeds that of the threat of war from the land...the probability of military [use for] rights protection abroad, and even limited operational actions is increasing. The most serious threat of war is from a formidable enemy to initiate a war with our country through a surprise attack with [the] purpose of destroying our country’s ability to wage

war....The most likely threat of war is limited military conflicts from the maritime direction.³³

The Science of Military Strategy then goes on to outline four scenarios that China may face.³⁴ All four are maritime in nature:

- A large-scale, high-intensity defensive war involving “hegemonic” countries that seek to stop China’s “peaceful rise.” Such a conflict is considered to have a low probability of occurring but to be very dangerous. This is likely a reference to a potential conflict with the United States. The need “to contain, prevent, and resist possible attacks from the maritime direction, especially large-scale, high-intensity intermediate- and long-range precision strikes, to ensure the security of the homeland.”
- A large-scale, high-intensity “anti-secession” conflict over Taiwan as a result of a move toward Taiwanese independence.
- A medium- to small-scale conflict between opponents along China’s periphery. Examples given of maritime versions of this type of conflict include armed conflict over islands, maritime boundary disputes, and “large-scale plundering” of offshore oil and gas. (These are clearly referring to current disputes in the East China and South China Seas.)
- Small-scale, low-intensity conflicts. Maritime examples provided include protecting strategic passageways, securing the safety of Chinese expatriates, and protecting Chinese interests overseas.

It is not surprising that the Chinese see the maritime domain as the probable greatest source of external security threats, in addition to the direct threats of combat spelled out above. Other security-related issues that China has with regard to the oceans include:

- Beyond sovereignty questions, other territorial and boundary disputes with its neighbors along its maritime periphery. China has unresolved maritime boundary disputes with North Korea, South Korea, Japan, the Philippines, Vietnam, Brunei, Malaysia, and Indonesia.³⁵

³³*Science of Military Strategy*, 2013, pp. 100, 210.

³⁴*Ibid.*, pp. 99-100.

³⁵State Oceanic Administration, *China's Ocean Development Report*, 2014.

- The growing importance of China's maritime economy. This means that the PLA and maritime law enforcement are needed to protect China's access to offshore resources, especially in disputed areas. Ensuring Chinese jurisdiction over its continental shelf and Exclusive Economic Zone (EEZ), and protecting China's maritime rights and interests constitute an important requirement. As China's capabilities to access and utilize maritime resources grow, access to resources in other ocean areas and the need to be able to protect that access will likely increase the need for either the China Coast Guard or PLA Navy to be able to respond to problems.
- China's leaders worry about the security of its seaborne trade. The 2013 edition of *The Science of Military Strategy* notes that there are more than 30 key sea lanes of communication (SLOCs) linking China to over 1,200 ports in 150 countries and that these SLOCs are vital "lifelines" for the China's economy and social development. The prominence given to SLOC protection and the protection of overseas interests and Chinese citizens in both the 2015 defense white paper and *The Science of Military Strategy* leaves little doubt that SLOC security will continue to be a major preoccupation for the PLA—and potentially for the China Coast Guard as well, because of China's global fishing interests.³⁶
- Historic memory blends with contemporary security concerns. All of China's greatest threats since the 19th century have come from the sea. China has strong memories of past attacks by the Europeans and Japanese. A threat from the United States—the only country able to prevent China from achieving its goals—would also come from the sea.
- The PLAN currently has four ballistic missile submarines (SSBNs), and a sea-based deterrent is now identified as an important component of China's overall nuclear strategy.³⁷
- In recent years, there has been an increasing emphasis on the need for China to contribute to international peacekeeping and other multilateral efforts to support the international order. China has been an active participant in the anti-piracy mission in the Gulf of Aden since December 2008. China has also

³⁶ Interviews with PLA and civilian think tank analysts conducted in 2010, 2011, 2012, 2013, and 2014. Deputy PLA Navy Commander ADM Tian Zhong, "Providing Strategic Support for the Building of a Maritime Power," *PLA Daily (Jiefangjun Bao)*, April 2, 2014. See chapter 9 for more detail on China's distant-water fishing fleet.

³⁷ *China's Military Strategy; Science of Military Strategy, 2013*, p. 211; Qian Xiaohu et al., "Heroic Nuclear Submarines, Sharpening Swords in the Depth of Vast Oceans," *PLA Daily (Jiefangjun Bao; 解放军报)*. October 29, 2013.

participated in UN peacekeeping operations in places such as Haiti, Lebanon, and Congo.³⁸ As *The Science of Military Strategy* notes, “As a globally influential great power...[our] participation in safeguarding international maritime security is both a requirement for safeguarding our own security interests and an important demonstration of fulfilling our international responsibilities.” It then goes on to directly link the development of maritime power with building a navy that is capable of participating in activities in support of the international order.³⁹

When will China become a maritime power?

Several Chinese sources offer timelines with the goal of making progress or moderate success by 2020, the 100th anniversary of the founding of the Chinese Communist Party.⁴⁰ Dates for China becoming one of the world’s leading maritime powers are usually given as either 2049 (the 100th anniversary of the founding of the People’s Republic) or 2050 (the year that Deng Xiaoping gave as being when China’s economic level should reach that of the most advanced industrial economies). It should be noted that these dates are used as symbolic markers for a wide variety of economic, political, and military goals. They serve as rhetorical markers rather than real timelines. In fact, the research for this paper strongly suggests that China will achieve the goal of being the leading maritime power *in all areas except its navy*, over the next 10 years.

This is not to suggest that the PLA Navy is lagging; to the contrary, it is an increasingly well rounded and technically capable force that is shifting focus to include missions beyond China’s home waters. In the not too distant future, it will be universally recognized as a legitimate “blue-water navy.”⁴¹

³⁸ See, for example, Emma Campbell-Mohn, “China: The World’s New Peacekeeper?” *The Diplomat*, April 8, 2015, <http://thediplomat.com/2015/04/china-the-worlds-new-peacekeeper/>.

³⁹ *Science of Military Strategy*, 2013, p. 211.

⁴⁰ Liu Cigui, “Striving to Realize the Historical Leap From Being a Great Maritime Country to Being a Great Maritime Power,” *Jingji Ribao Online*, November 2012.

⁴¹ Jesse L. Karotkin, “Trends in China’s Naval Modernization, US China Economic and Security review Commission Testimony,” 2014, http://www.uscc.gov/sites/default/files/Karotkin_Testimony1.30.14.pdf; and Office of Naval Intelligence, *The PLA Navy: New Capabilities and Missions for the 21st Century*, Washington, DC, July 2015, passim, http://www.oni.navy.mil/Intelligence_Community/china_media/2015_PLA_NAVY_PUB_Interactive.pdf.

Summary judgments

While the Communist Party has established a goal which clearly says that China will develop a wide range of capabilities related to the economic and military utilization of the seas, apparently there is still a lot of planning and research that needs to be done in order to translate the concept into reality. Writing in 2014, one maritime expert claimed, “[T]here must be overall strategizing and planning for building China into a maritime power. Guided by the spirit of the 18th CPC National Congress, we must carefully research the meaning of being a maritime power, a system of related indicators, and a timetable for achieving this goal.”⁴² Yet another official noted that China is “in a period of strategic planning for building into a maritime power, while it is also in a strategic period of transition for maritime standardization work.”⁴³ And an academic specializing in maritime issues has argued that “introducing policies for planning the building of national maritime strength and developing maritime industry are vital matters of immediate urgency.”⁴⁴

These observations were evidenced by the enormous numbers of articles and speeches uncovered in the process of researching this report. It is clear that the call for China to become a maritime power was not treated lightly in China. Following the 18th Party Congress, all of the major entities in China with interests in the maritime domain quickly sprang into action, pointing out how their particular aspect of China’s overall maritime enterprise could contribute to the national goal.

While a cynic could argue that this is normal bureaucratic behavior, meant to rationalize a call for a greater share of government resources, it is also true that the economic and geostrategic arguments made in support of becoming a maritime power are broadly correct. Furthermore, the desire to become a maritime power was not a spur-of-the-moment decision by Beijing. It is the culmination of many years of reflection by China’s strategic community and is firmly based on the realities of China’s geostrategic situation. A review of major speeches, PLA publications, authoritative civilian media, academic journals, and interviews with Chinese subject matter experts offers some important insights:

⁴²Chen Mingyi, “China Must be Built into a Maritime Power by 2050.”

⁴³Wu Qiong, “Standards Level the Playing Field—An Interview with Bian Mingqiu, Party Committee Secretary of the National Center of Ocean Standards and Meteorology,” *Zhongguo Haiyang Bao Online*, October 14, 2014.

⁴⁴Cao Wenzhen, “Promoting Maritime Awareness, Building National Maritime Strength—Maritime Power Strategies and the Chinese Dream.”

- There appears to be a broad consensus that maritime power is a combination of economic, military, and other forms of power on the seas.
- The goal is to ensure that China becomes a world leader across all the elements of maritime power.
- Chinese thinking on maritime power continues to evolve.
- Chinese maritime power is envisioned as eventually being global.

What is striking about the now-three-year-old decision is the breadth of its ambition. Based on our research, we conclude that the goal established by the 18th Party Congress is not that China should simply acquire capabilities that increase its maritime power, but that China should become one of the leading maritime powers. Remarks made by senior leaders since 2012 make it clear that the long-term goal is to develop capabilities that make China a leader across all aspects of maritime power. Simply having some of these capabilities means that China has some maritime power but that it is “incomplete.”⁴⁵

Chinese sources also strongly suggest that a key component of the goal of becoming a maritime power is a transition from a regional maritime actor to a global one. To be sure, many of China’s maritime concerns will likely continue to be concentrated in regional waters—that is, the “near seas.” However, it is clear from examining a wide variety of authoritative sources, that Chinese maritime power will also have an increasingly important global component. As the latest Chinese defense white paper states, the PLA Navy strategy is transitioning toward “open seas protection.”⁴⁶

Finally, as we will see in the subsequent chapters of this report, it is not as though China is embarking on a maritime power quest with the equivalent of a blank sheet of paper. Depending on what sector of China’s maritime capabilities one explores, it is already a power: it is a world leader in shipbuilding; it has the world’s largest fishing industry, which continues to grow; and its merchant marine is number one or two in the world, depending on what is being counted. It already has the largest coast guard, which continues to expand. In sum, when it comes to the tangible measure of maritime power: warships and civilian vessels of all kinds, plus the national infrastructure needed to maintain extant capability and add new capacity, China is a maritime power.

⁴⁵ Liu Cigui, “Striving to Realize the Historical Leap From Being a Great Maritime Country to Being a Great Maritime Power,” *Jingji Ribao Online*, November 2012.

⁴⁶ China’s Military Strategy.

Chapter 2: The Role of the PLA Navy in China's Goal of Becoming a Maritime Power⁴⁷

Alan Burns

Introduction

The latest PRC defense white paper, released in May 2015, defined the PLAN's role in reaching the national goal of becoming a maritime power in clear, mission-oriented terms under the broad concept of providing "strategic support."⁴⁸ It listed key navy missions:

- Developing a modern maritime military force structure
- Safeguarding sovereignty and maritime rights and interests
- Protecting the security of strategic sea lines of communication (SLOCs)
- Participating in international maritime cooperation.

This chapter focuses on the period between the releases of the 18th Party Congress report in November 2012 and the July 2015 defense white paper. Individuals in China who commented on the topic include both active and retired PLA and PLAN officers, as well as other subject matter experts (SMEs) who are frequently cited by state-run

⁴⁷This is an abridgment of a paper by Mr. Alan Burns, a research analyst in CNA's China Studies Division. The views expressed in this paper are strictly his own. The author is grateful to colleague Thomas Bickford, who provided feedback and useful suggestions on the content of this paper. A complete version of this paper can be found at https://www.cna.org/cna_files/pdf/Laying-Foundation.pdf.

⁴⁸ *China's Military Strategy*, The State Council Information Office of the People's Republic of China, May 2015, http://eng.mod.gov.cn/defensenews/2015-05/26/content_4586748.htm.

media. A handful of the sources, such as an essay by a deputy commander of the PLAN, Vice Admiral Tian Zhong, are systematic in outlining necessary tasks for the PLAN.

Role of the PLAN in various aspects of maritime power

The PLAN is considered essential or fundamental to becoming a maritime power. Unsurprisingly, PLAN commander Admiral Wu Shengli believes that a navy is the “mainstay” of maritime power.⁴⁹ Similarly, a *PLA Daily* reporter who had interviewed several of the PLAN’s representatives to the PRC National People’s Congress, stated that he heard from many of them that a powerful navy is a requirement for building China into a maritime power.⁵⁰

The most obvious role for the PLAN is to safeguard China’s maritime rights and interests, a concept which generally includes but is not limited to defending China’s sovereign rights in its territorial waters and exclusive economic zone (EEZ) and ensuring freedom of navigation for Chinese vessels on the high seas.⁵¹ Indeed, this is one of the tasks for the PLAN outlined in the 2015 defense white paper.⁵² Many Chinese observers also argue that a strong navy is the foundation for maritime power because it is necessary in order to provide security guarantees for other maritime activities. They point out that these activities require a fundamental level of security in order to reach their full potential, and that security must inevitably be provided by the PLAN. The overall impression from public discourse is that the Chinese navy must prepare to respond to both traditional and non-traditional security threats.

Senior Captain Wang Xiaoxuan of the PLAN Naval Research Institute (NRI) offered a more detailed explanation that rationalizes the role of the PLA Navy in the context of

⁴⁹ Fan Jianghuai, Liu Gang, “PLA Navy Commander Wu Shengli Delivers a Keynote Speech at the Annual Meeting of the Western Pacific Naval Symposium,” *PLA Daily (Jiefangjun Bao)*, 23 April 2014.

⁵⁰ Luo Jing, “Maritime Power, an Inevitable Choice in Implementing the Chinese Dream,” *PLA Daily (Jiefangjun Bao)*, 9 March 2013, http://www.chinamil.com.cn/jfjbmap/content/2013-03/09/content_29680.htm.

⁵¹ For a longer and more systematic discussion of exactly what the Chinese concept of “maritime rights and interests” entails, see chapter 2 of this report.

⁵² China’s Military Strategy.

China becoming a maritime power.⁵³ He described building a maritime power as a “comprehensive concept.” The ability to guarantee maritime security is itself an important component of maritime power and, at the same time, ensures that the other components of China’s maritime power are able to function without hindrance. He cautions that both traditional security threats, such as maritime conflict or war, and nontraditional security threats, such as natural disasters, could derail the process of building China into a maritime power. To prevent this, China must have: (1) security of sovereign rights over islands, reefs, and territorial waters; (2) security of the sea lanes; (3) security of efforts to develop maritime resources; and (4) security of overseas Chinese and their investments.

PLA Navy officers are not alone in arguing that a strong navy is an essential requirement for ensuring the success of building China into a maritime power. For example, in January 2014, Chen Mingyi, a member of the State Oceanic Administration’s (SOA’s) Senior Advisory Committee on National Maritime Program Development, stated in the official SOA newspaper that building China into a maritime power “requires having [a] powerful [and] modernized” navy.⁵⁴ Chen then expanded on three tasks that a “powerful” navy must be able to accomplish:

- Protect China’s rights in the waters under its jurisdiction.
- Guarantee the freedom of navigation of all types of Chinese merchant vessels in international waters.
- Protect China’s expanding overseas interests, including citizens residing abroad and overseas investments.

Despite the emphasis on the PLAN’s mission of defending China’s maritime rights and interests, Chinese observers are also careful to note that China does not intend to become a “maritime hegemon” and that its goal of becoming a maritime power remains peaceful. Jin Yongming, director of the Center for Chinese Maritime Strategy Studies of the Shanghai Academy of Social Sciences, wrote in China’s official English-language newspaper, *China Daily*, that China’s leadership wishes to distinguish itself from “traditional maritime powers,”⁵⁵ while at the same time claiming that China will use “all its strength,” including political, economic, legal, cultural, and military measures, to defend its maritime rights and interests. He added that China would

⁵³ “More than 30 Experts and Academics Enthusiastically Discuss ‘Maritime Views and Building a Maritime Power,’” *China Ocean Report (zhongguo haiyang bao)*, 3 September 2014, <http://fujian.people.com.cn/ocean/n/2014/0903/c354245-22197895.html>.

⁵⁴ Chen Mingyi, “China Must Be Built Into a Maritime Power by 2050,” *China Ocean Report (zhongguo haiyang bao)*, 13 January 2014.

⁵⁵ Jin Yongming, “Maritime State to Maritime Power,” *China Daily*, 5 August 2014.

develop its navy “in proportion to its overall strength.” This echoes the 18th Party Congress work report and 2013 defense white paper, both of which stated that China’s goal was to build a military that would be “commensurate” with China’s international standing.⁵⁶ The 2015 defense white paper similarly added that China must develop a “modern maritime military force structure” commensurate with its maritime rights and interests.⁵⁷

PLAN in support of China as maritime power

Much public discussion of the PLAN’s role simply asserts that China needs a “strong” navy to become a maritime power. Some sources, however, offer much more detail on what “strong” might mean. One of the most important of these to be published during the past two years is an essay from Vice Admiral (VADM) Tian Zhong, a deputy commander of the PLAN. On April 2, 2014, *PLA Daily* published 18 articles from various high-ranking PLA commanders, including VADM Tian, which focused on the study and implementation of President Xi Jinping’s statements on national defense and army building. Essentially, these articles described how various PLA services and military regions would support Xi’s goals for the development of the Chinese military.

VADM Tian’s essay, “Providing Strategic Support for the Building of a Maritime Power,”⁵⁸ is arguably one of the most pertinent and authoritative documents issued on the PLAN’s role in reaching China’s goal of becoming a maritime power. Of note, the 2015 defense white paper—released over a year after VADM Tian’s article appeared—copied his language describing the PLAN’s role as “providing strategic support for building [China] into a maritime power” nearly word for word.⁵⁹

A strong navy is identified as fundamental to maritime power to protect a nation’s maritime rights and interests. Tian argued that the navy must strengthen preparation for maritime combat and focus on “being able to fight and win wars”—specifically, “maritime local wars under informatized conditions.” In the same vein, Senior

⁵⁶ “Full Text of Hu Jintao’s Report at 18th Party Congress,” Xinhua, 17 November 2012, http://news.xinhuanet.com/english/special/18cpcnc/2012-11/17/c_131981259.htm; “Full Text: The Diversified Employment of China’s Armed Forces,” Information Office of the State Council of the People’s Republic of China, 16 April 2013, available from Xinhua: http://news.xinhuanet.com/english/china/2013-04/16/c_132312681.htm.

⁵⁷ China’s Military Strategy.

⁵⁸ Deputy PLAN commander Admiral Tian Zhong, “Providing Strategic Support for the Building of a Maritime Power,” *PLA Daily* (Jiefangjun Bao), 2 April 2014.

⁵⁹ China’s Military Strategy.

Captain Zhang Junshe of the Naval Research Institute argued that China must build a strong navy, not only to contain wars and win wars, but also to effectively protect national development interests and maritime rights and interests, including the security of its maritime economy.⁶⁰

VADM Tian also identified improving readiness as a key goal for the PLAN. He stated that the PLAN must strengthen “daily combat readiness work” and always maintain a “high degree of readiness.” The PRC State Council Information Office spokesman noted the establishment of a combat patrol system in “relevant sea areas of responsibility,” as one step that had already been taken towards building China into a maritime power.⁶¹ Senior Captain Zhang stated that strong naval forces, providing support for building China into a maritime power, should “closely observe, actively be on guard, and prepare at any time to respond to military conflict.”

When it came to force structure and weapons systems, VADM Tian was vague, listing such goals as optimizing maritime combat systems, developing new combat platforms and precision strike weapons, and improving information systems for maritime combat. Given that the information is probably classified, it is no surprise that no Chinese observers have remarked on the details of the required weapon systems or given any figures on the number of combat ships, submarines, or aircraft that China should build. That said, a constant refrain emphasizes the importance of information technology and information warfare for the future of the PLAN.⁶²

Naturally, retired naval officers argue that investment in navy capabilities remains far too low. Retired RADM Yin Zhuo, for example, argued that the Chinese navy’s share of defense spending is lagging, and *that the speed of its development has been easily outpaced by the expansion of China’s overseas interests*.⁶³ His theme is that China’s maritime interests continually expand and that, because China does not possess overseas bases (or did not at that time), the navy is the most appropriate military service for protecting these expanding interests. (The implication of this formulation is that, with bases, the PLA Air Force could also play a role in protecting expanding interests.)

⁶⁰ Zhang Junshe, “Economic Maritime Strategy Calls Out for a Strong Navy,” *PLA Daily (Jiefangjun Bao)*, 14 August 2013, http://chn.chinamil.com.cn/gd/2013-08/14/content_4550092.htm.

⁶¹ “Press Conference on PRC Defense White Paper,” PRC State Council Information Office, 16 April 2013.

⁶² Guo Lulu, Zhu Xiaosheng, “On Modern China’s Maritime Power Strategy” (*dangyi dangdai zhongguo haiyang qianguo zhanlue*), *Theoretical Boundary (lilun jie)*, no. 2 (2013).

⁶³ “Yin Zhuo: China Will Not Fire the First Shot; But Will Definitely Fire the Second Shot,” China National Radio, 3 March 2014, http://news.cnr.cn/native/gd/201403/t20140303_514973037_1.shtml.

In February 2014, the *PLA Daily* carried a readout of PLAN training goals for 2014 that were addressed during a plenary meeting of the PLAN Communist Party Committee.⁶⁴ The *PLA Daily* portrayed these training goals as supporting China's goal of becoming a maritime power, and described the committee members as concerned with the task of supporting the PLAN's "serious mission" of protecting China's maritime rights and interests. The committee identified improving the level of realism in training as an important objective for the navy.

The PLAN is already a contributor to China's maritime power

A *PLA Daily* article focused on the PLAN's contribution to the process of becoming a maritime power.⁶⁵ The article stated that in 2012 the PLAN carried out several training exercises in the West Pacific (meaning beyond the "first island chain"), and in 2013 the three fleets of the PLAN carried out "far seas confrontation exercises" in the West Pacific. In 2014 the South Sea Fleet for the first time sailed to both the Indian Ocean and the West Pacific to carry out training. An essay by two authors from the CCP Central Party School outlined these accomplishments by the PLAN that have helped strengthen its capabilities in the process of building China into a maritime power.⁶⁶ The essay listed China's Gulf of Aden deployments, a non-combatant evacuation operation to aid Chinese citizens in Libya, training exercises outside the first island chain, and participation in international disaster relief operations as examples of operations that have helped strengthen the capabilities of the PLAN and protect China's maritime interests. The authors noted that China should undertake more "historic missions" such as these in the future in order to promote PLAN modernization—a revealing observation regarding the internal PLA "competition" for budget share.

⁶⁴ Wu Chao, Cao Jinping, Qian Xiaohu, "Naval Units Explore Using Combat Power as the Standard in Improving Real War Capabilities," *PLA Daily (Jiefangjun Bao)*, 18 February 2014.

⁶⁵ "Navy Representatives Enthusiastically Discuss: Maritime Power Requires a Strong Navy," *PLA Daily (Jiefangjun Bao)*, 8 March 2013, http://mil.cnr.cn/ztl/2014lh/lhgz/201403/t20140308_515022304.html.

⁶⁶ Zhang Mingming, Liu Yunzhong, "Some Reflections on China Building a Maritime Power," *Contemporary World (Dangdai Shijie)*, 20 February 2014, available on the website of *People's Daily*, <http://world.people.com.cn/n/2014/0220/c187656-24420057.html>.

The relationship between “near seas” and “far seas” in PLAN development

The future of PLAN force structure development will be influenced to a large extent by the priority given to “near seas” strategy and “far seas” capabilities. In Chinese military terminology, “near seas” (*jinhai*), sometimes translated as “offshore,” typically describes operations within the first island chain. However, the first island chain is not necessarily a hard-and-fast boundary between the near and far seas. Increasingly, the distinction as used is relatively flexible, and appears to evolve as the navy’s capabilities improve. For example, “near seas” is sometimes expanded to include waters east of the first island chain and the strategic chokepoints leading into it.

“Far seas” (*yuanhai*) describes operations well outside this area and, by implication, includes China’s sea lanes in the Indian Ocean. Operationally the distinction between “near seas” and “far seas” is between defending China proper and its claimed territories from attack and protecting Chinese interests and sea lanes abroad. This distinction was made clear in the 2015 defense white paper, which says that the PLAN “will gradually shift its focus from offshore waters defense to the combination of offshore waters defense with open seas protection.” In short, “open seas protection” will eventually become a very important mission,⁶⁷ which in turn will require a buildup in the navy’s far-seas-capable ships.

Chinese writings on maritime power frequently argue that China must achieve naval superiority in its near seas regions while increasingly improving its far seas capability. *Significantly, comprehensive far seas capabilities are often described as an important indicator that a country has achieved maritime power status.* For example, in a journal article discussing China’s maritime power goal, two scholars from the International Studies Institute of Beijing’s Renmin University made a useful distinction between achieving “absolute” security in near seas and establishing “effective deterrence” in far seas.⁶⁸ According to them, full control of the waters of near seas regions is necessary in order to achieve defense in-depth, protect sovereign rights, and maintain the unity of the nation. However, they emphasized that, because of the expansion of China’s maritime interests, this is not enough. China should also develop a far seas navy that can serve not only as a “shield” in near seas but also as a “sword” in far seas. They argued that as China’s maritime interests and security

⁶⁷ China’s Military Strategy.

⁶⁸ Guo Lulu, Zhu Xiaosheng, “On Modern China’s Maritime Power Strategy,” *Theoretical Boundary* (lilun jie), no. 2 (2013).

needs continuously expand, the range of the Chinese navy's defensive capabilities should also expand. In short, these authors were describing the difference between a regional navy and a global navy.

Their view aligns with many Chinese sources which describe China's defensive strategy in near seas and in far seas with slightly different terminology. The term "near seas defense," or *jin hai fangyu*, refers to China's "active defense" strategic approach, while "far seas defense," or *yuan hai fangwei*, connotes a more reactive activity such as "safeguarding" or "protecting."⁶⁹ Notably, the 2015 defense white paper replaced *fangwei* with *huwei*, which is even more clearly translated as "protection" or "safeguarding" and not "defense." The obvious example is the PLAN's anti-piracy patrols that "protect" ships from pirate attacks.⁷⁰

At a roundtable on China's maritime power, held at Shanghai University in 2013, Major General Ji Mingkui, a PLA National Defense University scholar, similarly pointed out that near seas defense and far seas defense are both important aspects of protecting China's maritime rights and interests.⁷¹ He argued that, while China has accomplished much in improving its near seas defense, it still lags behind international standards. He identified some revealing shortcomings in China's near seas capabilities, including "various kinds" of difficulties in the "organic integration" of the forces of each service, as well as the integration of air and space forces, early warning aircraft, air defense units, surface ships, and coastal radar systems. (Presumably, these are the sorts of weaknesses that the recently announced reorganization of the PLA—which includes standing "joint war zone" commands or "theaters of operations"—is intended to address.)⁷² In regard to far seas capabilities, he added that China must learn to use the various capabilities of aircraft carriers, including their peacetime and wartime uses, but that it should not build "too many" more of them, in order to avoid an arms race.

Other sources describe far seas capabilities, or at least a change in focus from near seas to far seas capabilities, as an important move to support China's transformation

⁶⁹ The author has also touched on this difference in terminology in discussion with analysts in China, who are also unsure how to translate *fangyu* and *fangwei* into English but seem content with the distinction made above.

⁷⁰ China's Military Strategy.

⁷¹ Zhao Zhao, "Thoughts on Building a Maritime Great Power," *Theory Boundary (lilun jie)*, no. 8 (2013).

⁷² David M. Finkelstein, *Initial Thoughts on the Reorganization and Reform of the PLA*, CNA China Studies, January 15, 2016, *passim*, https://www.cna.org/cna_files/pdf/DOP-2016-U-012560-Final.pdf.

into a maritime power. A scholar from the Dalian Maritime University, for example, argued that China's heavy reliance on seaborne trade for its economic growth and its energy needs requires that the Chinese navy possess a "far seas combat capability" to support China's future status as a maritime power.⁷³

Another scholar, from the Nanjing Political Academy, asserted that Chinese naval strategy should shift from near seas to far seas defense to meet the needs of China's process of building up its maritime capabilities. These Chinese observers, however, do not address an important distinction between SLOC protection in peacetime and that in wartime. China has already demonstrated the capability to carry out the former—for example, in counter-piracy operations in the Gulf of Aden—but wartime SLOC protection may remain an aspirational capability for the PLAN for the next five to 10 years. In this regard, the recent deployment of both conventional and nuclear-powered submarines to the Indian Ocean suggests that the PLAN is exploring the contribution that submarines can make in defending key sea lanes from wartime interdiction.

Implications for the United States and U.S. allies

Chinese public discussion reveals that China's goal of becoming a maritime power has two major implications for the United States, one at the policy level and one at the operational level. First, China's relations with the United States and its allies in the Asia Pacific have an important negative impact on China's efforts to become a maritime power.

Some excellent examples of this are presented in an essay, mentioned above, which was penned by two authors affiliated with the CCP Central Party School, and published in a journal under the management of the International Department of the CCP Central Committee.⁷⁴ The essay outlines several challenges that China faces as it seeks to become a maritime power. One is described as the "increasingly complicated" maritime sovereignty disputes in the East and South China Seas, demonstrated by deteriorating Sino-Japanese relations since Japan's nationalization

⁷³ Zhang Li, Yang Shou, "Core Factors, Comprehensive Development, Reasonable Advancement," *Chongqing Socialism Institute Journal (chongqing shehui zhuyi xueyuan xuebao)*, no. 5 (2013).

⁷⁴ The first author, Zhang Mingming, is a professor and director of the International Politics office of the Party School's International Strategic Studies Institute. The second author, Liu Yunzhong, is affiliated with the same institute at the Party School. For their essay, see: Zhang and Liu, "Some Reflections on China Building a Maritime Power."

of the Senkaku/Diaoyu Islands in 2012, and disputes over territorial claims and resources in the South China Sea with Vietnam and the Philippines. The authors also identified the U.S. rebalance to Asia as another major challenge to China's goal of becoming a maritime power. They described the central goals of the rebalance as containing China's rise and maintaining America's dominance over regional maritime affairs. They cited several recent U.S. actions that they argued were carried out to support these goals: strengthening the U.S.-Japanese alliance, continuing arms sales to Taiwan, introducing the strategy of Air-Sea Battle, attempting to internationalize South China Sea disputes, and strengthening military cooperation with India. The authors asserted that these moves have narrowed China's strategic space and increased the pressure on China's maritime security.

Other Chinese observers have identified the U.S. rebalance to Asia as a factor in China's desire to become a maritime power. For example, Jia Xudong of the China Institute of International Studies, which is the Foreign Ministry's think tank, wrote in *People's Daily* that oceans are an important resource for China's sustainable development but also are sources of threats; therefore, building China into a maritime power has "great significance" for China's development and security interests.⁷⁵ In terms of threats, Jia identified not only the "illegal occupation" of China's "islands, reefs, and waters" by littoral states such as Japan, the Philippines, and Vietnam, but also the U.S. "rebalance" strategy, which he argued is designed to maintain a "strategic advantage" over China at sea.⁷⁶

The second consequence that China's maritime power goal has for the United States is that the PLAN will have an increasing number of blue-water operations in areas beyond the first island chain. The 2015 white paper states that "the PLA Navy (PLAN) will gradually shift its focus from 'offshore waters defense' to the combination of 'offshore waters defense' with 'open seas protection,'" which strongly suggests that the open seas protection mission will gradually assume a roughly coequal place in China's naval strategy. This in turn will eventually lead to a greater balance in Chinese naval capabilities between those optimized for offshore waters defense (near seas) and those capable of conducting open seas (far seas) missions. This means that China will continue to conduct more naval exercises in the Western Pacific, the Indian Ocean, and beyond.⁷⁷ The U.S. military will likely need to accustom itself to more frequent and more varied interactions with the Chinese navy in new areas beyond the

⁷⁵ Jia Xudong, "China Strikes Strongest Note Yet about Maritime Rights Defense," *People's Daily Overseas Edition (renmin ribao haiwai ban)*, 3 August 2013.

⁷⁶ *Ibid.*

⁷⁷ Christopher H. Sharman, *China Moves Out: Stepping Stones Toward a New Maritime Strategy*, National Defense University, China Strategic Perspectives 9 (Washington, D.C.: National Defense University, April 2015).

Western Pacific. Over time, the PLAN will become a routine international presence, and U.S. combatant commanders far from the Asia Pacific will need to consider Chinese national interests along with Chinese naval presence when contemplating contingency operations.

Concluding thoughts

The role of the PLAN in China's national objective of becoming a maritime power was not spelled out until the May 2015 white paper on China's military strategy, the details of which are found in chapter 1 of this report.⁷⁸ The fact that the PLAN is deemed necessary to provide "strategic support" for China's maritime power endeavor suggests that it is the firm foundation upon which China's maritime power ambitions rest.

Perhaps one of the most significant findings for the United States is the commentary by Chinese analysts who write that U.S. presence in the Western Pacific associated with Washington's rebalance strategy is an impediment to Chinese maritime power ambitions. The implication seems clear: for the PLAN to fulfill its contribution to the national maritime power objective, it must be able to defend all of China's maritime rights and interests in its near seas. In short, it must be able to execute what the latest defense white paper terms "offshore waters defense" for China to be considered a maritime power.

This leads directly to the greatest uncertainty surrounding Beijing's maritime power goal: What size navy will the leadership of China decide satisfies this objective? What additions to near seas (offshore waters defense) capabilities are required? How many "far-seas-capable" ships will Beijing decide it needs? How will China counter America's "strategic advantage at sea"? Unfortunately there are no clear answers to these questions. The next chapter will explore the far seas (open seas protection) aspect of these questions and make a projection regarding the size of the PLAN's far seas force around the end of this decade.

⁷⁸ China's Military Strategy, pp. 3, 5, 8, 9.

Chapter 3: China's Far Sea's Navy: The Implications of the "Open Seas Protection" Mission⁷⁹

Michael McDevitt

Introduction

China has not yet revealed the details of how large a navy it feels it needs, but Beijing has been remarkably transparent in disclosing its overall maritime ambitions, which depend first and foremost on a strong PLAN. Three years ago, the PLA explicitly addressed the issue of becoming a "maritime power":

China is a major maritime as well as land country. The seas and oceans provide immense space and abundant resources for China's sustainable development, and thus are of vital importance to the people's well-being and China's future. It is an essential national development strategy to exploit, utilize and protect the seas and oceans, **and build China into a maritime power. It is an important duty for the PLA to resolutely safeguard China's maritime rights and interests.** (Emphasis added.)⁸⁰

Two years later, the PLA was even more specific in addressing its far seas ambitions. These ambitions were dictated by Beijing's belief that it must be able to protect its

⁷⁹ This chapter by Michael McDevitt is based upon a paper prepared for the CNA conference associated with this project. The author is a retired USN rear admiral, who, since retirement, has been a vice president, and more recently a senior fellow, with the Center for Naval Analyses, a 70-year year-old federally funded research center that specializes in maritime-oriented research and analyses.

⁸⁰ See State Council Information Office, *The Diversified Employment of China's Armed Forces*, April 2013, Beijing. The official English translation is available at: http://news.xinhuanet.com/english/china/2013-04/16/c_132312681.htm.

vital sea lanes and its many political and economic overseas interests—including, of course, the millions of Chinese citizens working or travelling abroad.

This was explicitly spelled out in the 2015 Chinese defense white paper, entitled *China's Military Strategy*.⁸¹ According to the white paper:⁸²

With the growth of China's national interests...the security of overseas interests concerning energy and resources, strategic sea lines of communication (SLOCs), as well as institutions, personnel and assets abroad, has become an imminent issue. ...

In line with the strategic requirement of offshore waters defense and open seas protection, the PLA Navy (PLAN) will gradually shift its focus from “offshore waters defense” to the combination of “offshore waters defense” with “open seas protection,” and build a combined, multi-functional and efficient marine combat force structure.

It is necessary for China to develop a modern maritime military force structure commensurate with its national security and development interests, safeguard its national sovereignty and maritime rights and interests, protect the security of strategic SLOCs and overseas interests, and participate in international maritime cooperation, so as to provide strategic support for building itself into a maritime power.

Offshore waters defense—the PLAN's role in defending China proper

This chapter will focus on PLAN “far seas” capability; however, the defense of China itself (what the latest white paper calls “offshore waters defense”) remains the PLAN's most important mission. In practical terms, “off-shore waters defense” refers to the area between China's coastline and the second island chain—think the Philippine Sea—including, of course, the East and South China Seas—the area where U.S. forces would encounter China's attempts to keep the United States from interfering with its offshore military operations.⁸³ “Offshore waters defense” seems to be a new Chinese

⁸¹ The State Council Information Office of the People's Republic of China, *China's Military Strategy*, May 2015, <http://eng.mod.gov.cn/Database/WhitePapers/index.htm>.

⁸² *Ibid.*, pp. 3, 8, 9.

⁸³ The maritime space to be defended is based on PLA estimates of the range of weapons carried by an attacking force, and is not determined by island-chain boundaries. For example,

formulation for what has traditionally been called “active defense,” or, as it has been dubbed by the Pentagon, A2/AD. It is a joint campaign that involves the PLA Navy, Air Force, and Strategic Rocket Force, and has the operational objective of keeping approaching hostile forces at bay by attacking them far from China (A2, anti-access) or if that fails, or if hostile forces are already within striking range of China (as much of the U.S. 7th Fleet would likely be in case of conflict), attempt to deny them freedom of operational and tactical action (AD, area-denial).⁸⁴

The fact that China wants to be able to control, or at least deny control of its near seas, should not be a surprise; 12 years ago this objective was spelled out. In its 2004 defense white paper, China is clear about the goal of being able to achieve command of the sea:

While continuing to attach importance to the building of the Army, the PLA gives priority to the building of the Navy, Air Force and Second Artillery force to seek balanced development of the combat force structure, *in order to strengthen the capabilities for winning both command of the sea and command of the air, and conducting strategic counter strikes* (emphasis added).⁸⁵

The PLA Navy’s main contribution to defending against an enemy from the sea is its submarine force and land-based naval air forces. These units would operate in concert with the Strategic Rocket Force’s conventionally armed ballistic missile force—especially the DF-21D, which carries a maneuverable warhead that purportedly can hit a moving ship. (It is not clear that this capability has ever been tested at sea.) The PLA Air Force also plays a crucial role. Aircraft launched from land bases carrying long-range anti-ship cruise missiles are a potent threat; particularly as the PLAAF continues to improve its over-water operational skill, and its ASCMs improve in range and sophistication.

according to a PLA open source assessment, the refueled combat radius of an F/A-18 is 1,200 nautical miles. Whether this is accurate is not the point. What is germane is that the article gives a hint of the range at which the PLA starts to worry about an approaching aircraft carrier. Li Xinqi, Tan Shoulin, Li Hongxia (The Second Artillery Engineering College, Xian, China), “Precaution Model and Simulation Actualization on Threat of Maneuver Target Group on the Sea,” August 1, 2005, in author’s possession.

⁸⁴ From the perspective of the approaching “blue” naval force, what China’s “offshore waters defense” means in practical terms is that it will have to fight to gain the “sea control” that is essential to conducting operations, and will have to fight to sustain “sea control” if the naval campaign is envisioned as lasting longer than a hit-and-run raid.

⁸⁵ PRC Defense White Paper, December 2004, Information Office of the State Council of the PRC, December 2004, Beijing, <http://english.people.com.cn/whitepaper/defense2004>.

But beyond capable platforms operated by competent submariners and airmen, the success in any off-shore waters defense operation depends on finding ships on the high seas, which means maintaining an up-to-date surveillance picture of the thousands of square miles of the Pacific Ocean that constitute the seaward approaches to China. Surveillance is absolutely essential for locating approaching warships and then targeting ballistic missiles, as well as providing an attack vector to slower-moving aircraft and submarines, to show where to go in order to intercept approaching naval strike forces.

The PLA Navy's surface warships are not likely to play a major offensive role in such a campaign because once they venture out beyond Chinese land based air cover, perhaps 200-300 nautical miles (NM), they become vulnerable to hostile air attack, or become easier pickings for submarines. They do have a role in providing close-in anti-submarine protection, and possibly a role as seaward extensions of China mainland air defenses, in the waters very near to China—specifically, the East China Sea and in the vicinity of important Chinese bases in the northern portions of the South China Sea. The PLAN surface navy does have another important role, of course, if the conflict involves an invasion of Taiwan. It would be its job to get the PLA Army to Taiwan and keep it re-supplied, as well as dealing with the Taiwan navy.

Very important new tasks related to far seas operations

It is significant that the white paper indicates that “the PLA Navy (PLAN) will gradually *shift its focus from* ‘offshore waters defense’ to *the combination of* ‘offshore waters defense’ with ‘open seas protection,’ and build a combined, multi-functional and efficient marine combat force structure.”⁸⁶ This passage suggests that protecting overseas interests and sea lanes is forecast to become as important to China's leadership as defending China itself.

It is too soon to judge whether the overseas interests alluded to in the white paper could be characterized as “core” interests; however, in terms of PLA strategic thinking, it is clear that they are very significant. They are also of budgetary

⁸⁶ Ibid., p. 8. “Open seas protection” essentially focuses on other missions that would include protection of China's sea lanes that cross the Indian Ocean enroute to or from China. But, to be clear, SLOC protection operations can take place in both China's near seas and far seas; it is not exclusively a far seas mission.

significance since the bulk of the “open seas protection” effort falls to the navy and air force, not the army or the newly renamed PLA Rocket Force.⁸⁷

This chapter focuses on the PLAN, because of the importance that the white paper placed on protecting sea lanes. This emphasis is new and is different from the now-almost-decade-old guidance found in earlier white papers, which focused on the *peacetime*, or “military operations other than war” (MOOTW), uses of the navy.⁸⁸

But, in the 2015 white paper, the enumeration of peacetime MOOTW missions no longer includes any reference to the sea lanes on which China relies. These are addressed in separate sections within the context of “protection,” which indicates that thinking about open seas has shifted from conceptually framing those operations as strictly peacetime, to considering a broader framework that takes into account the need to protect “strategic SLOCs” in wartime. This has obvious long-term implications for PLAN force structure: the protection of crucial sea lanes which originate in the far western Indian Ocean requires a mix of ships, aircraft, and submarines that can credibly accomplish such a mission thousands of miles from Chinese home territory.

“Open seas protection” ... on the road to a global navy

It is important to appreciate that the mission of “open seas protection” did not materialize overnight; it represents an evolution in Chinese thinking about how to use the PLAN beyond China’s seaward approaches. It can be traced in official pronouncements to 2004,⁸⁹ when the PLA was for the first time assigned responsibilities well beyond China and proximate waters. This was official recognition that China’s national interests now extended beyond its borders and that the PLA’s missions were to be based on those expanding interests, not just

⁸⁷ Formerly the Second Artillery Force. See David M. Finkelstein, *Initial Thoughts on the Reorganization and Reform of the PLA*, CNA China Studies, January 15, 2016, p. 13, http://www.chinadaily.com.cn/world/2014livisitafrica/2014-05/10/content_17497900.htm.

⁸⁸ The term “MOOTW” is yet another thing that the PLA has “borrowed” from the U.S. military. See *Joint Doctrine for Military Operations Other than War* (Joint Pub 3-07), 16 June 1995, http://www.bits.de/NRANEU/others/jp-doctrine/jp3_07.pdf.

⁸⁹ Hu Jintao, “Understand the New Historic Missions of our Military in the New Period of the New Century,” available on the National Defense Education website of Jiangxi Province, <http://gfjy.jiangxi.gov.cn/yl.asp?did+11349.htm>.

geography.⁹⁰ For instance, the 2008 defense white paper states that China continues to develop its ability to conduct “offshore” operations *while gradually building* its ability to conduct operations in “distant seas.”⁹¹ As we shall see, the injunction to “gradually build” capability has been taken to heart by the PLA Navy.

The “open seas protection” mission also makes sense within the context of Xi’s much-ballyhooed 21st Century Maritime Silk Road, which will run from China’s major ports through the Indonesian Straits, and then proceed along the Indian Ocean’s northern littoral, grazing East Africa, before transiting the Red Sea and Suez Canal into the Eastern Mediterranean. This “road” is already heavily traveled by China’s shipping, but if China does invest in infrastructure along the route, as it has promised to do, it will need to look after those investments as well as its shipping.⁹²

Finally, we cannot overlook the influence that outside voices have had on the generation of the “open seas protection” mission. If China has had doubts about the dependence of its economy—and, as a result, the survival of the regime—on its sea lanes, that uncertainty has long since been removed by a number of Western “strategists” writing that in time of conflict the way to bring China to its knees is to cut its sea lanes.⁹³

⁹⁰The “New Historic Missions” speech triggered a discussion among Chinese strategists, both in and out of uniform, over security interests well beyond China’s near seas. The geographical characterization of this emerging issue was *yuanhai* in Chinese, translated as either “open seas” or “distant seas.” The term *yuanhai* can also be translated as “distant oceans.” Some English sources translate the term as “blue water.”

⁹¹ *China’s National Defense in 2008* (Beijing: Information Office of the State Council, 2009). (Emphasis added.) Available at: http://www.china.org.cn/government/central_government/2009-01/20/content_17155577.htm.

⁹² Bert Hoffman, “China’s One Belt One Road Initiative: What we know so far,” The World Bank East Asia and Pacific on the Rise blog, December 4, 2015, <http://blogs.worldbank.org/eastasiapacific/china-one-belt-one-road-initiative-what-we-know-thus-far>

⁹³ See for example, Douglas C. Peifer, “China, the German Analogy, and the New Air-Sea Operational Concept,” *Orbis* 55, no. 1 (Winter 2001); T.X. Hammes, “Offshore Control: A Proposed Strategy for an Unlikely Conflict,” *Strategic Forum* 278 (Washington, DC: NDU Press, June 2012); Geoff Dyer, *The Contest of the Century: The New Era of Competition with China and How America Can Win* (New York: Knopf, 2014), chapter 2; and Sean Mirski, “Stranglehold: Context, Conduct and Consequences of an American Blockade of China,” *Journal of Strategic Studies* 36, no. 3 (2013).

The “open seas protection” force structure is already being built

China does not need a “far seas” (what the U.S. might term a “blue water”) navy to execute near seas “offshore waters protection” operation, but it does need one if it hopes to accomplish the mission set associated with “open seas protection.”⁹⁴ This requires a different mix of naval capabilities from what is needed for wartime defense of China proper. Far seas operations demand multi-product logistics support ships, amphibious ships with helicopter facilities, larger multi-mission destroyers and frigates with better endurance and reliable propulsion systems, helicopter facilities, improved anti-submarine systems, and, especially, longer-range air defenses.

Nuclear-powered submarines also have an important role to play. These classes of submarines (SSNs) are best suited for far seas deployments because of their long range, high underwater speed, and ability to stay submerged for very long periods of time. But even with these advantages, as the USN has long realized, even SSNs require logistic support and voyage repair when on sustained deployments thousands of miles from a traditional support base. That is why the USN maintains a forward-deploying submarine tender in either Guam or Diego Garcia. China is likely to make similar support arrangements for far-seas-deploying SSNs.

Operating thousands of miles away from its land-based air cover, a credible Chinese distant-seas navy must be able to defend itself from air attack. Destroyers with long-range surface-to-air missiles can provide such defense where the air threat is limited, but most of China’s most important SLOCs—e.g., in the Northern Arabian Sea/Gulf of Aden—face a more substantial air threat. This was a very important (although not the only) factor in China’s decision to build a modest aircraft carrier force.⁹⁵ Although the ski-jump take-off used on China’s carrier, *Liaoning*, imposes weight penalties on the type and amount of ordnance the aircraft can launch with, its jets can provide air cover for the PLAN’s open-seas protection operations. Looking ahead, all indications

⁹⁴ Needed capabilities shift to surface ships rather than to the land-based air and submarines that are the mainstay of the PLAN contribution to A2/AD. Recent PLAN submarine deployments to the Indian Ocean have indicated that submarines, especially nuclear-powered attack submarines (SSNs) and modern AIP-equipped conventional submarines, also factor into PLAN calculations regarding open seas protection. For an Indian perspective, see P.K. Ghosh, “Game Changers? Chinese Submarines in the Indian Ocean,” *The Diplomat*, July 6, 2015, <http://thediplomat.com/2015/07/game-changers-chinese-submarines-in-the-indian-ocean/>.

⁹⁵ Nan Li and Christopher Weuve, “China’s Aircraft Carrier Ambitions: An Update,” *Naval War College Review* (Winter 2010): 15. www.usnwc.edu/publications/Naval-War-College-Review/2010---Winter.aspx.

are that around the years 2020-22, the PLAN will likely operate two *Liaoning*-style aircraft carriers.

J-15 prepared to launch from *Laioning*⁹⁶

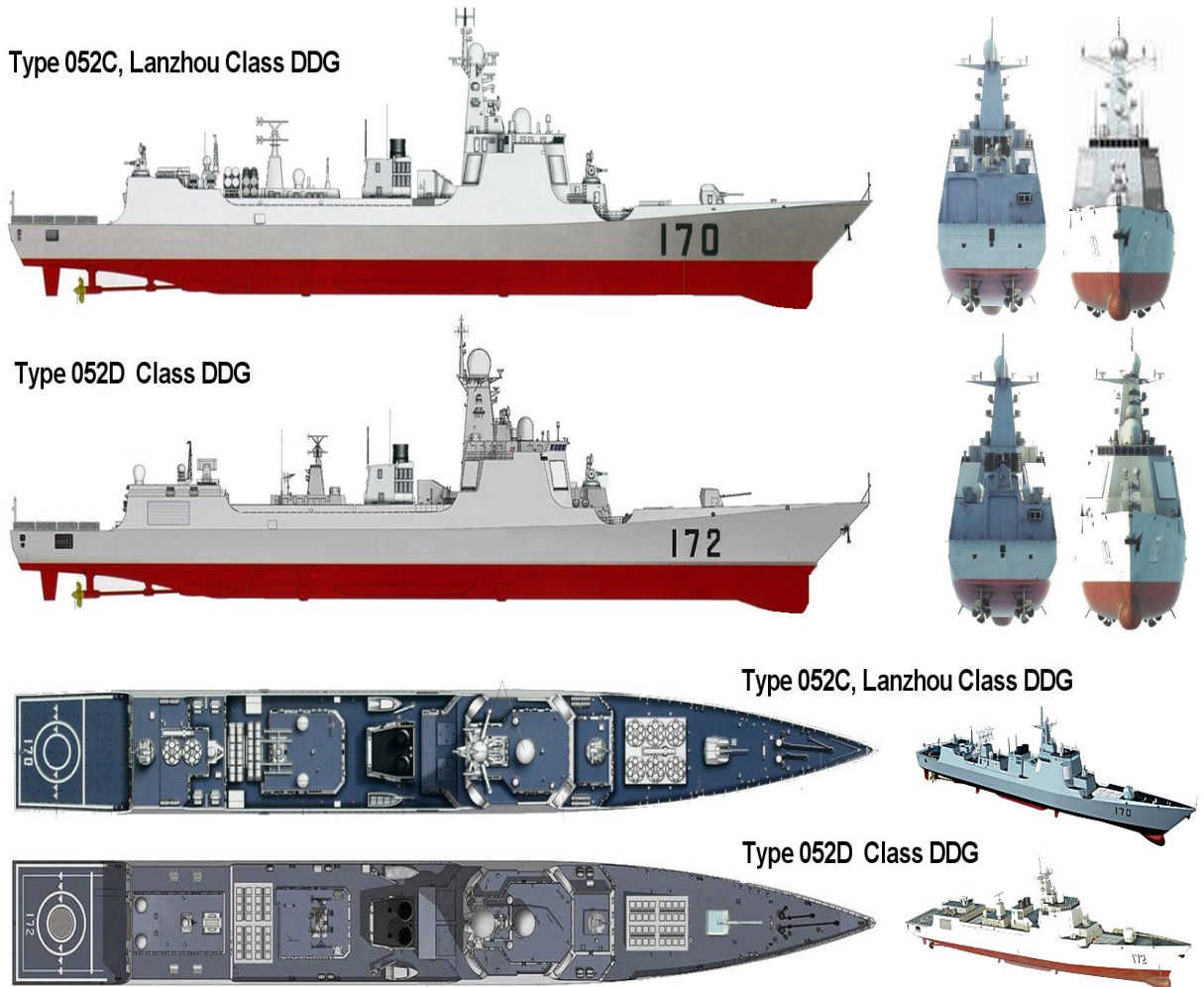


⁹⁶ Note Flying Shark tail art and retractable deck wheel chocks. Photo: Sino Defense <https://sinodefence.com/liaoning-varyag-class/j-15-21/>.

The air wing is, of course, the reason for having an aircraft carrier. Details regarding the composition of *Liaoning*'s air wing remain sketchy, probably because the PLAN itself has not made a final decision on them. Informed speculation suggests that the air wing will include twenty-four J-15 fighters, four to six ASW helicopters, four helicopters dedicated to airborne early warning (putting an air-search radar in the sky), and two helicopters dedicated to pilot rescue in case of an accident during flight operations.⁹⁶

⁹⁶ See <https://medium.com/war-is-boring/chinas-got-an-aircraft-carrier-what-about-the-air-wing-c95283bc0279>.

PLAN Aegis-like DDGs^o



^o Image from Pakistan Defense Forum <http://defence.pk/threads/type-055-destroyer-pak-navy-should-consider.391137/>.

The backbone of these “distant seas” forces will be the multi-mission *Luyang II/III* (types 052C and 052D) class destroyers (DDGs). They are likely to form the bulk of the warship escorts for *Liaoning*, any follow-on carriers, and expeditionary amphibious forces. These 8,000-ton destroyers are also formidable warships when operating independently; they are roughly the size of the U.S. DDG-51 class, and will

have phased-array radars and a long-range SAM system which provides the PLAN with its first credible *area* air-defense capability (the ability to defend more than just oneself). Because these ships are fitted with a multi-purpose 64-cell vertical launch system, they will also be able to load land-attack cruise missiles.

On paper, these are state-of-the-art multi-mission warships; the phased-array radar, also known as active electronically scanned array (AESA), is similar in technical approach to the radar in the USN-developed AEGIS combat system. When combined with long-range surface-to-air missiles housed in vertical launch cells, this radar system provides the ship with tremendous anti-air firepower—the ability to engage multiple targets simultaneously. These types of destroyers are expensive to build; only a few navies in the world can afford them. Japan, for example, has 6 and will have 8 by 2020—whereas China already has 10 built or being built and will likely have 18-20 by 2020.⁹⁷

If the Type 052D is intended as the backbone, the Type 054A guided-missile frigate (FFG) has for the past six years been the workhorse for the PLAN's far seas anti-piracy operations in the Gulf of Aden and its follow-on presence operations spanning the Indian Ocean littoral, Eastern Mediterranean, and Black Sea. At 4,100 tons, this large frigate is well armed, with long-range ASCMs, a 32-cell VLS launcher with medium-range SAMs, and a helicopter with hangar. Its ASW suite is likely to be improved with the addition of a towed array and variable-depth sonar that is already being fitted on China's Type 56 corvettes.⁹⁸ China operates 22 of these ships today, and by 2020 is expected to have approximately 25 Type 54A and around 6 of the improved Type 054B frigates in commission.

The PLAN has mastered the logistics of sustaining small task groups on distant stations. The existence of a state-owned enterprise that is in the logistics services business worldwide (China Ocean Shipping Company (COSCO)) enables China to enjoy built-in shore-based support structures at virtually all the major ports along the coastlines of the Pacific and Indian Oceans. When combined with its modern multi-product replenishment ships, which have developed significant skill in at-sea support, this has become a successful approach to logistic sustainment halfway

⁹⁷ ONI, *The PLA Navy*, pp. 15-16; Andrew Tate, "China Commissions second Type 052D DDG, pushes ahead with frigate, corvette launches," IHS Jane's 360, 21 July 2015, <http://www.janes.com/article/53139/china-commissions-second-type-052d-ddg-pushes-ahead-with-frigate-corvette-launches>; and Deagel.com, Type 052D, http://www.deagel.com/Destroyers-and-Cruisers/Type-052D_a001828004.aspx.

⁹⁸ Andrew Tate, "China commissions fourth ASW-capable Type 056 corvette," IHS Jane's 360, 11 May 2015, <http://www.janes.com/article/51341/china-commissions-fourth-asw-capable-type-056-corvette>. Andrew Tate, "More surface ships for the Chinese Navy," HIS Janes 360, 14 June 2016, <http://www.janes.com/article/61249/more-surface-ships-for-the-chinese-navy>

around the world from Chinese homeports. One of the main lessons the PLAN has learned from its anti-piracy deployments is the absolute importance of having enough multi-purpose replenishment ships. American experts have long opined that the most important indication of PLAN's out-of-area ambitions would be construction of replenishment ships. That is exactly what China is doing. The PLAN's inventory of 22,000-ton *Fuchi*-class AORs is being increased to seven today, and by 2020 it will probably have as many as 10 major replenishment ships—more than enough to support continuous far seas operations in addition to the counter-piracy patrols.⁹⁹

For years, PLAN amphibious shipping has focused on assessing the PLA's ability to invade Taiwan. While that contingency requires continued attention, the PLAN is in the process of assembling an impressive "far seas" expeditionary capability. It now has four 20,000-ton amphibious ships classified as LPDs (Type 071). Each ship can embark around 800 marines or soldiers, four air-cushion landing craft, and several helicopters. Forecasts suggest that even more of these ships, as well as perhaps a larger LHA-type ship, will be built.¹⁰⁰

China's submarine force has correctly been seen as focused on "near seas defense." As mentioned, nuclear-powered attack submarines (SSNs) are considered the most suitable type of submarine for long-range, long-endurance, out-of-area operations for any navy. The PLAN has long had a small SSN force, but in the past few years it has created the embryo of a modern SSN force with the commissioning of six *Shang*-class (Type 093/093G) boats. It is expected to introduce a new class that could result in a 2020 inventory of seven to eight SSNs—which would exceed the UK and French SSN forces, and place China third globally in operational nuclear-powered attack submarines, behind the United States and Russia.

⁹⁹ Bernard D. Cole, "China's navy expands its replenishment-at-sea capability," *The Interpreter*, 26 August 2015, <http://www.lowyinterpreter.org/post/2015/08/26/Chinas-Navy-Expands-Replenishment-Capability.aspx>.

¹⁰⁰ "Type 071 Landing Platform Dock (LPD), China," Naval Technology.com, <http://www.naval-technology.com/projects/type-071-landing-platform-dock-lpd>; Office of Naval Intelligence, *The PLA Navy: New Capabilities and Missions for the 21st Century*, Washington, D.C., p. 18.

Yuan-class SS (Type 039A/B)



Source: *USNI News*, August 31, 2015, <http://news.usni.org/2015/08/31/essay-inside-the-design-of-chinas-yuan-class-submarine>.

The PLAN's most modern conventionally powered submarine is the AIP-equipped *Yuan* class (Type 039A/B).¹⁰¹ It has been in series production since 2004, and as many as 20 are expected by 2020. Conventionally powered submarines would not normally be seen as associated with Chinese "open seas protection" missions, because of their important role in A2/AD; however, this large conventional submarine was sent to the Indian Ocean, calling at Karachi, Pakistan, in April 2015. This was the third submarine that the PLAN has deployed to the Indian Ocean in the past two years; the earlier deployments were by a Type 093G SSN and a *Song*-class conventional boat, much to the dismay of Indian observers.¹⁰² These deployments, a sort of proof-of-concept operation, suggest that PLAN submarines may also be earmarked for routine far seas operations, just like the Soviet Navy's submarines when they maintained a

¹⁰¹ Christopher P. Carlson, "Essay: Inside the Design of China's Yuan-class submarine," *USNI News*, August 31, 2015, <http://news.usni.org/2015/08/31/essay-inside-the-design-of-chinas-yuan-class-submarine>.

¹⁰² *DOD Annual Report 2015*, p. 19; and Rajat Pandit, "Chinese submarine in Karachi, India alarmed," *The Times of India*, June, 27, 2015, <http://timesofindia.indiatimes.com/india/Chinese-submarine-in-Karachi-India-alarmed/articleshow/47845930.cms>.

routine presence in the Northern Arabian Sea during the final decades of the Cold War.¹⁰³

It is important to emphasize how essential seven-plus years of uninterrupted anti-piracy operations in the Arabian Sea have been in teaching the PLAN how to conduct distant seas operations. One reason it has learned so quickly is that the anti-piracy patrols are a real-world “maritime laboratory,” which has allowed it to operate with ships from all the other great global navies, and closely observe and adopt what it considered best practices.¹⁰⁴

Looking ahead: World’s second-largest blue-water navy by 2020

To appreciate the magnitude of PLAN’s development of “open ocean protection” capabilities, it is useful to compare them to those of the other “great” navies of the world. Table 1 is a forecast that compares ships with the capabilities necessary to conduct sustained deployments very far from home waters. This specifically compares the PLA Navy classes of ships discussed in the preceding section, with ships of similar capabilities from other navies routinely operating in far seas. This comparison is *not* intended to be an order-of-battle inventory where every ship of every class is counted; rather, it is an attempt to compare Chinese “far seas” warships to other nations’ “far seas” warships, projected to around the year 2020.

¹⁰³ An authoritative discussion of Soviet naval presence (32 ships, including submarines, in early 1978) in the Northern Arabian Sea/ Gulf of Aden region of the Indian Ocean is given by Mark A. Carolla, “The Indian Ocean Squadron,” in Bruce and Susan Watson, eds., *The Soviet Navy: Strengths and Liabilities* (Boulder: Westview Press, 1986), pp. 241-46.

¹⁰⁴ Michael McDevitt, “PLA Naval Exercises with International Partners,” in Roy Kamphausen et al., *Learning by Doing: The PLA Trains at Home and Abroad*, Strategic Studies Institute, U.S. Army War College, Carlisle, PA, 2012, <http://www.strategicstudiesinstitute.army.mil/pdffiles/pub1135.pdf>; and Andrew S. Erickson and Austin M. Strange, *No Substitute for Experience: Chinese Antipiracy Operations in the Gulf of Aden*, U.S. Naval War College, China Maritime Studies No. 10, Naval War College Press, November 2013.

Table 1. Far seas navies' major ships ca. 2020^a

	PLA Navy	UK	France	Japan	India	Russia
Carriers	2	2	1	0	2	1
Aegis-like destroyer	18-20	6-8	2	8	5-6	0
Modern multi-mission frigate	30-32	1-2	6 (FREMM)	4	3-10	9-11
Large amphibious	6-7	6	3	3	0-3	0
AOR (combat logistics force)	8-10	3	4	5	0-3	4 very old
SSN	6-7	7	6	0	1-2	8-9 +6 SSGN
SS (AIP)	20			22	6	9-11
SSBN	5-6	4	4	0	1-2	10-12

a. Aegis-like DDGs include the UK Type 045 *Daring* class, the French Horizon class, the Japanese *Kongo* and *Atago* classes, and the Indian *Kolkata* and *Visakhapatnam* classes.

For perspective, Table 2 also compares the PLAN classes that have been discussed with similar classes in the U.S. Navy. Again, this is *not* an “order of battle” ship-counting exercise but an attempt to show that while the PLAN’s far seas capabilities are very impressive when measured against those of the rest of the world’s navies, there is still no comparison when measured against America’s naval forces, most of which are inherently “far seas” capable. But, all of China’s ships are homeported in East Asia whereas most of the U.S. Navy is homeported thousands of miles away. There is little doubt that by the beginning of the next decade the PLAN will have a substantial capability advantage in East Asia. When one combines the forces of Japan and the U.S. Seventh Fleet, a rough equivalency in “far seas” ships will exist. However, a contribution from Japan is not assured in contingencies when the security of Japan is not directly threatened.

Table 2. Major far seas ships ca. 2020, PLAN vs. USN

	USN Overall	PLAN Far Seas	US 7 th Fleet	Japan
Carriers	11	2	1 to 1.5	0
Aegis-like destroyer	88-91	18-20	10	8
Frigate (FFG)	0 ^a	30-32	0	4
Large amphibious ship	33	6-8	3-4	3
AOR (replenishment at sea)	30 (Combat Logistics Force-CLF)	8	rotational	5
SSN	51+4 SSGN	6-7	4+rotational	0
Modern SS (AIP)	0	20	0	22
SSBN	14	5-6	0	0

a. The USN Littoral Combat Ship (LCS) or its follow-on frigate adaptation is not an equivalent of any modern multi-mission frigates found in the world's navies—including, in this case, to the PLAN type 054A/B.

Preliminary judgments

China's shipbuilding industry has unquestionably demonstrated the ability to produce modern warships and submarines, while at the same time continuing to lead the world in total shipbuilding output. It is also true that virtually all of the PLAN ships discussed in the preceding paragraphs have been commissioned over the last decade; the obvious conclusion is that China's "open ocean protection" mission will be executed by a new and modern far seas force. This force, well balanced in capabilities and ship classes, in many ways already resembles a "mini-me" of America's navy—with the notable exception of sea-based airpower, and that is in the offing.

The question is: Will Beijing employ this microcosm of the USN in the same way that Washington uses its navy? So far, trends are moving in that direction. Like the USN, the PLAN already conducts the whole range of activities associated with what is normally characterized as "peacetime presence": naval diplomacy, emergency evacuations, disaster relief, and exercises with friendly navies. What has not been seen is traditional power projection—yet.

China is putting into place power projection components—carrier air, land attack cruise missiles on multi-mission destroyers, and amphibious forces—that, when assembled as a task force, are very credible. By 2020 China will have the second-

largest modern amphibious capability in the world (after the United States), and potentially will be able to embark between 5,000-6,000 marines for operations anywhere in the world. When combined with modern destroyers as escorts and an aircraft carrier to provide air defense, China will have a distant-seas power-projection capability for the first time since Admiral Zheng He's last voyage (1431-33).¹⁰⁵

In fact, when one counts the number and variety of warships that the PLAN is likely to have in commission in just a few years, it is not a stretch to argue that by around 2020, China will have the second most capable "far seas" navy in the world. Certainly in terms of numbers of relevant ship classes, it will be in that position. Whether China deliberately set out to achieve this position as soon as 2020 is not known; its impending "ranking" among the world's great navies is greatly facilitated by fact that while the PLAN is expanding, virtually all of the other traditional maritime powers (India is a notable exception) have downsized and reduced major warship production.

In short, the PLAN is not only a formidable "near seas" challenge; it is on the cusp of becoming a well-rounded (balanced) and very capable far seas navy. Significantly, it now has an official green light to focus on an "open seas protection" mission that includes combat. The way it trains for this mission should provide insights on how China's far seas navy will be employed.

Uncertainties

It is also necessary to address the many questions that these judgments raise. First and foremost, as any professional naval planner would ask: How good are these folks? Are the PLAN operators competent? Will PLAN combat systems operate as advertised? What about China's unique consensus-based dual-command system, wherein the ship's commanding officer and political officer share coequal positions? Will it work in the stress of combat, when decisions must be made quickly?¹⁰⁶ This

¹⁰⁵ For the most accurate account of Zheng He's "power projection" voyages, see Edward Dreyer, *Zheng He: China and the Oceans in the Early Ming Dynasty, 1405-1433* (New York: Pearson, 2006).

¹⁰⁶ Based on a conversation with Dennis Blasko, an acknowledged expert on PLA organizational issues, technically (by regulation) the commander and the political officer are jointly responsible for their unit. The commander is in charge of tactical considerations, while the political officer is in charge of political-related work, which can overlap with tactics. In theory, the commander should be obeyed in times of emergency/crisis/combat when he gives a tactical order without the political officer having to sign on. However, if time permits, they would prefer to have a group meeting to settle important matters and establish consensus. In practice, this shared responsibility concept is driven by personalities (how the commander and

question is particularly important since success or failure in a surface engagement has historically been dictated by who wins the “battle of the first salvo.”¹⁰⁷

The open-source answers to these questions are more conjecture than fact, but the track record of seven-plus years of counter-piracy deployments suggests that its ships are very reliable during peacetime operations. The PLAN has learned to be remarkably adaptable over the years that these deployments have occurred. Significantly, there are now seven-plus-years’ worth of officers, including admirals, who have experienced extended deployed operations. We also have insights into the growing sophistication of PLAN warfare-oriented training that is taking place in open ocean environments. A paper written by the former assistant naval attaché in Beijing, Captain Chris Sharman, USN, maps the growing complexity of PLAN at-sea training and makes it clear that China’s navy is working hard to improve.¹⁰⁸

Perhaps the biggest uncertainty is: How large will the “far seas” PLAN become? If one takes seriously the words in the 18th Party Work report—“Building strong national defense and powerful armed forces that are *commensurate with China’s international standing* and meet the needs of its security and development interests is a strategic task of China’s modernization drive...”— it could become very large indeed.¹⁰⁹

To this point, the “far seas” warships/CLF/submarines discussed above total between 95 and 104 warships; if one adds to this number the 175-odd warships/submarines commissioned since 2000 that are not really suitable for “far seas” operations the total PLAN warship/CLF/submarine strength circa 2020 is in the range of 270-279.¹¹⁰ As of this writing the U.S. Navy is projected to have force structure of around 260

political officer get along), plus the influence (or lack thereof) of the ship’s Party committee (senior leaders). While naval officers raised in the Western maritime tradition may be aghast at such a system, it is important to keep in mind that this is the only organization PLAN officers have known. They have learned to make it work during peacetime far seas deployments.

¹⁰⁷ “To achieve victory one must attack effectively first.” Captain Wayne Hughes, USN (retired), *Fleet Tactics: Theory and Practice* (Annapolis: Naval Institute Press, 1986), p. 146.

¹⁰⁸ Christopher H. Sharman, *China Moves Out: Stepping Stones Toward a New Maritime Strategy*, China Strategic Perspectives No. 9, Center for the Study of Chinese Military Affairs, Institute for National Security Studies, National Defense University, Washington, DC, April 2015, p. 37, <http://inss.ndu.edu/Portals/68/Documents/stratperspective/china/ChinaPerspectives-9.pdf>.

¹⁰⁹ “Full text of Hu Jintao’s Report at the 18th Party Congress,” Xinhua, 17 November 2012, http://news.xinhuanet.com/english/special/18cpcnc/2012-11/17/c_131981259.htm.

¹¹⁰ This number is the sum of: 9 older DDGs, 11 older FFGs, 25 older conventional submarines, 60 Houbai Fast Attack Craft, 29 LSTs, and 41 of the new type 056 corvettes. Here, “older” means commissioned since 2000 but no longer in production because they have been succeeded by new classes. CLF is the USN term for underway replenishment ships. It stands for “combat logistics force.”

similar classes of ships in 2020.¹¹¹ While the U.S. number includes many more high-end ships, the number of combatants the PLAN would be able to muster for a defensive campaign in China's near seas is very impressive.

Several years ago, in a paper written for a Naval War College conference, I asserted that China was not trying to replicate the Imperial Japanese Navy and build a force aimed at having a climactic battle for sea control somewhere in the Philippine Sea. I am not so sure today, because the image of an East Asian navy as capable as the IJN was in 1941 no longer seems incredible. Recall that the IJN on the eve of Pearl Harbor was a formidable force: 10 battleships; 12 aircraft carriers; 18 heavy cruisers; 20 light cruisers; 126 destroyers; and 68 submarines. Could the PLAN over the next decade or two become as imposing?¹¹²

Implications for the United States

Seeing Chinese warships in the Indian Ocean and Mediterranean's far reaches will become routine. U.S. combatant commanders responsible for those regions may view Chinese naval presence as welcome—e.g., as anti-piracy patrols. There may be far more opportunities for USN-PLAN cooperation because they are far removed from Chinese home waters where sovereignty and maritime claim disputes create a different maritime ambiance. That could change, however, if, for example, Sino-Russian naval activities in the Eastern Mediterranean and Black Sea assume the appearance of being counter to American interests.

Certainly, should the PLAN begin to maintain a routine naval presence in the Indian Ocean in addition to its anti-piracy operations, such an increase in presence seems likely to increase Indian apprehension regarding long-term Chinese objectives along the Indian Ocean littoral. From Delhi's point of view, that could increase the incentives for an even closer Indian-American naval relationship. The pace of that relationship will naturally be dictated by the overall state of Sino-Indian relations; however, it is conceivable that an increase in PLAN presence, especially submarines, could result in some sort of a combined Indo-U.S. ASW organization dedicated to keeping track of in-region PLAN submarines.

¹¹¹ The USN total is reached by adding to the 231 to 234 ships listed in table 2 above the 28 Littoral Combat Ships (LCS) that should be in inventory around 2020.

¹¹² David C. Evans and Mark R. Peattie, *Kaigun: Strategy, Tactics and Technology in the Imperial Japanese Navy, 1887-1941* (Annapolis: U.S. Naval Institute Press, 1997).

The question of whether the PLAN would create bases along the Indian Ocean littoral has been an issue of continued debate among sinologists. That debate is over. The PLAN is actively engaged in what could be characterized as a “place *and* base” approach in the Indian Ocean region because it will be necessary to support “open seas protection” deployments. In fact, it seems likely that once China’s leadership decided to become serious about the navy’s role in protecting Chinese interests and citizens abroad, it was necessary to back away from its long-standing policy of decrying overseas bases as a feature of hegemonic behavior. Hence we now have the spectacle of Beijing rationalizing its logistics “outposts” in the Western portion of the Indian Ocean as contributing to regional security and development—as well they might be. Construction of a Chinese facility in Djibouti has already started,¹¹³ and more bases could be in the offing. Recently, when asked about Djibouti, China’s foreign minister indicated that China’s intent was to fulfill international obligations to protect shipping:

We are willing to, in accordance with objective needs, responding to the wishes of host nations and in regions where China's interests are concentrated, try out the construction of some infrastructure facilities and support facilities; I believe that this is not only fair and reasonable but also accords with international practice.¹¹⁴

Clearly, Gwadar, Pakistan, is already a “place” that could become a base.¹¹⁵

One implication for Washington of potential “open seas protection” task forces routinely operating in the western Indian Ocean is that U.S. authorities can no longer assume unencumbered freedom to posture U.S. naval forces off Middle East and East African hotspots if Chinese interests are involved and differ from Washington’s. It is possible that both governments would elect to dispatch naval forces to the water offshore of the country in question. The best-known historic example of this sort of intermingled naval presence occurred during the 1973 Arab-Israeli War, when the

¹¹³ Ben Blanchard, “China launches charm offensive for overseas naval base,” Reuters, March 23, 2016, <http://www.reuters.com/article/us-china-djibouti-idUSKCN0WP300>; John Lee, “China Comes to Djibouti: Why Washington Should be Worried,” *Foreign Affairs Snapshot*, April 23, 2015, <https://www.foreignaffairs.com/articles/east-africa/2015-04-23/china-comes-djibouti>.

¹¹⁴ Ben Blanchard, “China hints more bases on way after Djibouti,” CANMUA Net, March 8, 2016, <http://canmua.net/world/china-hints-more-bases-on-way-514571.html>.

¹¹⁵ Saibal Dasgupta, “China gets 40-year management rights on Pak’s Gwadar port, access to Arabian Sea,” *The Times of India*, April 14, 2015, <http://timesofindia.indiatimes.com/world/china/China-gets-40-year-management-rights-on-Paks-Gwadar-port-and-access-to-Arabian-Sea/articleshow/46923252.cms>, and Turlock Mooney, “Pakistan moves to secure more One Belt, One Road investment,” IHS *Fairplay*, 25 May 2016, <http://fairplay.ihs.com/ports/article/4268896/pakistan-moves-to-secure-more-investment-under-china%E2%80%99s-one-belt-one-road-program>.

Soviets deployed more than 95 ships to the Eastern Mediterranean to challenge the U.S. Sixth Fleet's sea control in the area.¹¹⁶

With the growth of the PLAN nuclear-powered submarine force, the United States may face the challenge of keeping track of far-seas-deployed PLAN submarines that could be deployed on missions close to U.S. territory—especially in U.S. EEZs. During the Cold War, a USN at least twice the size of today's navy, with almost a third of its structure dedicated to the primary mission of ASW, invested considerable operational effort into keeping track of Soviet submarines operating near American coasts. The substantial inventory in primary-mission ASW forces that was a hallmark of the Cold War era U.S. Navy no longer exists today.

Finally, once the reality of a large Chinese navy that routinely operates worldwide sinks into world consciousness, the image of a PLAN "global" navy will over time attenuate perceptions of American power, especially in maritime regions where only the USN or its friends have operated freely since the end of the Cold War. As Xinhua reported on 12 May 2015:

This is the first time that [China] has conducted naval exercises in the Mediterranean Sea. It is a new challenge for the Chinese Navy. It also showed that [China] is expanding its national interests and security interests to waters further away from China. People should get used to seeing China's warships out in the sea.¹¹⁷

Since 1945, the United States has been able to employ its naval-centered expeditionary capabilities in the pursuit of national interests on the far shores of the Indian and Pacific Oceans with little or no concern regarding the U.S. Navy's ability to arrive and stay wherever it thought best, for as long as it thought best. A credible naval opponent was a concern during certain periods of the Cold War in the Eastern Mediterranean, but in East Asia and in the Arabian Sea it was never a serious inhibiting concern for any U.S. administration. In the not too distant future, this policy flexibility will be open to question—a new strategic environment is just around the corner.

¹¹⁶ Bruce W. Watson, *Red Navy at Sea: Soviet Naval Operations on the High Seas, 1956-1980* (Boulder: Westview Press, 1982), p. 88.

¹¹⁷ Xinhua, May 12, 2015, http://news.xinhuanet.com/world/2015-05/12/c_127791919.htm.

Chapter 4: The China Coast Guard— Enforcing China’s Maritime Rights and Interests¹¹⁸

Ryan Martinson

Introduction

Soon after the 18th Party Congress, China’s State Oceanic Administration (SOA) director Liu Cigui published an article in which he outlined his understanding of the new “maritime power” (*haiyang qiangguo*) concept. To become a maritime power, China would need to:

Establish maritime administration and maritime law enforcement systems that are authoritative and highly efficient, have fairly concentrated functions, and have uniform responsibilities; that can perform overall planning for both internally oriented administrative law enforcement and externally oriented rights protection law enforcement; and that can provide organizational support for efforts to build China into a maritime power.¹¹⁹

Progress towards this objective began only a few months after the 18th Party Congress. In March 2013, the National People’s Congress (NPC) passed legislation to re-purpose the SOA, empowering it to oversee an entirely new maritime law enforcement entity, to be called the China Coast Guard Bureau (*zhongguo haijingju*).

¹¹⁸ This is an abridged version of a longer paper done for this project by Mr. Ryan Martinson, a scholar at the U.S. Naval War College’s China Maritime Studies Institute (CMSI). The complete version can be found at https://www.cna.org/cna_files/pdf/Creation-China-Coast-Guard.pdf.

¹¹⁹ Liu Cigui, “Some Considerations on Building China into a Maritime Power” (*Guanyu Jianshe Haiyang Qiangguo De Ruogan Sikao*), State Oceanic Administration Website, 26 November 2012, http://www.soa.gov.cn/xw/ldhd/lyx/201212/t20121204_19016.html.

The new agency would be formed by “integrating” (*zhenghe*) four of China’s heretofore independent organizations associated with maritime law enforcement: the State Oceanic Administration’s own China Marine Surveillance (CMS); the Department of Agriculture’s China Fisheries Law Enforcement (FLEC); the Ministry of Public Security’s Border Defense Coast Guard; and the Maritime Anti-Smuggling Police of the General Administration of Customs.¹²⁰ On July 22, 2013, a new “China Coast Guard” (CCG) sign was installed at SOA headquarters in Beijing, officially inaugurating the new agency.¹²¹

The China Coast Guard and maritime rights protection

China’s coast guard plays an important role in fulfilling China’s goal of becoming a maritime power. Above all, its mission is to “safeguard maritime rights and interests.” In the words of the head of the SOA East China Sea Bureau, Liu Kefu, rights protection is a “precondition” for becoming a maritime power. That is, China cannot do all the things it wants to do in its waters until it first has full control over them.¹²²

In authoritative texts, the CCG is regarded as China’s “primary instrument of rights protection in peacetime.”¹²³ It performs four primary rights protection missions:

- Sail through and linger in disputed waters to bolster a claim of ownership.
- Track, monitor, and sometimes obstruct foreign naval vessels operating in China’s EEZ.

¹²⁰ The Ministry of Transport, which manages two maritime law enforcement agencies, was not integrated into the coast guard.

¹²¹ “The Reconstituted SOA and the China Coast Guard Have Been Set Up” (*Zhongzu Hou De Guojia Haiyangju Guapai Zhongguo Haijingju Tongshi Guapai*), The Central People’s Government of the PRC Website, 22 July 2013, http://www.gov.cn/jrzg/2013-07/22/content_2452257.htm.

¹²² Liu Kefu, “Using Three Types of Protective Power to Promote Construction of Maritime Power” (*Yi Sanzhong Baohu Lidu Tuijin Haiyang Qiangguo Jianshe*), *China Ocean News*, 17 September 2013, p. 1, <http://epaper.oceanol.com/shtml/zghyb/20130917/35090.shtml>.

¹²³ Duan Zhaoxian, “On the Strategic Objectives of Turning China into a Maritime Power” (*Lun Jianshe Haiyang Qiangguo de Zhanlue Mubiao*), *China Military Science (Zhongguo Junshi Kexue)*, 2013/3.

- Ensure the security of Chinese state and private vessels operating in disputed waters.
- Deny foreign use of Chinese-claimed waters.

Official and quasi-official Chinese texts identify “administrative control” (*guankong*) as the desired end state of China’s rights protection activities. By this, they mean imposing the Chinese legal order over disputed waters. The “12th Five Year Plan for Maritime Development,” for instance, calls for China to improve its capacity to achieve administrative control over jurisdictional waters.¹²⁴ At the 2013 National Maritime Work Meeting, Xu Shaoshi, head of the Ministry of Land and Resources, said, “China’s rights protection struggle needs to be forceful and effective, and China must do more to strengthen its capacity to exercise administrative control over the sea.”¹²⁵ This was not simply a conceptual judgment; external events provided an incentive for moving forward on the creation of a legitimate coast guard, with the Scarborough Reef and Senkaku Island conflicts “sounding the bell.”¹²⁶

The “new” coast guard in action

Prior to the reform, each agency had its own command structure and its own command/control system. As a result, coordination was poor and services often worked at cross purposes. A China Coast Guard Command Center was probably set up sometime in early 2014. In March, the command center coordinated coast guard efforts to locate the lost Malaysian Airlines flight 370.¹²⁷ Chinese media covering the story interviewed a People’s Armed Police Force (PAP) senior captain, Zhang Chunru, who was the command center duty officer (*zhibanzhang*). He indicated that the

¹²⁴ “12th Five Year Plan for Maritime Development” (*Guojia Haiyang Shiye Fazhan Shi'er Wu Guihua*), 11 April 2013, http://www.soa.gov.cn/zwgk/fwjgwywj/shxzfg/201304/t20130411_24765.html.

¹²⁵ Huang Ran, “Central Leadership Make Important Instructions Regarding the Opening of the Meeting and Maritime Work” (*Zhongyang Lingdao Dui Dahui Zhaokai Ji Haiyang Gongzuo Zuo Zhongyao Pishi*), *China Ocean News*, 11 January 2013, p. 1, <http://epaper.oceanol.com/shtml/zghyb/20130111/30660.shtml>.

¹²⁶ “Our Recollections of 2012” (*Pandian 2012 Women De Jiyi*), *China Ocean News*, 4 January 2013, p. 3.

¹²⁷ Cui Jingtao, “China Coast Guard Ship Begins Search and Rescue Work in Area Where Malaysian Passenger Jet Lost” (*Zhongguo Haijingchuan Zai Mahang Keji Shilian Haiyu Kaizhan Soujiu Gongzuo*), *China Ocean News*, 10 March 2014, p. 1.

command center had dispatched CCG 3411, a former China Fisheries Law Enforcement ship, to the southern Indian Ocean to search for wreckage.¹²⁸

According to a very important *Southern Weekend* article published in October 2014, deployment tasking now comes directly to each individual cutter from the China Coast Guard Bureau, circumventing unit commanders. Orders must be acted on immediately. This, explained a former Fisheries Law Enforcement officer, is a huge improvement over the past practice.¹²⁹

The command center has the power and ability to dictate deployments to individual ships in front-line national-level units and has direct communications with a large number of oceangoing cutters. At the very least, it has direct communications with former CMS ships and new ships delivered since the creation of the China Coast Guard. Given pre-existing command-control systems in the other services, it will take some time before the command center is able to directly communicate with individual former Fisheries Law Enforcement and Border Defense Coast Guard ships.

Material expansion of the China Coast Guard

The material capabilities of the China Coast Guard constitute the other set of factors affecting its performance as a rights protection force. These range from shore-based support infrastructure, to space-based communications and surveillance assets.

Oceangoing cutters

Since its creation, the China Coast Guard has commissioned dozens of new oceangoing rights protection (*weiquan*) cutters, i.e., ships displacing at least 500 metric tons that regularly perform rights protection operations. They include both

¹²⁸ See CCTV13, “China Coast Guard Ship Discovers Two Oil Slicks and Can Inspect as Soon as Within One Day” (*Zhongguo Haijingchuan Faxian Liangtiao Jiaoda Youwudai Zuikuai Yi Tian Neng Jianchu*), http://news.ifeng.com/world/special/malaixiyakejishilian/content-4/detail_2014_03/10/34620064_0.shtml.

¹²⁹ The FLE officer, Zhao Jiangtao, explains, “The efficiency of our law enforcement is much better than before. Now when tasks are handed down we have to put to sea within 24 hours. And now the China Coast Guard Department directly communicates tasking to each individual ship. The types of tasking, the time requirements...they’re all very specific.” See Liu Bin, “One Year Retrospective after the Creation of the China Coast Guard Bureau: Forces No Longer Operate on their Own” (*Zhongguo Haijingju Zujian Yi Nian Guancha: Zhixing Renwu Bu ZaiDanda Dudou Le*), *Southern Weekend (Nanfang Zhoumo)*, 9 October 2014, <http://www.infzm.com/content/104611>.

provincial-level and national-level cutters. Not only is the CCG adding many new ships, it is also building much larger ships—thereby boosting the average displacement across the fleet. Big ships, of course, have better endurance and are better able to handle rough seas, enabling them to remain on station much longer. They are also more capable of intimidating the state and private vessels of other disputants.

By the end of 2014, the China Coast Guard had taken delivery of 13 vessels displacing more than 3,000 metric tons. The coast guard has subsequently commissioned two 10,000 ton cutters, the world's largest: CCG 2901, responsible for the ECS; and CCG 3901, responsible for operations in the SCS.

The CCG cutter *Haijing 3901*



Source: Chinese internet via <http://military.cnr.cn>.

During this same time period (July 2013-December 2014), provincial-level maritime law enforcement units received 21 new ships displacing between 1,000 and 2,000

metric tons. These ships are largely the fruits of a 36-ship CMS construction plan announced in late 2010.¹³⁰

At the time of this writing, the China Coast Guard commands at least 95 ships displacing more than 1,000 metric tons, of which at least 24 displace more than 3,000 metric tons. The CCG also has another 110 smaller cutters (500-1,000 metric tons). It is far and away the largest coast guard in the world. (By comparison, the U.S. Coast Guard has 38 cutters that displace over 1,000 tons.) This inventory is the most tangible indication of China's intention to maintain a world-class coast guard, which will be able to "enforce" China's rights in all of its claimed sovereign maritime regions.

While some of the new ships are generally not armed in the traditional sense, they are equipped with advanced non-lethal weaponry, including water cannons and sirens. For example, CMS 7008, which joined Zhejiang province's CMS contingent in September 2014, has water cannons capable of shooting jets of seawater out to 100 meters and sirens capable of producing deafening noise.¹³¹

Aircraft and surveillance

Fixed- and rotary-wing aircraft are central to first-class coast guards. However, the China Coast Guard has received very few new aircraft since it was founded. It still primarily relies on the nine Y-12 aircraft and three helicopters operated by CMS. Guangdong province did take delivery of a single helicopter in 2013, making it the only provincial-level maritime law enforcement agency with an aviation asset.¹³²

¹³⁰ Even though provincial-level ships are not officially a part of the China Coast Guard, they are subject to China Coast Guard command and some of them are painted with China Coast Guard colors and pennant numbers.

¹³¹ The Fujian cutter CMS 8002 is similarly equipped. Its sirens can reach 153 decibels. See Zhao Ning, "Demystifying 'CMS 8002'" (*Jiemi 'Haijian 8002' Chuan*), *China Ocean News*, 15 March 2013, p. 3. See also Ryan Martinson, "Here Comes China's Great White Fleet," *The National Interest*, 1 October 2014, <http://nationalinterest.org/feature/here-comes-china%E2%80%99s-great-white-fleet-11383>. This is not to say that CCG ships are not armed. Some are, including several of the former PLAN frigates that were transferred to the CCG. They retain their deck guns, as do cutters absorbed into the CCG from the Ministry of Public Security's Border Defense Coast Guard, and the Maritime Anti-Smuggling Police of the General Administration of Customs. Like virtually all other coast guards around the world, including the USCG, the Chinese CG can be expected to eventually arm all of their vessels with either crew-served weapons or larger-caliber deck guns.

¹³² "Promote Strong Maritime Province Construction and Create New Development Strengths" (*Tuijin Haiyang Qiangsheng Jianshe Zengchuang Fazhan Xin Youshi*), *China Ocean News*, 22 July 2014, p. 106.

Former CMS units operate some small unmanned aerial vehicles (UAVs), probably with limited utility beyond the inner seas.¹³³

China has also taken steps to improve the ability of civilian maritime agencies to track developments at sea by using space-, land-, and sea-based surveillance systems. In 2008, the SOA began a major program to improve surveillance on remote islands (*bianyuan dao*) and their adjacent waters. This program involved a range of technologies, including satellites, buoys, and undersea sensors. The SOA began trials in the years leading up to the reform, and these platforms are probably already providing data to the sea services.¹³⁴

Conclusion

The China Coast Guard defends and advances China's position in its maritime disputes, performing what Chinese officials call "safeguarding China's maritime rights and interests." It was created to improve Chinese maritime law enforcement's capacity to serve this function. The rights protection operations of the China Coast Guard range from mere presence in disputed waters (a mission that might be termed "declaratory law enforcement"), to actual efforts to impose Chinese law on foreign mariners (actions that may run the gamut from preventing "illegal" use of the sea, to protecting Chinese economic and other activities in disputed waters). Success is primarily a function of the capacity to be present at sea in areas that China considers its own. That requires both ships and organizational acumen, i.e., the ability of an agency to harness the full potential of its available assets and personnel. In the 18 months since its creation, the China Coast Guard has taken delivery of dozens of new rights protection cutters. Particularly remarkable is the number of large-displacement ships added to its inventory that will increase endurance and result in greater on-station time.¹³⁵ The China Coast Guard still lacks the aviation assets and

¹³³ Shandong Province, for instance, operates three small UAVs, for which it paid 6 million RMB. See Wang Yongwei, "Shandong CMS Equipment Construction Achieves a New Breakthrough" (*Shandong Sheng Haijian Zhuangbei Jianshe Shixian Xin Tupo*), *China Ocean News*, 21 June 2013, p. 2, <http://epaper.oceanol.com/shtml/zgthyb/20130621/33408.shtml>.

¹³⁴ Jiang Huarong, "Many Types of Technology Allow for Monitoring and Control Over Remote Islands" (*Duoxiang Jishu Jicheng Shixian Bianyuan Dao Jiankong*), *China Ocean News*, 23 May 2013, p. 3, <http://epaper.oceanol.com/shtml/zgthyb/20130523/32928.shtml>.

¹³⁵ In 2012, the fleet was greatly overtaxed, with the most important rights-protection cutters remaining at sea for over 200 days per year. Having more ships enables overtaxed ships to receive neglected maintenance, and allows ships time to conduct training, something that fell by the wayside in 2012 and into 2013. See Lv Ning, "Strengthen Construction to Ensure Safe Operation of CMS Ships" (*Jiaqiang Duiwu Jianshe Quebao Haijian Chuan Anquan Yunxing*), *China Ocean News*, 15 May 2013, p. 3.

capabilities that characterize world-class coast guards. This means that there are grave limits to its capacity to perform important coast guard missions. Newly built airfields in the Spratly chain will be able to partly offset the shortage of long-range aircraft, because shorter-range coast guard aircraft will be based on the newly constructed outposts.

The China Coast Guard has unquestionably achieved important improvements in one very important respect. The new system has fostered much improved coordination between rights protection forces. This is largely an outcome of the creation of the China Coast Guard Command Center. Whereas in the past, CMS and Fisheries Law Enforcement forces operated through their respective command bureaucracies, now they deploy on the basis of a single chain of command, led by PAP officers at the Beijing headquarters. These improvements have no doubt enhanced presence at sea.

While the last 18 months have witnessed impressive progress in the capacity of the China Coast Guard to maintain presence in disputed waters in the East China Sea and the South China Sea, SOA has a lot of work yet to do to complete the organizational integration outlined in the Three Decisions Plan of 2013. The next steps will be to re-orient existing facilities and close old ones; institute a unified personnel system; and train Chinese coast guardsmen to agency-wide standards, policies, and practices. Some of these things probably cannot take place until China totally revises and revamps its patchwork of maritime law.¹³⁶ Moreover, SOA personnel have publicly lamented the obstructionism of other ministries involved in the reform.¹³⁷

But there is reason to believe that the reform will succeed, notwithstanding the complexity and difficulty of the project. It is now bound up with the maritime power goal, which is itself entwined with China's dream of national rejuvenation, both of which Xi Jinping has fully invested in. Chinese commentators are correct when they state that China cannot be considered a maritime power until it operates a truly advanced maritime law enforcement force.

¹³⁶ On China's challenges with domestic maritime law, see Yu Zhirong, "The Time is Now to Accelerate Construction of Maritime Rights Protection Rule of Law" (*Jiakuai Haiyang Weiquan Fazhi Jianshe Ke Bu Ronghuan*, *China Ocean News*, 28 July 2014, p. 3. Also, Luo Manli and Li Fang, "A Word on the Need to Pass Legislation for a Maritime Basic Law" (*Wei Haiyang Jibenfa Lifa Jin Yi Yan*), *China Ocean News*, 4 September 2014, p. 3.

¹³⁷ See, for instance, Wang Quanming, "Work Hard to Implement Comprehensive Management of the Sea" (*Nuli Shishi Hao Haiyang Zonghe Guanli*), *China Ocean News*, 18 August 2014, p. 3.

Chinese commentators, some at high levels of authority, continue to claim that China's maritime law enforcement fleet is inadequate to the task at hand, despite the fact that the China Coast Guard already boasts the world's largest fleet.¹³⁸

U.S. Department of Defense analysts predict that the number of China Coast Guard ships will continue to grow over the coming years.¹³⁹ A recent publication from the U.S. Navy's Office of Naval Intelligence (ONI) highlights how China has been very effective in using "white hull" ships as front line forces in incidents with the Philippines (Scarborough Shoal and Second Thomas Shoal), with Japan (the Senkaku/Diaoyu dispute), and with Vietnam (the HY 981 incident).

The ONI report points out that China prefers to use its coast guard as the primary agency to enforce its maritime rights and interests. By keeping the PLA Navy in the background, China hopes to limit the escalation potential of maritime confrontations in the Yellow, East China, and South China Seas.¹⁴⁰ This strategy has been successful so far, and—given the continued growth of China's coast guard, along with the newly established basing facilities in the Spratlys—it is safe to predict that a Chinese coast guard presence in the southern portion of the South China Sea will be ubiquitous.

¹³⁸ As late as March 2014, RADM Zhang Zhaoyin, deputy commander of the PLA Navy South Sea Fleet, lamented the lack of adequate numbers of rights protection ships. See Zhang Zhaoyin, "Truly and Effectively Safeguard Our Maritime Rights and Interests in the South China Sea" (*Qieshi Youxiao Weihu Nanhai Haiyang Quanyi*), *People's Navy*, 19 March 2014, p. 3. The Japan Coast Guard operates 54 cutters displacing more than 1,000 tons. See the Japan Coast Guard pamphlet available at <http://www.kaiho.mlit.go.jp/e/pamphlet.pdf>. The USCG currently operates 38 cutters displacing more than 1,000 tons. See USCG website: <http://www.uscg.mil/datasheet/>.

¹³⁹ U.S. Department of Defense, *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2014*, p. 38, http://www.defense.gov/pubs/2014_DoD_China_Report.pdf.

¹⁴⁰ Office of Naval Intelligence, *The PLA Navy: New Capabilities and Missions for the 21st Century*, Washington, D.C., April 2015, http://www.oni.navy.mil/Intelligence_Community/china_media/2015_PLA_NAVY_PUB_Interactive.pdf, p. 46.

Chapter 5: China's Maritime Militia¹⁴¹

Andrew S. Erickson and Conor M. Kennedy

Introduction

An important component of China's local armed forces is the militia. It supports China's armed forces in a variety of functions, and is seeing expanded mission roles as the People's Liberation Army (PLA) continues to modernize. While the maritime militia is not a new addition to China's militia system, it is receiving greater emphasis since China now aspires to become a great maritime power and because maritime disputes in China's near seas are a growing concern.

No official definition of the maritime militia exists in the many sources the authors examined. However, in late 2012 the Zhoushan garrison commander, Zeng Pengxiang, and the garrison's Mobilization Office described it concisely: "The Maritime Militia is an irreplaceable mass armed organization not released from production and a component of China's ocean defense armed forces [that enjoys] low sensitivity and great leeway in maritime rights protection actions."¹⁴²

¹⁴¹ This chapter is an abridgment of a paper prepared by Dr. Andrew S. Erickson and Mr. Conor Kennedy. Dr. Erickson is professor of strategy at the U.S. Naval War College's China Maritime Studies Institute (CMSI) and an associate in research at Harvard University's Fairbank Center for Chinese Studies. Mr. Kennedy is a research assistant in the China Maritime Studies Institute at the U.S. Naval War College in Newport, Rhode Island. He received his MA at the Johns Hopkins University - Nanjing University Center for Chinese and American Studies. The complete paper can be found at https://www.cna.org/cna_files/pdf/Chinas-Maritime-Militia.pdf. The ideas expressed here are those of the authors alone. A complete compendium of their previous publications on this subject may be accessed at <http://www.andrewe Erickson.com/2016/02/trailblazers-in-warfighting-the-maritime-militia-of-danzhou/>.

¹⁴² 曾鹏翔, 傅志刚, 连荣华 [Zeng Pengxiang, Chuan Zhigang, Lian Ronghua], "科学构建海上民兵管控体系" [Scientifically Build a Maritime Militia Management System], *National Defense*, No. 12 (2014), pp. 68-70.

The only estimate of the size of the maritime militia obtained during the course of this research was from a source published in 1978, which put the number of personnel at 750,000 on approximately 140,000 craft.¹⁴³ In its 2010 defense white paper, China stated that it had 8 million primary militia members nationwide.¹⁴⁴ The maritime militia is a smaller unique subset since it performs many of its missions at sea. However, an accurate number is not available. It is important to note that the maritime militia is distinct from both China's coastal militia (shore based) and its naval reserve, although some coastal militia units have been transformed into maritime militia units.¹⁴⁵

History of China's maritime militia

China's militia system originated before the Chinese Communist Party (CCP) came to power, but the system of making numerous state-supported maritime militias out of the coastal populations was not fully implemented until the Communists began to exercise greater control of the coastline in the 1950s. This segment of China's population had been relatively isolated from events on land and was subject to Japanese and Nationalist control in the decades before CCP rule was established. The CCP targeted the fishing communities, creating fishing collectives and work units, enacting strict organizational control, and conducting political education.¹⁴⁶ Factors motivating and shaping this transformation included:

- The PLA's early use of civilian vessels
- The need to prevent Nationalist Chinese (ROC) incursions along the coast
- The need to man the maritime militia with fishermen, as there were too few other experienced mariners

¹⁴³ Stephen Uhalley, "China in the Pacific," *Oceans* (May 1978), p. 33; David G. Muller, Jr., *China as a Maritime Power* (Boulder, CO: Westview Press, 1983), p. 90.

¹⁴⁴ *China's National Defense in 2010* (Beijing: State Council Information Office, March 2011), http://news.xinhuanet.com/english2010/china/2011-03/31/c_13806851.htm.

¹⁴⁵ 戴佳辰, 耿跃亭 [Dai Jiachen and Geng Yueting], "海上维权民船动员需求与对策研究" [Research on Requirements and Measures in Civilian Vessel Mobilization for Maritime Rights Protection], *国防* [National Defense], No. 10 (2015), pp. 41-44.

¹⁴⁶ Bruce Swanson, *Eighth Voyage of the Dragon* (Annapolis, MD: Naval Institute Press, 1982), pp. 216-23.

- Confrontations with other states' fishing and naval vessels, due to the depletion of fishery resources.
- The need to fish farther from shore, in contested waters.
- The transformation from coastal defense militias to the at-sea maritime militia.
- Overall trends in militia development, including specialization, emergency response, technological units, and increased orientation towards supporting each of the PLA branches.

Chinese fishing boats attempting to frustrate South Korean Coast Guard attempts to board and inspect



Photograph: AFP/Getty Images

<http://www.theguardian.com/world/2014/oct/10/chinese-fishing-boat-captain-dies-in-south-korea-sea-clash>.

The maritime militia has played significant roles in a number of military campaigns and coercive incidents over the years, including:

- The 1950s support of the PLA's island seizure campaigns
- The 1974 seizure of the western portion of the Paracels
- The 2009 *Impeccable* incident

- The 2011 harassment of Vietnam’s survey vessels (*Viking II* and *Binh Minh*)
- The 2012 Scarborough Shoal standoff (Tanmen Militia present)
- The 2014 Haiyang Shiyou-981 oil rig standoff.¹⁴⁷

¹⁴⁷ Detailed analysis concerning these and related issues is available in the authors’ other publications. See Conor M. Kennedy and Andrew S. Erickson, “Model Maritime Militia: Tanmen’s Leading Role In The April 2012 Scarborough Shoal Incident,” Center for International Maritime Security (CIMSEC), 21 April 2016, <http://cimsec.org/model-maritime-militia-tanmens-leading-role-april-2012-scarborough-shoal-incident/24573>; Andrew S. Erickson and Conor M. Kennedy, “Trailblazers in Warfighting: The Maritime Militia of Danzhou,” Center for International Maritime Security, 1 February 2016, <http://cimsec.org/trailblazers-warfighting-maritime-militia-danzhou/21475>; Andrew S. Erickson and Conor M. Kennedy, “China’s Daring Vanguard: Introducing Sanya City’s Maritime Militia,” Center for International Maritime Security, 5 November 2015, <http://cimsec.org/chinas-daring-vanguard-introducing-sanya-citys-maritime-militia/19753>; Christopher P. Cavas, “China’s ‘Little Blue Men’ Take Navy’s Place in Disputes,” *Defense News*, 2 November 2015, <http://www.defensenews.com/story/defense/naval/2015/11/02/china-lassen-destroyer-spratly-islands-south-china-sea-andrew-erickson-naval-war-college-militia-coast-guard-navy-confrontation-territorial-dispute/75070058/>; Andrew S. Erickson and Conor M. Kennedy, “Irregular Forces at Sea: ‘Not Merely Fishermen—Shedding Light on China’s Maritime Militia’,” Center for International Maritime Security, 2 November 2015, <http://cimsec.org/new-cimsec-series-on-irregular-forces-at-sea-not-merely-fishermen-shedding-light-on-chinas-maritime-militia/19624>; Andrew S. Erickson, “Making Waves in the South China Sea,” A ChinaFile Conversation, Asia Society, 30 October 2015, <http://www.chinafile.com/conversation/making-waves-south-china-sea>; Andrew S. Erickson and Conor M. Kennedy, “Directing China’s ‘Little Blue Men’: Uncovering the Maritime Militia Command Structure,” Asia Maritime Transparency Initiative, Center for Strategic and International Studies, 9 September 2015, <http://www.andrewerickson.com/2015/11/chinas-daring-vanguard-introducing-sanya-citys-maritime-militia/>; Andrew S. Erickson, “New U.S. Security Strategy Doesn’t Go Far Enough on South China Sea,” China Real Time Report (中国实时报), *Wall Street Journal*, 24 August 2015, <http://blogs.wsj.com/chinarealtime/2015/08/24/new-asia-pacific-maritime-security-strategy-necessary-but-insufficient/?mod=WSJBlog>; Andrew S. Erickson and Conor M. Kennedy, “Tanmen Militia: China’s ‘Maritime Rights Protection’ Vanguard,” *The National Interest*, 6 May 2015, <http://www.nationalinterest.org/feature/tanmen-militia-china%E2%80%99s-maritime-rights-protection-vanguard-12816>; Andrew S. Erickson and Conor M. Kennedy, “China’s Island Builders: The People’s War at Sea,” *Foreign Affairs*, 9 April 2015, <https://www.foreignaffairs.com/articles/east-asia/2015-04-09/china-s-island-builders>; Andrew S. Erickson and Conor M. Kennedy, “Meet the Chinese Maritime Militia Waging a ‘People’s War at Sea,’” China Real Time Report (中国实时报), *Wall Street Journal*, 31 March 2015, <http://blogs.wsj.com/chinarealtime/2015/03/31/meet-the-chinese-maritime-militia-waging-a-peoples-war-at-sea/>.

Role in China's goal of becoming a great maritime power

Since 2012, China's efforts to reach its strategic development goal of becoming a great maritime power have been greatly enhanced under Xi Jinping's leadership. The maritime militia's role in these efforts has received top-level leadership attention, from Xi on down. The fishing industry and the maritime militia built within it have been employed as political tools of the state to consolidate China's maritime claims, particularly in the South China Sea. Because the maritime militia is a grassroots movement in coordination with the nation's growing overall strategic emphasis on the ocean, its roles are as political as they are operational.

In 2013, He Zhixiang, director of the Guangdong Military Region (MR) Headquarters Mobilization Department, specifically pointed out three roles of the maritime militia:

- It forms a certain embodiment of national will (*guojia yizhi*) of the people in implementing maritime administrative control.
- It helps shape public opinion, as a group of "model" mariners meant to inspire both enterprises and the masses to get involved in maritime development and travel out to China's possessions (disputed islands and reefs).
- It is a guarantor of maritime safety, with its members often serving as the first responders in emergencies since they are already distributed out across the seas.¹⁴⁸

Director He also states that the maritime militia is an important force for normalizing China's administrative control of the seas, since it is on the front lines of rights protection. He calls for all areas within the nine-dashed line to have maritime militia presence.¹⁴⁹ Despite the maritime militia's role as a reserve force to be called on when needed, its use is increasingly routine.

The primary role of China's militia is to be an external defense force; its secondary role, to be a domestic security force.¹⁵⁰ It is also an important reserve force

¹⁴⁸ 何志祥 [He Zhixiang], "谈海上民兵建设'四纳入'" [Discussion on the "Four Integrations" in Maritime Militia Construction], *National Defense*, No. 4 (2013), pp. 36-37.

¹⁴⁹ He Zhixiang, "适应海防安全形势--建强海上民兵组织" [Adjusting to the Security Situation in Sea Defense—Strengthen Maritime Militia Organization], *National Defense*, No. 1 (2015), pp. 48-50.

¹⁵⁰ Dennis Blasko, *The Chinese Army Today*, 2nd ed. (London: Routledge, 2012), p. 23.

responsible for mobilizing in times of emergencies and war (*yingji yingzhan*). The maritime militia retains this orientation, serving external defense while assisting domestic security forces at sea. Domestic security roles take the form of conducting marine rescue operations and assisting maritime law enforcement (MLE) forces, while external defense roles entail performing a variety of operations to assist the PLA Navy (PLAN) as well as conducting independent operations.

The maritime militia is assigned a variety of missions, from more traditional logistics support for ground forces, to more advanced missions in support of the navy. Relatively new missions for the maritime militia include those focused on protecting China's maritime rights. The following list of mission roles is not exhaustive, but rather a summary of those detailed in Chinese sources:

- In “support the front” (*zhiqian*) missions, the maritime militia has roles in assisting the PLA and PLAN. It augments transport capacity through the loading and delivery of troops, vehicles, equipment, and materials; conducts medical rescue and retrieval of casualties; provides navigational assistance; conducts emergency repairs or refitting of vessels, docks, and other infrastructure; provides fuel and material replenishment at sea; and conducts other various logistical functions. It also prepares for engaging in cover and concealment operations (*weizhuang*) for army and naval units through the use of smoke, corner reflectors, and chaff grenades. The maritime militia also trains to conduct mine warfare and assist in blockade operations. As in many modern militia units, the areas of construction, information, and electronic warfare are becoming increasingly emphasized.
- Many new units have been formed for emergency response (*yingji*)—that is, to handle “*tufa shijian*,” a broad term that includes a variety of fast-erupting contingencies loosely defined as natural disasters, accidents, public health incidents, and societal security incidents that develop rapidly, harm the public, and require unconventional means of response.¹⁵¹ In 2007, the National People's Congress passed the “Emergency Response Law of the People's Republic of China,” which requires the militia to participate in relief efforts. Maritime militia emergency response units are tasked with handling sudden incidents at sea, such as rescue and relief operations. They make good first responders, as they may be near any incidents at sea—as expressed by the

¹⁵¹ “中华人民共和国突发事件应对法” [Emergency Response Law of the People's Republic of China], Chapter 3, Articles 3 and 17, Retrieved from Baike, 1 November 2007, http://www.baike.com/wiki/%E3%80%8A%E4%B8%AD%E5%8D%8E%E4%BA%BA%E6%B0%91%E5%85%B1%E5%92%8C%E5%9B%BD%E7%AA%81%E5%8F%91%E4%BA%8B%E4%BB%B6%E5%BA%94%E5%AF%B9%E6%B3%95%E3%80%8B&prd=so_1_doc .

phrase *jiudi jiu jin*, referring to responses made by nearby local forces. This tends to be a peacetime endeavor but is also certainly involved in a wartime setting.

- A more recent evolution in maritime militia responsibilities is to conduct “rights protection” (*weiquan*) missions. In 2013, the former commander of the Zhoushan garrison outlined the specific missions of the maritime militia in rights protection. These missions are meant to display presence, manifest sovereignty, and coordinate with the needs of national political and diplomatic struggles. They involve actions such as law enforcement in coordination with MLE forces, island landings, and work in disputed waters.¹⁵² As China’s non-military maritime forces, such as the China Coast Guard (CCG), are being built up rapidly with larger and more capable vessels, the maritime militia is being assigned a special role within what it refers to as the “Maritime Rights Protection Force System” (*weiquan lilianq tixi*).¹⁵³
- The maritime militia also trains for some independent missions, such as anti-air missile defense, light weapons use, and sabotage operations. Reconnaissance and surveillance are strongly emphasized, as China anticipates potential gaps in its intelligence, surveillance, and reconnaissance (ISR) coverage, and can have the maritime militia loiter around targets of interest or report sightings during its regular operations at sea.

As local leaders of coastal provinces look to the ocean for new areas of development and China’s military strategy focuses more on maritime power,¹⁵⁴ the Chinese practice of civil-military integration will necessarily be at the foreground of Chinese sea power. The mobilization of China’s mariner population into the maritime militia is one aspect that helps extend this civilian-military integration out to sea. Over the past decade, coastal governments, parties, and military headquarters have decided to shift their focus in militia building from urban defense out onto the seas and from inland to coastal towns and villages.

¹⁵² 王治平, 汪勇健 [Wang Zhiping and Wang Yongjian], “民兵参加海上维权斗争的几点思考” [Some Thoughts on Participation of Militia in Maritime Rights Protection Struggle], *National Defense*, No. 6 (2013).

¹⁵³ 张荣胜, 陈明辉 [Zhang Rongsheng and Chen Minghui], “关于组织动员海上民兵参与维权行动的几点思考” (Some Thoughts on Organizing and Mobilizing Maritime Militia to Participate in Maritime Rights Protection Actions), *National Defense*, No. 8 (2014).

¹⁵⁴ China’s first defense white paper on strategy stated explicitly, “The traditional mentality that land outweighs sea must be abandoned.” Section 4, 中国的军事战略 [China’s Military Strategy], (Beijing: State Council Information Office, May 2015), http://www.81.cn/dblj/2015-05/26/content_6507373.htm.

Many local governments along China's coast are constructing integrated coastal defense systems meant to better implement administrative control over their local waters. Places such as Weihai City in Shandong Province and China's newest prefecture, Sansha City, are organizing military-police-civilian joint/integrated defense systems (*junjingmin lianfang tixi*), which include maritime militia units. Sansha City's committee has been a focal point for military-police-civilian joint defense projects, with "three lines of defense" (militia, MLE, and military, in that order). The city has also established a joint defense coordination center, an integrated monitoring command center, and a "Hainan Province Paracels Islands Dynamic Monitoring System."¹⁵⁵ In economic terms, maritime militia organizations are explicitly meant to boost the marine economies of local areas and are considered an important force in creating "Great Maritime Provinces." maritime militia vanguard units demonstrate a willingness to enter disputed waters at the risk of being intercepted by foreign maritime forces; this boosts morale in local fishing communities and encourages them to venture farther from shore.

Command and control

First and foremost, the leadership of the maritime militia follows the dual military-civilian structure under which most militia organizations in China operate, with responsibilities for militia building falling on both local military organs and their government/Party counterparts (*shuangchong lingdao*). This dual-leadership system begins at the Provincial Military District (MD) level and goes down to the county/township People's Armed Forces Department (PAFD) level.¹⁵⁶

In early 2014, one MD Mobilization Division head wrote an article in the *National Defense* magazine explaining the command relationships for the maritime militia:

- Units independently conducting intelligence gathering and reconnaissance at sea are commanded directly by the MD system.

¹⁵⁵ 丛黎明, 马绍惠 [Cong Liming and Ma Shaohui], "威海军民推进海防建设融合发展" [Weihai Advances in Civil-Military Integrated Development in Sea Defense], *National Defense News*, 28 January 2015, http://www.mod.gov.cn/mobilize/2015-01/28/content_4567330.htm; "三沙市推动军警民联防机制--构建三线海上维权格局" [Sansha City Promotes its Military-Police-Civilian Joint Defense Mechanism—Constructs a Three-line Maritime Rights Protection Structure], 中国新闻网 [China News], 21 November 2014, <http://www.chinanews.com/gn/2014/11-21/6803776.shtml>.

¹⁵⁶ Bo Zhiyue, "The PLA and the Provinces," in *Civil-Military Relations in Today's China: Swimming in a New Sea* (Routledge, 2006), pp. 106-17; 严朝君任儋州市人武部党委第一书记 [Yan Chaojun Serves as Danzhou People's Armed Forces Department's First Party Secretary], *Danzhou News Network*, 3 March 2015, <http://www.danzhou7.com/a/a/c/03032A242015.html>.

- Emergency response units are organized by the local government or search-and-rescue agencies with MD participation.
- Rights protection units report to a command organized by their MD and relevant agencies, under the unified leadership of local government and Party officials.
- Units involved in law enforcement missions are commanded by the China Coast Guard with the cooperation of their MD, under the unified leadership of local government and Party officials.
- Units involved in supporting naval missions will be under the unified command of the PLAN with cooperation by the MD.¹⁵⁷

Control of individual vessels in the maritime militia seems to be along the following lines. First, grassroots-level cadres (*zhuanwu ganbu*) with strong political qualities and organizational capabilities are recruited directly into maritime militia detachments in order to strengthen fishing vessel command and control. Second, maritime militia personnel with “strong character” will receive focused training to improve their political work in order to create political forces within the maritime militia. Third, specialized “active duty boat cadres (*xianyi chuanting ganbu*) and signalmen (*tongxinbing*)” are recruited into the maritime militia in order to strengthen fishing vessel piloting and communication controls. Although *boat cadre* as a term may seem ambiguous, many local PAFDs have targeted fishing vessel captains, owners, and exceptional crew members to serve as cadres for the maritime militia.¹⁵⁸

Other sources refer to the cadres as “boat bosses/skippers” (*chuan laoda*, 船老大), or simply “captains” (*chuanzhang*). Former active duty personnel are given priority for entrance into the maritime militia, and likely assume unit leadership roles, becoming cadres. Cadres make up an important group that helps maintain unit cohesiveness and helps ensure that militia building conducted by the PAFD is carried out at the grassroots level. Cadres often serve as squad or platoon leaders. They are especially critical for riding herd over potentially under-disciplined maritime militia units that might otherwise abdicate responsibilities while at sea. Many militia training outlines

¹⁵⁷ 徐海峰 [Xu Haifeng], “适应新形势 全面规范海上民兵建设” [Adapting to New Circumstances—Comprehensively Standardize Maritime Militia Construction], *National Defense*, No. 2 (2014).

¹⁵⁸ 邓伟余, 赵赵继承 [Deng Weiyu and Zhao Jicheng], “海上民兵’崛起在蓝色国土” [The Rise of “Maritime Militia” on Blue Territory], *National Defense*, No. 2 (September 2007); 廖刚斌, 王牌, 熊睿 [Liao Gangbin, Wang Pai, and Xiong Rui], “海上民兵分队建设存在的问题与对策” [Issues and Measures in Maritime Militia Unit Construction], *National Defense*, No. 8 (2014), pp. 14-15.

and plans drafted by counties and villages require more intense training of cadres and platoon/company commanders; thus, those personnel may be sent to Military Sub-District (MSD) - or MD-level collective militia training.¹⁵⁹ The cadres at each unit's headquarters or embedded within units are critical for ensuring that maritime militia personnel abide by the commands of the military and serve the interests of the Party.

When MLE forces employ and command the maritime militia for missions involved in rescue, law enforcement, or rights protection, it becomes a matter of who will fund or materially support the units being mobilized. Many sources use the phrase “whoever employs the troops must support the troops” (*shei yongbing, shei baozhang*), meaning that departments such as MLE forces who want to use the maritime militia to conduct particular operations must support the militia in those operations. It is unclear exactly what this support entails, and whether the funds compensate vessel owners or only pay for the actual materials necessary for the operation. What it does suggest is that the broad spectrum of missions conducted by the maritime militia requires support from multiple agencies, alleviating some of the burden on local military commands and governments.

Informatization in action

As early as 2007, the need for a civilian vessel and militia maritime surveillance network and information support system that would cover the country's vast fishing fleet was recognized by the PLAN. It wanted the satellite navigation and positioning services provided by a combination of the Beidou positioning, navigation, and timing satellite system and automated short-wave radio transmission to be fused in a way to create near-real-time data connectivity so that China's large fishing fleet could supplement the PLAN's maritime domain awareness (MDA) efforts.¹⁶⁰ That same year, the Yuhuan County maritime militia “battalion” reported completion of a maritime militia surveillance and early warning network, formed between the far seas, near seas, and shoreline, calling the vessels “militia recon vessels.” Xiangshan County of Zhejiang Province operates a large maritime militia reconnaissance detachment that

¹⁵⁹ “大冶市2012年度民兵军事训练计划” [Daye City 2012 Annual Militia Military Training Plan], <http://www.wenku1.com/view/272D31DB2ED82D24.html>.

¹⁶⁰ 刘七虎, 郑一冰 [Liu Qihu and Zheng Yibing], “依托海上民船民兵建立侦察信息体系” [Establish a Reconnaissance Information System Based on Civilian Vessels and Militia], *National Defense*, Vol. 6 (2007).

follows the same pattern as laid out by the PLAN HQ, with 32 “motherships” acting as nodes for 150 vessels forming a network of surveillance.¹⁶¹

Issues of approval authority, command relationships, mobilization processes, and command methods are especially prominent when it comes to its role in rights protection. PAFDs have set up command and control systems between the dispatch offices of marine enterprises and the China Coast Guard. The communications systems already in use by the coast guard—such as the Beidou Satellite Navigation System, VHF radios, the Automatic Identification System (AIS), cellular coverage when available,¹⁶² and satellite phones—are used to ensure reliable command and control when at sea.¹⁶³ The equipment is provided to the maritime militia by the MSD, which coordinates with fisheries departments to purchase and distribute satellite navigation terminals, navigational radar, radios, and other electronic equipment.¹⁶⁴

According to Ju Li, director of the Fisheries Law Enforcement Command Center, a blend of capabilities form an important part of the nation’s emergency response and early warning system: 14 shortwave shore stations, 78 UHF shore stations, 15 provincial fishing vessel position-monitoring centers, 30 fisheries AIS base stations, and 59 fishing port video surveillance branches established nationwide.¹⁶⁵ This is a redundant and presumably robust communications network built to maintain reliable communications with militia fishing vessels many miles at sea.

Beidou terminals have been widely installed on China’s fishing fleets,¹⁶⁶ allowing the agencies to track their position and have two-way message transmission of up to 120

¹⁶¹ Zuo Guidong, Li Huazhen, and Yu Chuanchun, “Heroic Primary Militia Battalion, Strengthening Construction of Maritime Specialized Detachments.”

¹⁶² 3G Cellular coverage has been provided by China Telecom for the Spratly Islands since June 2013. “中信卫星携手中国电信实现南沙群岛3G信号全覆盖” [CITIC Satellite Together with China Telecom Achieve Full 3G Signal Coverage of the Spratly Islands], CITIC Group Corporation, 31 July 2013, <http://group.citic/iwcm/null/null/ns:LHQ6LGY6LGM6MmM5NDkzOGI0MDJmMTMyZjAxNDZzMjQ5NDRmZTAwMTEscDosYTosbTo=/show.vsm>.

¹⁶³ Zeng Pengxiang et al., “Scientifically Build a Management System for the Maritime Militia.”

¹⁶⁴ 吴广晶, 李永鹏 [Wu Guangjing and Li Yongpeng], “打造蓝色大洋支前精兵” [Creating Blue Ocean Elite Support Troops], *Liberation Army Daily*, 29 November 2013.

¹⁶⁵ 居礼 [Ju Li], “北斗卫星导航系统在海洋渔业的应用” [Applications of the Beidou Satellite Navigation System in Marine Fisheries], Chengdu Guowei Communications Technology Co., Ltd., 4 February 2014, <http://gwsatcom.com/Trends/inform/2015-06-23/79.html>.

¹⁶⁶ “福建: 3800艘渔船将装北斗终端” [Fujian: 3,800 Fishing Vessels will Install the Beidou Terminal], *Fujian Daily*, 13 June 2014, <http://www.beidou.gov.cn/attach/2014/07/25/20140725.pdf>.

Chinese characters¹⁶⁷—enough to dispatch orders to fishing boats as far away as the Spratly Islands in the South China Sea. In some areas, Beidou has become an important supplement to the AIS vessel tracking system that uses shore-based stations to receive ship positioning and identification information; when fishing boats are beyond the range of shore based AIS stations, Beidou’s AIS transceiver automatically turns on—it also turns off when within range of the shore station, which helps avoid duplicate tracks.¹⁶⁸ The widespread implementation of Beidou’s Vessel Monitoring System, which includes a marine fisheries integrated information service,¹⁶⁹ permits greater levels of control of at-sea maritime militia vessels.¹⁷⁰ The head of Zhejiang MD’s Mobilization Division, Xu Haifeng, writes that military organs use these systems for monitoring fishing vessel safety and rescue in order to build a maritime militia-FLE-MSD-Navy information-sharing channel.¹⁷¹

Obviously, providing the means to report surveillance information is important—but so is the quality of information being reported. Selected militia members are trained as reporting specialists, i.e., information personnel (*xinxiyuan*), within units.¹⁷² These personnel collect intelligence at sea, and use the Beidou and other reporting systems to ensure that the information is sent up the chain. Fu’an, a county-level city of Fujian Province’s Ningde Prefecture, recently held a week-long collective training session for its maritime militia information personnel, covering target identification, essentials of collection methods, and operation of the maritime militia vessel

¹⁶⁷ “Report on the Development of Beidou Navigation Satellite System (Version 2.2),” *China Satellite Navigation Office*, December 2013, <http://www.beidou.gov.cn/attach/2013/12/26/20131226fed336adf2184d52843d5bf81832e82c.pdf>.

¹⁶⁸ “东海航保中心成功研发北斗AIS一体化船载终端” [East Sea Navigational Safety Center Successfully Develops Beidou and AIS Integrated Vessel Terminal], *China Water Transport*, 7 January 2014, <http://www.beidou.gov.cn/2014/01/08/20140108b55319901d3f4d2f80f136a4fa66c51a.html>.

¹⁶⁹ Kevin Pollpeter et al., “The Research, Development, and Acquisition Process for the Beidou Navigation Satellite Programs,” *SITC Research Brief* (January 2014).

¹⁷⁰ “Report on the Development of Beidou Navigation Satellite System (Version 2.2),” China Satellite Navigation Office, December 2013, pp. 9-10.

¹⁷¹ Xu Haifeng, “Adapting to New Circumstances—Comprehensively Standardize Maritime Militia Construction”; “浙江省加强海上民兵建设” [Zhejiang Province Strengthens Maritime Militia Construction], Xinhua Wang, 4 December 2013, http://news.xinhuanet.com/mil/2013-12/04/c_125806747.htm.

¹⁷² “宁德市人民政府办公室宁德军分区司令部关于做好2014年度民兵预备役工作的通知” [Ningde City Government Office and Ningde Military Sub District Command Notice on the Completion of 2014 Militia Reserve Work], Ningde City Government, 16 March 2014.

management platform and the Beidou notification terminal.¹⁷³ In short, the maritime militia has created a cadre of specifically trained fishermen, in order to ensure that a degree of expertise and professionalism exists in the reconnaissance function of the maritime militia. Being able to properly classify the type of ship or aircraft that one spots at sea is very important. Having specially trained militiamen helps eliminate some of the uncertainty by higher headquarters regarding what specific types of ships or aircraft are actually operating in the South China Sea.

In sum, the Navy utilizes the maritime militia in both peacetime and wartime when needed. MLE forces can also call on maritime militia to support their own missions, but would likely have to provide the funding, i.e., fuel and labor, for such operations. In all cases, the MD military and civilian leadership would be involved, either directly or in a supervisory role. New institutions and technologies are being incorporated into the mobilization system in order to increase the speed with which local commands can transfer warfighting potential into warfighting force. From theater-level exercises, to orders to mobilize, and from Beidou messages received by captains operating fishing vessels at sea, all the way down to notifications received by individual militiamen from their local PAFD via a specifically designed app on their mobile phones, the ability to reliably employ the maritime militia is growing in sophistication and effectiveness. It is an interesting example of informatization at the micro level.

Tailored organization

Local military and civilian leaders appear to have a degree of autonomy in the way they organize militias. For example, Guangxi Province has a “maritime militia Construction Plan for 2020” that was agreed on at a provincial military affairs meeting attended by the principal leaders of the provincial National Defense Mobilization Committee (NMDC). Militia building is based on the common sense guideline that the militia should be based on the sort of militia capabilities that are necessary and the capacity of a locality to satisfy the requirement.

At the center of the maritime militia organization are the county- and grassroots-level PAFDs, who are directly involved in the normal management and organization of the units. PAFDs “scientifically organize” (*kexue bianzu*) militia forces on a scale

¹⁷³ “福安市人武部组织海上民兵信息员集训” [Fu’an City PAFD Organizes Maritime Militia Information Personnel Collective Training], Fujian National Defense Education Network, 19 September 2014, http://mil.fjnet.cn/2014-09/19/content_14905500.htm.

matching the mobilization potential that exists in that locality.¹⁷⁴ Specifically, MSD military commanders place the maritime militia into three general unit formations: reconnaissance detachments, emergency response detachments, and support detachments.¹⁷⁵

From 2013 to 2015, He Zhixiang, head of the Guangdong Military Region Mobilization Department, addressed the construction of the maritime militia in depth. In 2013 he brought up four aspects of integrating maritime militia into national strategic management of the seas and the country's overall maritime strategy. Then, in 2015, He proposed a maritime militia force organization that lays out the geographical mission areas of different types of units, combining near, middle, and far areas:

- Reconnaissance forces are deployed to distant islands, reefs, and areas around important waterways.
- Maritime militia assisting MLE forces are primarily deployed around disputed islands, reefs, and sea areas.
- Maritime militia support forces are deployed to naval stations, ports, piers, and predetermined operational sea areas.
- Emergency response forces make mobile deployments to sea areas around "traditional fishing grounds."

He opines that units could be organized according to their operational destinations: forces assigned to law enforcement and reconnaissance missions would be organized based on the sea areas in which they normally conduct productive activities. This likely means that maritime militia units composed of fishing vessels would be organized within their normal fishing areas, allowing them to be conveniently mobilized there. Conversely, maritime militia forces responsible for security or loading operations would be organized in the coastal areas in which they are needed. In accordance with this type of approach, He also proposed a mixture of stable unit organization and flowing organization: units formed out of stable enterprises would develop marine resources or work on island and reef construction, while also serving as mobile militia sentry posts in distant waters. Lastly, He discusses moving away from units that combine fishing enterprises with individual fishermen, and instead creating concentrated, linked organizations in coastal areas that contain numerous

¹⁷⁴ He Zhixiang, "Adjusting to the Security Situation in Sea Defense—Strengthen Maritime Militia Organization."

¹⁷⁵ "三沙海上民兵连" [Sansha Maritime Militia Company], *Baidu Baike*, <http://baike.baidu.com/view/10797320.htm>.

large-scale marine enterprises, including a dispersed ad hoc method of recruiting when personnel with specialized skills are needed.¹⁷⁶

He's views reflect the degree to which the military leadership is experimenting with different forms of maritime militia organization, as most who write on the subject use words such as “exploring” (*tansuo*) or “development path” (*jianshe zhilu*). The reality is that the maritime militia is a flexible instrument whose employment is sensibly left to the desires of the MR (now Theater Command) staff. There is no uniform model for maritime militia organization.

Training

Training of militia is not overly intense, because of the militia members' normal “day jobs.” To compensate, the PAFD active duty personnel, cadres, battalion/company militia unit commanders, and militia information personnel receive focused training. This is essentially a matter of “training the trainers” since these individuals are expected to train individual militia members in turn. Having well-trained supervisors is necessary, because it is rare for any given region to have its entire maritime militia force available for training at a single event. For example, Mawei District was only able to train one-fourth of its emergency response militia personnel during a given exercise.¹⁷⁷ This reality of limited training availability is one reason that demobilized active duty soldiers and Party members are considered priority recruiting targets because of their exposure to following rules and regulations. If they can be recruited, they are often given positions of responsibility within the maritime militia units.¹⁷⁸

¹⁷⁶ He Zhixiang, “Discussion on the ‘Four Integrations’ in Maritime Militia Construction”; He Zhixiang, “Adjusting to the Security Situation in Sea Defense—Strengthen Maritime Militia Organization.”

¹⁷⁷ “关于做好2014年度民兵组织整顿和兵役登记工作的通知” [Notice on the Completion of 2014 Militia Reorganization and Military Service Registration Work], issued by Tingjiang Township, 12 May 2014.

¹⁷⁸ “关于印发《2015年党江镇民兵组织整顿工作实施方案》的通知” [Notice on the Issue of “Dangjiang Township 2015 Militia Consolidation Implementation Plan”], Document no. 15, issued by Dangjiang Township, 25 March 2015, <http://219.159.197.85:8080/govinfo/documentAction.do?method=toDocView&docId=059e53c4-c7a5-45d2-b58e-3720e6291dc5&moduleId=046f299f-f5c2-49c3-833c-3651c836a3d4>.

Examples of recent maritime militia activities

The following sample set of recent maritime militia activities focuses on paramilitary functions. Therefore, it omits a large number of cases in which the maritime militia rescued other fishing and domestic vessels.

Guangzhou MR:

May 2015 — In Guangdong Province, Jiangmen MSD organized a training exercise for the maritime militia detachments, focusing on their wartime missions. Exercises involved assembly and mobilization, maritime rights protection, patrolling, logistics, and emergency repairs of piers hit by the enemy.¹⁷⁹

May 22, 2015 — In Hainan Province, the Dongfang City PAFD militia training base held an award ceremony for a maritime militia skills contest, granting awards to advanced units and personnel. City officials attending the event emphasized strengthening the maritime militia units and training them to become a force for protecting territorial sovereignty and maritime interests, and for supporting active duty forces.¹⁸⁰

April 20-25, 2015 — In Hainan Province, the Danzhou City MSA assisted the city PAFD in holding a Danzhou City-wide maritime militia contest/demonstration in the basic skills of maritime rights protection. The MSA strengthened communications with the city PAFD; cooperated with port authorities; offered its own pier as the site for this activity; ensured security during the event; and made sure that the PAFD issued timely navigational warnings, provided management for transportation, and cordoned off the sea area for the activities.¹⁸¹

¹⁷⁹ 刘方超 [Liu Fangchao], “江门军分区组织海上民兵分队开展实战训练” [Jiangmen Military Subdistrict Holds Realistic Combat Training for Maritime Militia Units], *Liberation Army Daily*, 19 May 2015, http://www.81.cn/mb/2015-05/19/content_6496450.htm.

¹⁸⁰ “东方市表彰海上民兵技能比武先进个人和单位” [Dongfang City Recognition Ceremony for Maritime Militia Individual and Unit Skills Contest], Dongfang City Broadcast Station, 23 May 2015, <http://www.dongffc.cn/news/20150523/26918.html>.

¹⁸¹ “洋浦海事局提前作好协调海上民兵比武观摩活动的准备工作” [Yangpu Maritime Safety Administration Completes Preparation Work Ahead of Coordinated Maritime Militia Training Exercise Tournament], Publicity Department of Hainan Maritime Safety Administration, 17 April 2015, http://www.hnmsa.gov.cn/news_6478.aspx.

December 2014 — Along with Sansha City’s establishment of PAFDs in Yongxing Village, North Island, as well as somewhere in the Crescent Group of the Paracels and somewhere in the Spratlys, the city also held an integrated maritime administrative law enforcement exercise involving the maritime militia, CCG, and FLE. The exercise was meant to raise the city’s capabilities in maritime administrative control, specifically focusing on inspection of illegal fishing boats and rescue operations. The exercise ended with a seven-day joint law enforcement patrol.¹⁸²

August 2014 — In the Gulf of Tonkin, a maritime garrison of the South Sea Fleet organized a large-scale area defense joint exercise involving forces from the navy, naval aviation, air force, FLE, CCG, and maritime militia elements. This exercise simulated protection of a drilling rig. Exercises included joint escorting of supply ships by the PLAN and CCG, and responses to enemy incursions with multi-wave missile attacks from warplanes and missile boats. When a suspicious enemy armed fishing trawler approached the defensive lines, the command ordered a maritime militia reconnaissance boat to go out and inspect it under the over-watch of a naval submarine chaser, with a CCG patrol vessel assigned to intercept the enemy boat. Simulated frogmen heading towards the rig were dealt with by live fire from naval guns and light weapons. A nearby observation and communications station monitoring the exercise used a unified command platform to deliver early warning information to the command center.¹⁸³

Nanjing MR:

May 19, 2015 — In Zhejiang Province, the Ningbo City NDMC held a maritime mobilization “support the front” exercise. Xiangshan District’s PAFD displayed its maritime militia reconnaissance detachment, with over 182 fishing vessels forming a reconnaissance network. There were 32 “motherships” forming nodes, and 150 vessels subordinate to these motherships forming a network.¹⁸⁴

March 2015 — In Zhejiang Province, Wenzhou MSD held “realistic” training exercises for its naval militia detachments, emphasizing informatized support using satellite

¹⁸² “中国南海四岛出现新情况: 整个南海紧张” [A New Situation on Four Chinese Islands in the South China Sea: Tension throughout the South China Sea], 10 January 2015, <http://www.junying.com/jstd/932fe5b5.html>.

¹⁸³ 张毅根, 何鹏责 [Zhang Yigen and He Pengze], “保护钻井平台: 军警民南海演练围歼” [Protecting the Drilling Platform: Military-Police-Civilian Exercise to Surround and Annihilate], *National Defense News*, 23 August 2014, http://www.81.cn/jmywyl/2014-08/23/content_6107899.htm.

¹⁸⁴ “A Thousand Vessels Go out to the Blue Territory Together,” *National Defense News*, 25 May 2015.

navigation, long-range command and control, and even new techniques to interfere with electronic surveillance.¹⁸⁵

December 2014 — In Xiangshan Harbor, in Zhejiang Province, a reserve minesweeper unit of the East Sea Fleet organized a military-civilian minesweeping exercise, involving fishing vessels. Over the years, this unit has trained and harnessed the abilities of fishermen to deploy and sweep sea mines as well as perform reconnaissance. In a departure from the usual maritime militia nomenclature, the personnel of this force were referred to as “reservist officers and soldiers.”¹⁸⁶

January 27, 2014 — Shanghai Jiangnan Shipyard’s maritime militia ship repair battalion held a training exercise commanded by both the city mayor and the garrison commander. Upon receiving the mobilization order from a truck-based satellite National Defense Command Center, using data stored on the National Defense Mobilization Command Information Network, orders were sent out to the mobilization group at Jiangnan Shipyard. Within three hours, 200 militia members reported for duty and set out on an East Sea Search and Rescue Bureau ship. They repaired a leak in a naval vessel; conducted firefighting, coordinated by the rescue vessel’s helicopter; and performed dredging and salvage operations for a sunken, sand-laden vessel. The units of this group had received training in repairing naval vessels and using naval tools to carry out repairs.¹⁸⁷

September 2012 — In Jiangsu Province, Taicang City’s militia emergency response group’s recon and transport detachment responded to a distress call from two cargo vessels that had collided 80 nautical miles out. Using its “satellite navigation command system” (likely the Beidou system, which features message transmission capabilities), it located the vessels. The detachment took on the vessels’ goods and personnel, and conducted emergency repairs.¹⁸⁸

¹⁸⁵ 徐守洋, 孟晓飞 [Xu Shouyang and Meng Xiaofei], “海上支援作战能力逐浪攀升” [Maritime Support Operations Climbing the Waves], *National Defense News*, 7 April 2015.

¹⁸⁶ “东海大批渔船编入海军 条条渔船是战舰” [A Large Number of Fishing Vessels Enter the Navy in the East China Sea—Each Fishing Vessel is a Warship], 人民海军 [People’s Navy], 8 December 2014, p. 4.

¹⁸⁷ “Maritime Support the Front, Advancing toward the Deep Blue—A Record of Shanghai City’s Support the Front Maritime War Fighting Mobilization Exercise,” *National Defense News*, 27 January 2014.

¹⁸⁸ 王绍云, 王军钢, 庄明霞 [Wang Shaoyun, Wang Jungang, and Zhuang Mingxia], “江苏省太仓市打造海上民兵应急支前先锋队掠影” [Glimpse of Jiangsu Province’s Taicang City Maritime Militia Emergency Support Vanguard], *PLA Pictorial*, No. 8 (2013), <http://www.plapic.com.cn/txt/201308b/20130811-1B.html>.

Jinan MR:

October 2014 — In Shandong Province, Rizhao City, Lanshan District, training exercises, which were arranged by the PAFD in coordination with army and navy units, involved 10 maritime militia specialized detachments utilizing various types of vessels. maritime militia recon, equipment, and technical support detachments engaged in joint training with a naval unit, and maritime militia transport and logistics detachments supported a PLA Army beach landing exercise. Military and civilian authorities jointly organized exercises for the maritime militia emergency response and rescue detachments.¹⁸⁹

November 2013 — In Shandong Province, Weihai MSD, Rushan City, several hundred maritime militia members of the enterprise Zhengyang Group participated in an exercise “under gunfire” for loading and unloading, and rescue and repair. The group received military and civilian approval for its amphibious war-fighting capabilities. In May of that year, the city’s first marine fishing cooperative had established a “group army” out of 70 fishing vessels.¹⁹⁰

Incentives

Vessels mobilized for military purposes can vary widely, from fishing trawlers to oil tankers, as was recently publicized in China’s new classification standards for civilian shipbuilding. For example, Fuzhou City’s “Temporary Regulations on Fuzhou Civilian Vessel and Militia Crew Mobilization and Requisition” states that all fishing vessels of 50-ton displacements or higher must register with the city’s national defense transportation authorities.

Vessel owners complain about the opportunity cost from being held up at a dock for militia obligations. Local governments and regulations concerning vessel mobilization and requisition allow for monetary compensation to vessel owners and personnel for lost income.¹⁹¹ To resolve the costs of the maritime militia and

¹⁸⁹ 曹树建, 刘健 [Cao Shujian and Liu Jian], “大海成为民兵练兵备战主战场” [The Seas Have Become the Main Battlefield for Militia Combat Readiness Training], *National Defense News*, 3 November 2014, http://www.81.cn/gfbmap/content/2014-11/03/content_91820.htm.

¹⁹⁰ 谭磊, 于安丰, 管水锁 [Tan Lei, Yu Anfeng, and Guan Shuisuo], “千舟竞发, 护卫千里海疆安宁” [A Thousand Boats Set Off to Guard the Peace of One Thousand Li of Coast], *Liberation Army Daily*, 10 February 2014, http://www.81.cn/jmywyl/2014-02/10/content_5764774_2.htm.

¹⁹¹ “福州市人民政府关于修改《福州市民用船舶和船员民兵动员征用暂行规定》的决定” [On Fuzhou City Government’s Revisions to “Temporary Regulations on Fuzhou Civilian Vessel

convince its units to sail to more distant locales such as the Spratlys, many local governments subsidize the fuel for these boats. Taishan City of Guangdong Province recently garnered considerable attention from military leaders, and received a visit from MOD Minister Chang Wanquan. In 2013, the Guangdong MD commander visited Taishan to inspect its maritime militia construction and meet with fishing representatives. That year, Taishan's city government provided 194 million RMB in fuel subsidies to its 2,650 fishing vessels (this came out to about 3,850 RMB per ton).¹⁹² Hainan's famous Tanmen Village also provides fuel subsidies to its maritime militia, meant to mitigate the expense of travel to the Spratlys.

A system of rewards and publicity is set up to encourage the maritime militia, with events usually held during provincial military affairs meetings. A series of awards recognize advanced militia units, advanced captains and cadres, and other outstanding individuals; such accolades are meant to instill pride and a sense of national duty in the maritime militia. Other efforts are meant to prevent abuse or neglect of militia obligations, requiring each fishing vessel and its crew to have the appropriate certificates for national defense and mobilization. These are reviewed annually, to ensure that all the militia National Defense Obligation Certificates are up to date and sufficient. If crews violate their obligations, their fuel subsidies will be reduced or eliminated, and their fishing permits could even be cancelled.¹⁹³

Implications

China's maritime militia plays an important supporting role for the PLAN and MLE in the Yellow, East and South China Seas. It has the advantage of recruiting its members

and Militia Crew Mobilization and Requisition"], issued by Fuzhou City Government, 14 November, 2014, <http://law.law-star.com/cac/4140096684.htm>; “广东省海上民用船舶动员征用规定”[Regulations on Guangdong Provincial Mobilization and Requisition of Civilian Marine Vessels], issued by Guangdong Provincial Government, 13 May 2002, http://zwgk.gd.gov.cn/006939748/200909/t20090915_11195.html.

¹⁹² 石江龙 [Shi Jianglong], “2650艘渔船分享1.94亿燃油补贴” [2650 Fishing Vessels Receive 194 Million in Fuel Subsidies], <http://paper.oeeee.com/nis/201311/29/145728.html>; “台山市委书记张磊获得广州军区第七届“国防之星”殊荣” [Taishan City Committee Secretary Zhang Lei Receives Guangzhou Military Region's Seventh “National Defense Celebrity” Distinction], 16 June 2015, <http://news.tsbtv.tv/2015/0616/39266.shtml>; “省军区司令员台山调研海上民兵建设工作” [Provincial Military District Commander Investigates Tanshan's Maritime Militia Work], *Taishan Station*, 27 November 2013, <http://www.jmtv.cn/news/a/e/2013-11-27/1385552619943.shtml>.

¹⁹³ Zeng Pengxiang, Chuan Zhigang, and Lian Ronghua, “Scientifically Build a Maritime Militia Management System.”

and vessels from an enormous fishing fleet that is also routinely active in contested waters around China. The maritime militia also enjoys very high level support. For instance, in 2013, when Xi Jinping visited Qionghai City in Hainan Province, he met the maritime militia and told them that “Maritime Militia members should not only lead fishing activities, but also collect oceanic information and support the construction of islands and reefs.” He went on to also praise fishermen for protecting China’s maritime interests in the disputed waters in the South China Sea.¹⁹⁴

Amid the rising tensions in the South China Sea and East China Sea, renewed attention is being given to the development of maritime militia. Some Chinese scholars and security experts have been advocating that maritime militia should be China’s first line of defense in the South China Sea and East China Sea.¹⁹⁵ Since Xi’s April 2013 visit to Hainan, numerous articles have been published in the *PLA Daily* and *National Defense Magazine* urging for more support to develop maritime militia forces. More financial resources were allocated to provide training for the fishermen and subsidize the building of new fishing vessels.¹⁹⁶ In the past, China’s maritime militia forces have normally relied on renting the fishing vessels of the fishermen or fishing companies, but it appears that China is building a state-owned fishing fleet for its maritime militia force in the South China Sea. China’s Hainan Province has ordered the building of 84 large militia fishing vessels for Sansha City; 10 fishing vessels were scheduled to be delivered in 2015, with 4 reportedly delivered by August 2015.¹⁹⁷

¹⁹⁴ “President Pays Visit to Hainan Fishermen,” *China Daily*, 11 April 2012, http://usa.chinadaily.com.cn/2013-04/11/content_16394643.htm.

¹⁹⁵ Additional details at “专家：10万渔民民兵化 南海 诸国都不是对手” [Expert: 100,000 Fishermen Become Militia, South China Sea Countries Are Not Rivals], 环球时报 [Global Times], 28 June 2012, <http://mil.huanqiu.com/Observation/2012-06/2862590.html>; “将渔民编人民兵保家卫国” [Incorporating Fishermen into Militia Will Defend the Homeland], 南国都市报 [Southern Metropolis Daily], 27 January 2013, http://ngdsb.hinews.cn/html/2013-01/27/content_5_6.htm.

¹⁹⁶ Wang Xinhai, “推进新型海防建设军民深度融合发展的路径选择” [Paths to Push Forward New Model of Marine Border Defense and Civil Military Cooperation], *National Defense*, No. 3 (2014), <http://kns55.en.eastview.com/kcms/detail/detail.aspx?recid=&FileName=GUOF201403008&DbName=CJFD2014&DbCode=CJFD>.

¹⁹⁷ “通报市领导班子专题民主生活会情况 分析上半年工作部署下半年工作” [Circular on City Leadership’s Special Meeting on the State of Democratic Life—Analysis of Work Plan from the First and Second Half of the Year], Sansha City News Office, 24 July 2014, <http://www.sansha.gov.cn/page.php?xuh=1624>; “关于在文昌木兰头规划建设三沙战略腹地 and 民兵渔船停泊港的建议” [Proposal on the Planning of Construction of a Strategic Interior and Militia Fishing Vessel Berths for Sansha in Mulantou of Wenchang], Hainan Government Website, 12 February 2015, <http://www.hainan.gov.cn/tianprint-rdgy--5740.html>; “外媒称三沙拟建84艘大型民

The militia provides a low-tech peacetime adjunct to China's space-based surveillance systems. Since the key to what the Pentagon has called China's anti-access/area denial (A2/AD) system is the ability to closely monitor China's seaward approaches, it is hardly surprising that the PLA has elected to capitalize on the on-hand capabilities that its fishing fleet offers. In addition to the obvious surveillance advantages, other low-intensity peacetime scenarios include supporting rights protection (presence missions, obstruction, reef/island development, "cabbage strategy"-style envelopment, etc.) and dealing with fishing-fleet-related skirmishes over maritime claims. Medium-intensity scenarios could include involvement in conflicts between China and its smaller regional neighbors. In these cases, the maritime militia might be charged with greater strategic employment (mine warfare, ambush, false landings, etc.). High-intensity conflict, involving war between great powers—which is the least likely scenario to occur in practice—might witness maritime militia providing support to active duty forces (in the form of mine laying, replenishment of island bases, transport of troops and ammunition, rescue, repair, concealment, sabotage, etc.).

Given the increased focus on the maritime militia by Chinese commentators and the way it has already been employed in the seas proximate to China, it seems clear that the Maritime Militia is a key element of Beijing's overall vision of acting as a maritime power, at least in what it considers home waters. The militia work with other instruments of Chinese sea power—the military and the coast guard—to defend and advance China's position in its disputes—its maritime rights and interests. Operating in civilian fishing vessels, they allow China to be obnoxiously aggressive in the harassment of foreign fisherman and the defiance of other coast guards operating in what China considers its near seas; as the PLA's official newspaper states, "Putting on camouflage they qualify as soldiers, taking off the camouflage they become law abiding fishermen."¹⁹⁸

兵渔船 巩固南沙主权” [Foreign Media Say That the 84 Large Maritime Militia Fishing Vessels Will Consolidate Spratly Islands Sovereignty], 参考消息 [Reference News] via QQ News, 2 August 2015, <http://news.qq.com/a/20150802/006925.htm>.

¹⁹⁸ Cited in Andrew Erickson and Conor Kennedy, *Irregular Forces at Sea: Not merely Fishermen—Shedding Light on China's Maritime Militia*, Center for International Maritime Security (CIMSEC), November 2, 2015, <http://cimsec.org/new-cimsec-series-on-irregular-forces-at-sea-not-merely-fishermen-shedding-light-on-chinas-maritime-militia/19624>.

Chapter 6: China's Shipbuilding¹⁹⁹

Michael McDevitt

Introduction

China has viewed shipbuilding in strategic rather than commercial terms, and developed the industry to ensure that China was self-sufficient in sea trade. This strategic perspective endures: Beijing still wants its imports of raw materials and food—as well as its exports, to the extent possible—to be undertaken by ships built and owned by China. But, beyond building for self-sufficiency, the global demand for new ships sparked by the globalization of trade turned China's shipbuilding sector into a money maker. It quickly expanded to include building ships for export when global demand for ships made it possible for China to compete internationally because of low labor costs and rapidly improving quality.²⁰⁰

China's shipbuilding take-off

China achieved first place in terms of merchant shipbuilding production in 2010, when it delivered 18.8 million compensated gross tons (CGT),²⁰¹ more than South

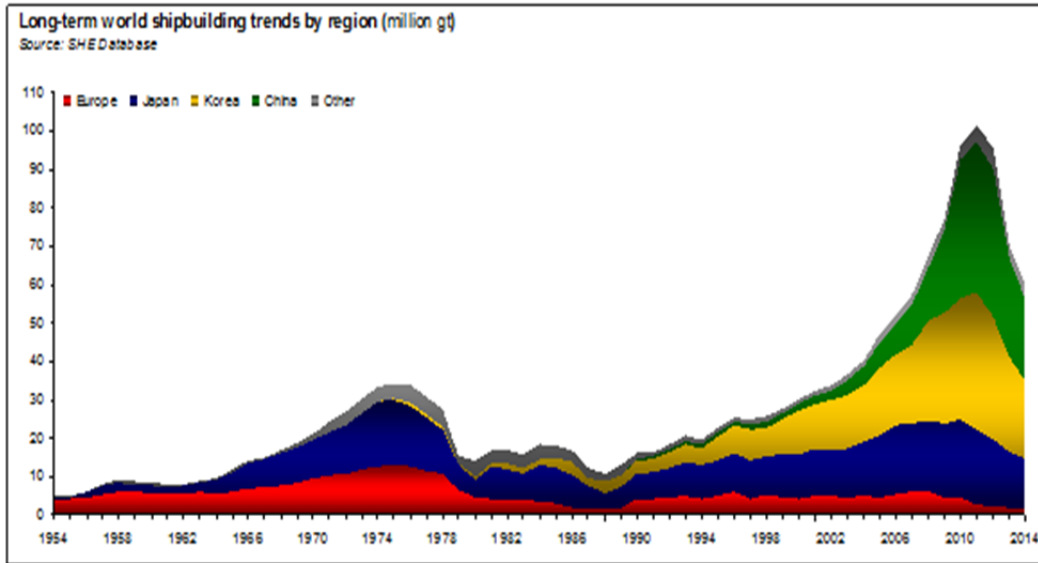
¹⁹⁹ This chapter by Michael McDevitt was greatly informed by the papers presented at the U.S. Naval War College's May 2015 conference, "China's Naval Shipbuilding: Progress and Challenges." The conference was sponsored by the War College's China Maritime Studies Institute (CMSI). In particular, the paper by Sue Hall and Audrye Wong was very valuable, as was the paper by Alexander Pape and Tate Nurkin. These and the other papers from the conference are being edited for publication as of this writing.

²⁰⁰ Yin-Chung Tsai, "The shipbuilding industry in China," OCED Journal-General Papers-Volume 20103, 2011, OCED Report, http://www.keepeek.com/Digital-Asset-Management/oecd/economics/the-shipbuilding-industry-in-china_gen_papers-2010-5kg6z7tg5w5l#page4.

²⁰¹ CGT is the preferred measure of work content within merchant shipbuilding, which takes into account the relative complexity of different ship types, to give a more accurate perspective on work content than deadweight (DWT) or gross tons (GT).

Korea's 15.6 million CGT. With world output (for vessels over 500 gross tons) at 52.5 million CGT, this gave China over 35 percent of world production. It has subsequently retained this leading position.

Long-term world shipbuilding trends by region^a



a. Sue Hall, managing director, Shipyard Economics Ltd.

China grew into a leading shipbuilder because hundreds of private yards opened to compete with state-run companies. The number of shipyards in China swelled to 1,647. As it turned out, this growth was a major contributor to a glut of global shipbuilding capacity, particularly in the area of low-technology dry-bulk and container vessels. (Dry-bulk ships carry raw materials such as iron ore and are much less complex than tankers or LNG carriers.) Triggered by the 2008 global economic crisis, all of Asia's shipbuilders—including China's—were eventually hit by a sharp decline in demand for new ships. Not only did new orders dry up; many existing orders were cancelled. In terms of CGT delivered, China's shipbuilding peak was in 2012; it now faces the reality that it must shed builders and exploit economies of scale by consolidating and creating mega-yards.²⁰²

²⁰² Jasmine Wang and Kyunghye Park, "China poised to gain control as shipyard shakeout looms," Bloomberg Business, August 12, 2013, <http://www.bloomberg.com/news/articles/2013-08-11/china-poised-to-gain-control-as-shipyard-shakeout-looms-freight>.

The future of China's shipbuilding: consolidation, mega-yards, increased complexity, and larger ships

According to *The Economist*, "Many Chinese firms have focused on making ships that are bigger, especially giant container vessels. In contrast, South Korean and Japanese yards have invested in new technologies and advanced engines to make ships of all sorts cleaner and more efficient. Such firms are not only growing, but also fetching premium prices."²⁰³ China is well aware of this trend and has begun focusing on quality above quantity. The director of the China Shipbuilding Industry Research Center put it clearly: China wants "... to move from a shipbuilding country to shipbuilding power."²⁰⁴

To that end, China will have to dramatically reduce capacity to remain competitive.²⁰⁵ While the global market for new construction shrunk because of reduced demand for new ships, in 2013 China remained in front of the pack for the orders that were placed. Yards in China won orders to make 47 percent of new global contracts in the first seven months of 2013. State-backed builders won almost three-quarters of those deals, helping China gain a 7.8-million-ton lead over South Korea, the second largest builder. Chinese shipyards and related companies employed about 671,564 people in 2012.²⁰⁶

China is in the process of stabilizing its shipbuilding, which means that fully one-third to one-half of the yards will probably have to disappear through acquisitions and closings. State-run companies are at an advantage because they have easier access to credit to pay workers, buy raw materials, and provide financing for clients. The China State Shipbuilding Corporation (CSSC), China Shipbuilding Industry Corporation (CSIC), and other government-backed companies won three-quarters of

²⁰³ "Too sick to sail: Ailing shipbuilders test China's commitment to reform," *The Economist*, July 13, 2013, <http://www.economist.com/news/business/21581753-ailing-shipbuilders-test-chinas-commitment-reform-too-sick-sail>.

²⁰⁴ Pradeep Rajan, "China's shipbuilding sector must consolidate to stay competitive: official," *Platts*, 7 November 2013, <http://www.platts.com/latest-news/shipping/ningbo-zhejiang/chinas-shipbuilding-sector-must-consolidate-to-27604700>.

²⁰⁵ *Ibid.*

²⁰⁶ *Ibid.*

all orders in the first half of 2014. There have already been bankruptcies and closures among private yards, while many others have simply disappeared.

Beijing is not letting its own state-owned yards fail. Instead, major consolidation is underway in both CSSC and CSIC, along with relocation of longer-established yards to modern, larger-capacity, newly developed shipyards. The goal of the consolidation is to be able to move up the complexity chain and challenge South Korea and Japan by building high-value, complex ships such as LNG tankers. Both CSSC and CSIC have merged and integrated some of their older shipyards; CSSC has constructed four new mega-yards. The Chinese government is also backstopping its flagship yards through military workloads. According to its website, “CSIC has a very clear strategy—namely to become China's leading provider of warships and related equipment and systems.”²⁰⁷

Hu Wenming, the former CEO of CSSC, argued that the company must deal with the global shipbuilding slump by building more advanced ships, including “high-tech ships such as naval vessels and maritime law enforcement ships.”²⁰⁸ His argument is financially sound: according to some estimates, “one aircraft-carrier order could likely generate as much work for a shipyard as ten bulk carriers or supertankers.”²⁰⁹

Civil-military integration: industry consolidation with Chinese characteristics

New mega-yards form a secure core of state-owned shipbuilding capacity. In 2013, China's State Council issued a three-year plan to aid the industry. The plan called for greater government support of shipbuilding, additional lending, mergers between

²⁰⁷ The group is able to design and build many different types of naval ships, including submarines, missile destroyers, and fleet replenishment vessels. See <http://www.csic.com.cn/en/Survey.htm>.

²⁰⁸ “胡问鸣:高端破局谋发展 助力蓝色中国梦 [‘Hu Wenming: Seek Development Through High-End Breakthroughs, Support the Blue China Dream’],” *国防科技工业 [Defence Science & Technology Industry]*, no. 7 (2013): 30–31.

²⁰⁹ Andrew Erickson and Gabe Collins, “China Carrier Module Highlights Surging Navy,” *The National Interest*, 6 August 2013, <http://www.andrewerickson.com/2013/08/china-carrier-demo-module-highlights-surging-navy/>.

subsidiaries, restrictions on capacity expansion, greater innovation, and the scrapping of older ships to create more domestic demand.²¹⁰

Civil-military integration is an important part of Beijing's plan to bolster the industry. As one document from State Council researchers notes, China needs to "expand plans for the war industry... to digest the [surplus] production capacity through integrating the military technology with the civilian technology."²¹¹ An entire section of China's three-year shipbuilding plan is in fact devoted to greater civil-military integration in shipbuilding.²¹² The plan explicitly argues that China's military shipbuilding industry must be rooted in the civilian shipbuilding industrial base, rely on civilian projects, and use civilian industry to overcome military industry bottlenecks. Moreover, the document stresses the importance of shared ship design and manufacturing technologies between the civilian and military shipbuilding industries. This suggests two elements of China's policy: (1) the government views civilian shipbuilding as essential to and intertwined with military shipbuilding; and (2) the government expects shipyard infrastructure, manufacturing processes, and technology to flow between the civilian and military sectors.

Clearly, not only is consolidation taking place in the state-owned sector, resulting in the emergence of a group of state-owned mega-yards, but in many instances these mega-yards are incorporating both merchant and military capabilities. Specifically:

- **Dalian Shipyard**, traditionally the largest Chinese shipbuilder, has a long record of military shipbuilding. Following its refit of China's first aircraft

²¹⁰ The primary source is State Development Planning Commission, "船舶工业加快结构调整促进转型升级 实施方案 (2013-2015 年) [Ship Industry, Accelerating Structural Adjustment, Promoting Transformation and Upgrading, Implementation Plan (2013-2015)]," 2013, <http://www.sdpc.gov.cn/zcfb/zcfbqt/201308/W020130806620700307575.pdf>. For a quick summary, see also "国务院出台首个产业升级方案：推船舶业军民融合 [The State Council Promulgated The First Industrial Upgrading Program: Push Civil-Military Integration in the Shipbuilding Industry]," *Shanghai Securities News*, August 5, 2013, <http://finance.sina.com.cn/chanjing/cyxw/20130805/015516341266.shtml>. For an English summary of the overhaul, see "China's State Council Urges Credit Support for Shipbuilders," August 5, 2013, <http://www.bloomberg.com/news/articles/2013-08-04/china-issues-plan-to-overhaul-troubled-shipbuilding-industry>.

²¹¹ Ma Shuping and Xiang Anbo, Enterprise Research Institute of the Development Research Center of the State Council, "Develop the Shipping Industry: It Is Urgently Necessary To Raise the Level of Technical Innovation and Industrial Restructuring and Upgrading," *Zhongguo Jingji Shibao*, 17 September 2014.

²¹² State Development Planning Commission, "船舶工业加快结构调整促进转型升级 实施方案 (2013-2015 年) [Ship Industry, Accelerating Structural Adjustment, Promoting Transformation and Upgrading, Implementation Plan (2013-2015)]." "国务院出台首个产业升级方案：推船舶业军民融合 [The State Council Promulgated The First Industrial Upgrading Program: Push Civil-Military Integration in the Shipbuilding Industry]."

carrier, it appears to be the shipyard that is building the first of the Chinese-designed-and-constructed aircraft carriers. With further aircraft carriers possibly following, this would provide Dalian with a significant military shipbuilding program. Expansion of Dalian's facilities has been a continuous theme since the construction of the "Dalian New Shipyard," which opened in the early 1990s.

- **Jiangnan Shipyard** is China's largest merchant yard, and has been ever since it relocated in 2008 to its new Changxing Island (Shanghai) site, which provided a vast increase in capacity. In addition to its merchant shipbuilding production, it has been busy with the construction of China's most sophisticated surface combatants. It built the six Type 052C destroyers, and has built or is building at least seven Type 052D destroyers (the so-called Chinese AEGIS). The first of the class was delivered in March 2014, and the second in May 2015. Five more are in progress. In addition, Jiangnan built the first two 10,000-ton cutters for the China Coast Guard.
- **Hudong Zhonghua**, in addition to its merchant shipbuilding production, is busy producing Type 054A frigates, including three for the Algerian Navy.
- **Guangzhou Shipyard International (GSI)** is traditionally much more of a merchant shipbuilder than a military one. But, it acquired Wenchong Huangpu (builder of Type 054A frigates and Type 056 corvettes) in March 2015. Huangpu Shipyard's frigate-building experience supplements GSI's more limited military experience, which has been with smaller vessels such as minesweepers and landing craft. Huangpu is also heavily involved in the production of cutters for the coast guard. GSI has recently built five supply ships and a 15,000-ton logistics ship.

These new mega-yards will almost certainly form a secure core of state-owned shipbuilding capacity.

Concluding thoughts on shipbuilding and China as a maritime power

By any measure, China is a global shipbuilding power. Although it has achieved this status through the production of less complex ships, the fact remains that despite the global downturn in shipbuilding, it continues to be a world leader in this area. Importantly, the leaders of China's shipbuilding industry are not resting on their laurels. They recognize that the market for low-complexity container ships and bulk carriers is not likely to grow appreciably for the remainder of this decade. China has to move up the "complexity" chain by being able to deliver the high-value classes of

ships, such as eco-friendly vessels, LNG carriers, and cruise ships that characterize Korean, Japanese, German, and Italian builders.²¹³

So, if China is still working to move up the shipbuilding complexity chain in terms of the classes of merchant ships it wants to build, how can it produce well-regarded complex warships? The answer seems to be that China *can* build complex ships but has not yet mastered the ability to build complex ships at a commercially competitive price like South Korean shipyards can. PLAN warships and submarines do not have to be commercially competitive in price, although even in this case there are exceptions; the type 054A frigates are priced attractively enough to be purchased by Algeria and Pakistan. Additionally, China's military shipyards appear to have access to the nation's best financial, technical, and human resources—a critical advantage over their commercial counterparts.

China's shipbuilding industry has unquestionably demonstrated the ability to produce modern warships and submarines, while at the same time continuing to lead the world in total shipbuilding output. Since the vast majority of China's warships and submarines are built in state-owned yards, it is unlikely that the contraction of China's shipbuilding industry—especially private yards—will harm its ability to deliver warships and submarines at the rate observed over the past decade. In fact, to keep the yards in business and make sure those jobs are not lost, naval and coast guard ship construction has increased since 2008.

In short, China is already a world leader in shipbuilding and aspires to become the world's foremost shipbuilder by the end of this decade. Whether or not it achieves this ambition, the goal of becoming a "maritime power" will not be held back by its shipbuilding capabilities.

²¹³ For an example of eco-friendly types of vessels see "Japanese Shipbuilders seek to regain edge lost to China, South Korea," *The Japan Times*, September 29, 2014, <http://www.japantimes.co.jp/news/2014/09/29/business/japanese-shipbuilders-seek-regain-edge-lost-china-south-korea/#.Vkzwh3mFND8>.

Chapter 7: China's Merchant Marine²¹⁴

Dennis J. Blasko

Introduction

Over the last three decades, China's merchant marine fleet has become a significant factor in the country's economic development and will continue to play a large role as China develops into a major "maritime power." Though the commercial shipping sector currently has structural inefficiencies and financial problems, and shares in the nationwide corruption challenge, it appears to be poised for additional growth in the future. As the industry grows, however, it will also undergo reorganization through mergers, acquisitions, and company failures. The large structure of over 200 major enterprise groups, subsidiaries, and companies is likely to become smaller even as the size of the fleet expands to carry more of China's and the world's cargo.

How large is China's merchant fleet? No matter how you measure it, it's big.

Depending on what the unit of measurement is used, China's merchant marine is number one, two, or three in the world.

²¹⁴ This chapter is an abridgment of a paper written by Dennis J. Blasko, a retired lieutenant colonel in the U.S. Army and a senior research fellow with CNA's China Studies division. Mr. Blasko is a former U.S. Army attaché to Beijing and Hong Kong, and is the author of *The Chinese Army Today* (Routledge, 2006). The complete paper can be found at https://www.cna.org/cna_files/pdf/China-Merchant-Marine.pdf.

Counting by number of ships

Based on the data shown in Table 3, if one counts the number of ships owned by *and* registered in China and Hong Kong (flying Chinese and Hong Kong flags), China is first in the world. Or, if one counts the number of ships owned by and registered in China and Hong Kong (flying Chinese and Hong Kong flags) *plus* those owned by China and Hong Kong and registered in *another* country (flying the other country's flag), China is also first in the world.

Table 3. The number of ships in the top 10 merchant fleets registered in all countries

Country	Total	(Minus) Foreign owned	(Plus) Registered in other countries	Total owned and registered in country <u>plus</u> those owned and registered in other countries
Japan	684	0	3,122	3,806
China	2,030	22	1,559	3,567
Greece	860	42	2,459	3,277
Hong Kong	1,644	476	341	1,509 (Total owned by China and HK, flying all flags, is 5,076)
Norway	585	81	974	1,478
Russia	1,143	155	439	1,427
Indonesia	1,340	69	95	1,366
Turkey	629	1	645	1,273
Panama	6,413	5,162	1	1,252
ROK	786	31	457	1,212
U.S.	393	85	794	1,102

Source: CIA World Factbook.

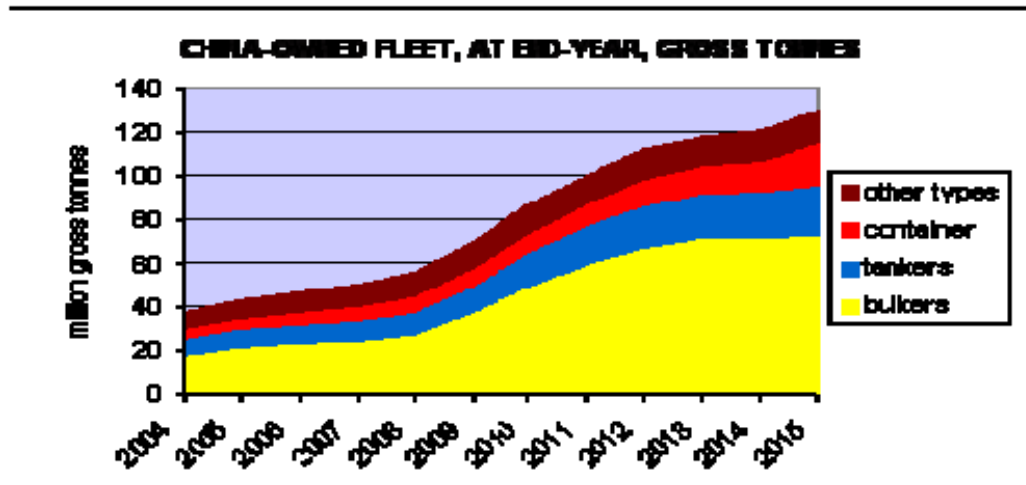
Counting by gross tonnage

However, if the unit of measure is switched from ship count to *gross tonnage*, British expert Richard Scott from the China Maritime Centre, University of Greenwich, calculates that Chinese-owned ships rank third in the world, behind Greece and Japan.

The merchant fleet has grown at a phenomenal rate. Scott reports that the Chinese-owned fleet tripled in size from 2004 to 2014, due to purchases of second-hand ships from foreign countries and the acquisition of a vast number of newly built

ships, with the bulk carrier fleet undergoing the most rapid growth. At the same time, the average vessel size grew from 9,859 GT to 18,242 GT, an 85 percent increase, as newer ships were added to the fleet. At the end of 2014, 80 percent of China’s tankers were less than 10 years old, while the corresponding percentages were 68 percent for bulk carriers and 51 percent for container ships. Scott states that after two consecutive years (2009 and 2010) of 25 percent surges in growth, “a marked deceleration has occurred,” down to only 2 percent in 2014.²¹⁵

China-owned fleet, at end-year, in gross tonnage^a



Source: Clarkson’s Research. See “China-owned ships: fleet expansion accelerates,” *International Shipping News*, March 15, 2016, <http://www.hellenicshippingnews.com/china-owned-ships-fleet-expansion-accelerates/>.

a. Includes all tankers; bulk carriers 10K dwt & over excludes Hong-Kong owned.

With regard to registration, Scott observes that 63 percent of China’s merchant fleet was registered in foreign countries in 2013, up from 49 percent 10 years earlier. (The *CIA Factbook* indicated in 2010 that the number was 56 percent, consistent with the rising trend described in Scott’s article.) Scott’s conclusion is: “It has been clear that the Chinese government’s intention is to achieve a larger proportion of the country’s seaborne trade transported *by ships owned by companies based within China*”

²¹⁵Richard Scott, “China-owned ships: A Rapid Rise to Become One of the World’s Largest Fleets,” *International Shipping News*, reprinted in *Hellenic Shipping News*, March 17, 2015, <http://www.hellenicshippingnews.com/china-owned-ships-a-rapid-rise-to-become-one-of-the-worlds-largest-fleets/>. In his article, Scott explains how his analysis differs from analysis using the data provided by the United Nations Conference on Trade and Development, which are compiled in DWT. Furthermore, he notes, “When UNCTAD changed data providers in 2012, the identified China-owned fleet’s deadweight capacity jumped by 53 percent in just one year.”

(emphasis added). The Chinese government's target, reportedly, is for as much as 85 percent of the foreign crude oil purchased by China to be carried by Chinese-controlled ships. China is apparently making great progress toward this goal, as indicated by the fact that of the 625 ships on order for Chinese ship owners at the end of 2014, approximately 80 are VLCC's oil tankers. Once these ships are actually delivered, China will become the largest tanker owner by owner nationality. Most of these purchases are scheduled for delivery by 2017. China is clearly bent on making certain that it has the ability to control the shipment of China-bound oil under any international circumstances.²¹⁶

Counting by deadweight tonnage

Finally, a third way to measure the size of a country's merchant fleet is based on *deadweight tonnage*. By that measurement, according to United Kingdom government statistics, in 2014 China ranked eighth for registered ships (100 gross tons and over) and Hong Kong was fourth, as shown below. Adding China's and Hong Kong's DWT totals yields a total of 217.3, placing it second, behind Panama.

1. Panama (328.9 DWT in millions)
2. Liberia (194.2)
3. Marshall Islands (172.0)
4. Hong Kong (150.4)
5. Singapore (114.2)
6. Malta (86.3)
7. Greece (75.1)
8. China (66.9)
9. Bahamas (64.8)
10. UK (36.8)²¹⁷

²¹⁶ Ibid.

²¹⁷ "World fleet registered trading vessels of 100 gross tons and over," <https://www.gov.uk/government/statistical-data-sets/fle05-world-fleet-registered-vessels#table-fle0502>. According to this source, Japan was not in the top 10, with 30.0 million DWT. The Statistics Portal comes up with a different DWT listing, according to ships' country of domicile:

Obviously, depending on the unit of measure (ships or tonnage), and how the units are counted (by country or by registration), country rankings change from year to year. Nonetheless, by any methodology, especially if Hong Kong's merchant fleet is added, China ranks at or near the top in every category.

The Chinese Ministry of Transport's numbered 2,030 ships in 2010 and 2,600 ships in 2014, which suggests about a 30 percent growth rate for the merchant fleet over this five-year period. In this same time period, the UK website shows tonnage growing from 50.9 million DWT to 66.9 million DWT, about a 31 percent rate of growth. Thus, both sources (Chinese and British), using different means of measurement, end up with a similar growth rate for the sector.

The Shanghai International Shipping Institute's study entitled "China Shipping Development Outlook 2030" concludes that China will account for about 17 percent of global shipping in 2030. Without specifying a total number of ships, the study predicts that bulk cargo carriers will expand to 70 percent of the fleet, oil tankers will increase slightly to 18 percent, and container ships will drop slightly to 9.5 percent. A percentage for roll-on roll-off (ro-ro) ships was not mentioned specifically, but "roll-on-roll-off shipping" will be important to the business efficiency of major ports.

Significantly, container throughput in China is expected to nearly triple, to 505 million TEUs.²¹⁸ Shipping enterprises will expand their services from "ocean carrier" to "global logistic service provider." China's port infrastructure will also expand.²¹⁹

1. Greece (250.3 million); 2. Japan (228.9); 3. China (144.5); 4. Germany (123.6); 5. ROK (72.9); 6. U.S. (56.3); 7. Hong Kong (48.6); 8. Taiwan (44.5); 9. Singapore (41.5); and 10. Norway (40.0). See "Deadweight tonnage of world merchant fleets by country of domicile in 2013 (in millions)," <http://www.statista.com/statistics/263889/dwt-of-merchant-fleets-worldwide-by-country-of-domicile/>.

²¹⁸ TEU stands for "20-foot-equivalent unit" or essentially one container—i.e., one TEU equals one container.

²¹⁹ According to the Shanghai International Shipping Institute, China's port infrastructure will evolve to reflect the following: "Cargo throughput at Chinese ports will double to exceed 25 billion tons in 2030, but the cargo mix will change greatly. While the ratio of container cargo will rise from the current 18.6% to 26.8%, the ratio of dry bulk cargo will fall below 50% due to slower shipping growth of coal and iron ore, the slowdown of shipping demand for domestic trade being the main reason. Container throughput at Chinese ports will reach 505 million TEU in 2030 with an average annual growth rate of about 6%, which is ensured by the fast increase of container shipping along both the coast and inland rivers....The following ranking is expected in terms of container throughput: Shanghai (52.68 million TEU), Qingdao (43.15 million TEU), Ningbo-Zhoushan (37.27 million TEU), Tianjin (32.3 million TEU), Shenzhen (30.24 million TEU), Guangzhou (30.07 million TEU), Dalian (27.86 million TEU), Suzhou (23.11 million TEU), Lianyungang (16.67 million TEU) and Xiamen (13.24 million TEU). Seven port clusters will

The merchant marine and the PLA

An interesting projection in the Shanghai International Shipping Institute Forecast is that by 2030 “foreign-flagged ships will make up 85-90 [percent] of the ships for international shipping controlled by Chinese ship owners.” For national security reasons, however, “China will still take some measures to maintain a certain number of Chinese-flagged ships.”²²⁰ In short, Chinese-owned ships increasingly will be registered in countries other than China, but an unspecified number of Chinese-owned ships will remain Chinese registered—clearly those that Beijing wants to ensure it can call on and control in any circumstances. These presumably will include ships to be built or converted for military purposes.

The number of Chinese merchant vessels on the high seas and their importance to the national economy has already affected how the PLA operates. The escort mission in the Gulf of Aden, which has lasted an unprecedented length of time (eight-plus years), demonstrates how seriously China’s civilian and military leaders take the protection of China’s merchant fleet; so does the 2015 PLA defense white paper, which emphasized SLOC protection—including, one assumes, the potential new SLOC through the Arctic. The second Arctic voyage of the COSCO ship *Yong Sheng*, registered in Hong Kong, reminds us that China will constantly be looking to shorten shipping distances and lower costs along its trade routes.²²¹

China’s merchant marine is becoming more integrated into routine PLA operations, compensating for shortcomings in the PLA’s organic, long-distance sealift capacity. Civilian ships routinely participate in PLA exercises and support troop and unit movements for all services. Their participation will increase as more civilian ships built to national defense specifications enter into the fleet and as the PLA operates farther from China’s coasts.

be formed on China’s coast in 2030, namely the port cluster in east Liaoning province, Tianjin-Hebei port cluster, port clusters in the Shandong peninsula and north Jiangsu province, port cluster in the Yangtze River Delta, southeast coast port cluster, and the port clusters in the Pearl River Delta and southwest coast. Three or four super container hub ports will be formed, including Shanghai, Qingdao and Hong Kong. More than 95% of coastal ports will integrate resources with other ports in the cluster in the form of capital injection, strategic cooperation, etc.” Shanghai International Shipping Institute, “SISI releases 2030 China Shipping Development Outlook,” May 4, 2015, <http://en.sisi-smu.org/index.php?c=article&id=13534>.

²²⁰ Ibid.

²²¹ Jason Jiang, “Cosco ship starts second Arctic voyage,” *Asia Shipping Media*, July 9, 2015, <http://splash247.com/cosco-ship-starts-second-arctic-voyage/> and “Yong Sheng,” Vesseltracker.com, <http://www.vesseltracker.com/en/Ships/Yong-Sheng-9243813.html>.

It seems likely that for multiple reasons most of the ships retrofitted or newly built to military specifications will be small or medium-size vessels and not the giant oil, container, and ore transports in the fleet's inventory. Large carriers likely are committed to long-distance, international routes, making them less available for military purposes and causing greater financial losses to the company if diverted. Furthermore, small to medium-size ships may be able to operate at more-austere ports and harbors than the fleet of giants that carry hundreds of thousands of tons of cargo.

On the other hand, the four newly built 36,000-ton-displacement civilian ro-ro ships are roughly twice as large as the four new state-of-the-art Type 071 Yuzhao-class amphibious transport docks in the South Sea Fleet. The near-simultaneous introduction of these two types of ships reflects their complementary missions. The Type 071s will likely be used in the initial delivery of amphibious assault troops to the beachhead, while the civilian ro-ros will be used to deliver second- or third-echelon troops in larger numbers to secure or capture ports and harbors. The construction of semi-submerged barges demonstrates that the PLA also is preparing for contingencies where port facilities are damaged. Likewise, the over-shore delivery of fuel using military or civilian tankers and pipeline units suggests that the PLA does not necessarily assume it will capture ports and associated infrastructure intact.

The *Bohai Emerald Bead*, 36,000 T Ro-Ro (the first ship of its kind to be built in China)



Photo from China Defense Blog <http://china-defense.blogspot.com/search?q=Bohai+Emerald+Bead%2C+>

The growth and modernization of China’s civilian merchant marine fleet give PLA planners more options and capabilities than they had only a decade ago. The dual-use development of the merchant marine fleet and port infrastructure is an example of the importance of military-civilian integration to both the Chinese economy and the PLA. As we watch how the PLA changes in the coming years in order to operationalize its objective to “abandon” the “traditional mentality that land outweighs sea,” we should also monitor how the merchant marine contributes economically to China becoming “a major maritime as well as land country,” along with the merchant fleet’s potential to support Chinese military operations away from China’s home waters and shores.

Conclusion

During the past 10 years, the China-owned fleet has more than tripled in size. This pace of growth has been faster than that seen in the entire world fleet, and has covered all ship types. The bulk carrier fleet almost quadrupled between 2004 and 2014. The tanker and container ship fleets tripled in size over the same period. As a result of this rapid growth, China’s current merchant fleet is composed of relatively young ships. At the end of 2014, 80 percent of its tankers were less than 10 years old (built in 2005-2014). The comparable figure for bulk carriers was 68 percent, and for container ships 51 percent. Newer ships are normally more efficient to operate and have added environmental protections.²²²

The Chinese government has been actively involved in this growth. More recently, presumably in response to the Party’s decision for China to become a maritime power, the Ministry of Transport published plans for upgrading the shipping industry, improving services and competitiveness. The stated aim is to build an efficient, safe, and environmentally friendly Chinese shipping system by 2020.

The Chinese government’s goal is for a larger proportion of its seaborne trade to be transported by Chinese-owned ships (not necessarily Chinese flagged, as we have seen). While economic considerations make it difficult to forecast growth, every indication is that China’s desire to become a maritime power will not be held at risk by its merchant marine. It already is one of the top two or three merchant marines in the world, and the Ministry of Transport’s goals for the future strongly suggest continued growth and modernization, as does President Xi Jinping’s vision of a 21st-century Maritime Silk Road. China’s current merchant fleet is already world class,

²²² Scott, “China-owned ships.”

and if Beijing's plans come to fruition it will become the preeminent merchant fleet in the world.²²³

²²³ Ibid.

Chapter 8: “China’s Fishing Industry: Current Status, Government Policies, and Future Prospects”²²⁴

Zhang Hongzhou

Introduction

China’s fishing industry has expanded dramatically over the past four decades. China is now by far the world’s biggest producer of fishery products (live fishing and aquaculture). In 2015, China’s total fishery production reached 66.9 million metric tons, representing over one-third of the world’s total fishery production. China’s gigantic fishing industry is supported by the largest fishing fleet in the world, with close to 700,000 motorized fishing vessels, some 200,000 of which are marine (sea-going) with another 2,460 classified as distant-water (i.e., global, well beyond China’s seas) fishing vessels in 2014.²²⁵

China’s fishing industry, however, has increasingly become the victim of its own success. The phenomenal growth in the fishing industry has resulted in the overfishing of traditional Chinese fishing areas—a serious problem compounded by pollution (due to industrialization), land reclamation, and the expansion of aquaculture. Faced with declining fish stocks, Chinese fishermen, encouraged by

²²⁴ This chapter is an abridgment of a paper written by Professor Zhang Hongzhou for a conference on China as a maritime power. A copy of his paper is found at https://www.cna.org/cna_files/pdf/China-Fishing-Industry.pdf. Professor Zhang is an associate research fellow with the China Programme at the S. Rajaratnam School of International Studies (RSIS), Nanyang Technological University, Singapore. His main research interests include China and regional resources security (food, water and energy), agricultural and rural development, China’s fishing policies, and maritime security.

²²⁵ “Transform Development Mode, Become a Strong Distant-water Fishing Nation,” *China Fishery Daily*, 6 April 2015. Online version is available at http://szb.farmer.com.cn/yyb/images/2015-04/06/01/406yy11_Print.pdf.

government policy, now venture into disputed waters in the East and South China Seas, as well as other countries' EEZs and the high seas, to ply their trade.

Overview of China's fishing industry

As shown in Table 4, in 2014 China caught over 18 percent of the global total marine fishery production.

Table 4. Major marine catch producers in the world, 2014

Rank	Country	Production (metric tons)	% of world
1	China	15,054,393	18.2
2	Indonesia	6,088,197	7.4
3	United States	4,963,001	6.0
4	Russian Federation	4,007,772	4.8
5	Japan	3,722,470	4.5
6	Peru	3,574,516	4.3
7	India	3,418,821	4.1
8	Vietnam	2,711,100	3.3
9	Myanmar	2,702,240	3.3
10	Chile	2,592,817	3.1
11	Norway	2,455,518	3.0
12	Philippines	2,140,831	2.6
13	South Korea	1,728,313	2.1
14	Thailand	1,559,746	1.9
15	Malaysia	1,462,206	1.8

Source: FAO (Food and Agriculture Organization of the United Nations) database, 2016, available at http://www.fao.org/figis/servlet/SQServlet?file=/work/FIGIS/prod/webapps/figis/temp/hqp_7392337327916307517.xml&outtype=html.

Fishing is very important to China's economy. The total value of China's fishing industry reached RMB 2 trillion in 2014, which was about 1000 times higher than that of 1979 (RMB 2 billion). The annual value added of the fishing industry was RMB 972 billion in 2014.²²⁶ Fishery products play an important role in China's international trade as well. China has been the biggest exporter of fishery products in the world since 2002. In 2015, China exported over 4 million tons of fishery products, with a total value of roughly USD 20 billion, making fishery products China's top agricultural export.

Between 1979 and 2014, the number of people working in China's fishing industry increased by more than 10 million. The sector employed nearly 14.3 million people in 2014. (See Table 5.) Among them, slightly over 7.1 million are traditional fishermen. Based on official statistics, the net annual income of fishermen increased from RMB 93 in 1978 to RMB 14,426 in 2014,²²⁷ which was significantly higher than the annual income of farmers in the same year (around RMB 9,800).²²⁸ As a result of this income difference, the fishing industry continues to attract more peasant workers from the China's inland provinces.

Table 5. Fishing workforce and fishing fleet in China

Number	1979	2014
Motorized fishing vessels ^a	52, 225	68,6800
People in fishing workforce	2.65 million	14.29 million

Source: China Fisheries Yearbooks 1979 and 2015.

^a Motorized ships, including inland catch vessels, vessels for aquaculture, fishing transportation vessels, and marine catch vessels.

China is not only the biggest fishery producer, but also the largest fish processor. In 1979, it had only 52 fishing processing companies,²²⁹ which employed 15,229 people and had an annual processing output of less than 0.7 million tons. At the end of 2014, China had 9,663 fishing processing companies, with annual production of 20 million metric tons, processing locally produced as well as imported fishery products

²²⁶ *China Fisheries Yearbook 2015* (China Fishery Yearbook Publishing House, 2015), <http://www.chinabookshop.net/china-fishery-yearbook-2015-p-22662.html?osCsid=7tveu48iu51mlir5qe4ft1vht6>.

²²⁷ Refer to *People's Daily* at <http://english.people.com.cn/90778/7691714.html>.

²²⁸ *China's Finance and Economic News, 2011*, available at http://www.cfen.com.cn/web/cjb/2011-12/29/content_828558.htm.

²²⁹ Back in 1978, these companies were called "units" (*danwei*).

for local sale and export. Around 400,000 people, many young women, are estimated to work in China’s fish-processing sector, which is concentrated around Qingdao in Shandong Province, around Dalian in Liaoning Province, and in Fujian Province.²³⁰

Beneath the phenomenal expansion of the overall production of China’s fishing industry are two major structural changes. One is the remarkable shift of the fishery production structure from catch dominance to aquaculture. In 1978, inland and marine catch represented nearly 74 percent of the country’s total fishery production and aquaculture only contributed 26 percent. However, in 2014, the trend was completely reversed, with aquaculture accounting for nearly 74 percent of the country’s total fishery production.

The second structural change is the outward expansion of China’s marine fishery sector, which is evident on two fronts: the shift from inshore fishing to offshore fishing, and the expansion of the county’s distant-water fishing (DWF) fleet (see Table 6 for definitions).

Table 6. Definitions of inshore, offshore, and distant-water fishing in China

Inshore fishing	Fishing in the Bohai, Yellow Sea, and China's territorial sea in the East China Sea, and the area east to E112 within 80 meter and west to E112 within 100 meter depth contours (isobath) in the South China Sea.
Offshore fishing	Fishing the area outside of China's territorial sea in the East China Sea (including the waters near Diaoyu/Senkaku islands) and the area east to E112 beyond 80 meter isobath and west to E112 beyond 100 meter isobath in the South China Sea.
Distant-water fishing (DWF)	China defines DWF as citizens, legal entities, and other organizations of China engaging in marine fishing and its processing, supply, and product transportation activities on the high seas and in the sea areas under the jurisdiction of other countries, but does not include fishing activities in the Yellow Sea, East China Sea, or South China Sea.

Source: Fisheries Law of the People's Republic of China.

²³⁰ Refer to <http://www.worldfishing.net/news101/regional-focus/chinese-processing-industry-to-develop-domestic-market#sthash.xk2Dfvwa.dpuf>.

As a sub-sector of China's agricultural industry marine fishery has been assigned four major policy objectives:

- First and most important is ensuring an adequate supply of fishery products in the face of rising demand, including high-quality protein for human consumption and raw materials (fish feed) for related industries.
- The second objective is enriching fishermen's lives and earning foreign reserve. Development in the marine fishery sector can contribute to fishermen's income growth. Given the comparative advantage of China's marine fishery sector, it has great potential for exports, which then generate foreign reserves for the country.
- The third objective is protecting the marine environment through sustainable fishing. Overfishing, pollution, and introduced species have had devastating effects on the marine environment. Sustainable fishing practices—including construction of ocean artificial reefs, restocking, improving water quality, and other measures—contribute to protection of the marine environment.
- The fourth objective is serving the country's political and strategic interest. Promoting the development of the marine fishery sector will contribute to safeguarding China's maritime interest in the disputed waters.

While objectives appear to balance conservation and cooperation with strategic interests and food security, in practice the emphasis has been on objectives that are security related. As a result, conservation and international cooperation have suffered.²³¹

Encouragement from the top

Fishing and Chinese "food security"

Fishing is an integral portion of overall national food security goals. Chinese consumers are switching from grain-based diet to nutrition-oriented food consumption, and fish have become an important source of high-quality animal

²³¹ Yue Dong-dong and Wang Lu-min, "Analysis of the Current Status of Strategic Studies on China's Fishery Industry and a Preliminary Reflection," *Journal of Agricultural Science and Technology*, 2013, No. 15 (4): 168-175. The same view is also expressed by Tong Chunfeng in her book, *Marine Fishery Transition and Fishermen Transformation* (Qingdao: Ocean University of China, 2007).

protein. An important rationale for strengthening China's DWF sector is that it must explore and utilize ocean resources in the high seas in order to meet domestic needs.²³² In the 12th Five-Year Plan for Fishery Development (2011-2015), meeting the rising demand for fishery products was listed as the fundamental objective of China's fishing industry.²³³ In 2011, fishery products were officially added to China's "vegetable basket."²³⁴

From 1992 to 2012, consumption of fish in China's urban and rural areas more than doubled.²³⁵ Fish now make up about one-third of Chinese consumers' animal protein intake, much higher than the global average.²³⁶ China's growing and increasingly affluent population wants more protein in its diet, while the Chinese government wants to maintain food self-sufficiency. Facing the mounting challenge to achieve national food security, the Chinese government has recognized the importance of sea food, dubbing the oceans as China's "blue granary or a marine-based food security."²³⁷ China is hoping that its fishing industry, which enjoys a global comparative advantage, will play a bigger role in feeding its people.

Fishing and the Chinese economy

In China's coastal regions, particularly those less developed areas, both marine fishery and fish processing are very important to local economic growth. In recent years, China's overall agricultural trade registered a huge deficit—over 50 billion USD in 2014. Fish kept that deficient from being worse, because China remains the world's biggest exporter of fishery products. In 2015, China's total export of fishery

²³² Ji, Xiaonan, Shenli Liu, and Task Force, "To Support Distant Water Fishing as a Strategic Industry," *China National Conditions and Strength*, no. 9 (2010).

²³³ Refer to China's 12th Five Year Plan on Fishery Development, available at http://www.moa.gov.cn/zwllm/ghjh/201110/t20111017_2357716.htm, accessed on 23 April 2012.

²³⁴ The Ministry of Agriculture initiated the "vegetable basket project" in 1988 in a bid to improve production and marketing of vegetables and foodstuffs.

²³⁵ Chinese consumers, especially the wealthy middle class, are increasingly concerned about the quality and safety of these fishery products amid widespread food safety scandals in China, and they demand more wild marine catch. In the past, fishery products from Chinese DWF sector were predominantly sold at international markets, particularly to developed countries, including Japan, European countries, and the United States. However, in recent years, with growing demand from Chinese wealthy middle class for high-quality marine catch, over 60% of the catch from the country's DWF have been sold at domestic market.

²³⁶ China's Fisheries Yearbook 2015, pp. 283; FAO database, 2015.

²³⁷ Qing Hong, "Research summary on the construction of marine food system," *Marine Sciences* 39, no. 1 (2015).

products reached USD 20 billion.²³⁸ Not only do fishery products help reduce the agricultural trade deficit, but fishing provides a good living in many of China's coastal regions. As a result, economic planners keep the pressure on by setting a very high growth rate for the fishery sector. For example, China's Hainan Province, which relies heavily on the marine catch sector for economic development, set an annual growth target of 13.8 percent for its fishing industry in its 12th Five-Year Plan for Fishery Development. It also intends to boost the annual production value of the fishing industry to RMB 45 billion in 2015 and its share in the province GDP to 12 percent.²³⁹

In terms of fishery trade, China expects that the sector will continue to expand. According to *China's 2015 Agricultural Report*, in the next 10 years, China's fishery sector will continue to expand and the country will remain the leading exporter for fishery products. It forecasts that fishery production will reach 73 million tons in 2020 and 77 million tons by 2024, and that catch production will reach 17 million metric tons.²⁴⁰

In short, the government is counting on continued growth in the fishing sector—and since China's coastal regions are largely “fished out,” this means that fishermen must go farther out to sea to make a living. During his visit to the Tanmen fishing town in 2013, Xi Jinping urged Chinese fishermen to “build bigger ships and venture even further into the oceans and catch bigger fish.”²⁴¹ In practical terms, that meant offshore fishing near the Spratly Islands and distant-water fishing.²⁴²

The importance of fishing in the Spratlys

In 1999, China introduced a fishing ban in South China Sea. This annual fishing ban lasts from May 16 to August 1, covering areas north of the 12th parallel, including Scarborough Shoal (Huangyan Island). Since the Spratlys are south of this line they

²³⁸ For more information, see http://news.xinhuanet.com/fortune/2014-06/30/c_1111384848.htm.

²³⁹ Refer to http://www.gov.cn/gzdt/2011-03/10/content_1821502.htm.

²⁴⁰ See http://www.agri.cn/V20/SC/jjps/201504/t20150421_4538195.htm.

²⁴¹ Minnie Chan, “Xi's fishermen visit seen as warning to South China Sea neighbours,” *South China Sea Morning Post*, 10 April 2013.

²⁴² Another point worth noting is that lobbying by the industry and local government is also one of the factors contributing to the development of distant-water fishing in China. The government of Qingdao, which is the leading processor and exporter of high-value cold fish is a key force behind the “blue granary” concept, and companies such as the China National Agricultural Development Group are also using the food security narrative to gain more fiscal support from the government for their expansion.

are not covered by the ban and, Chinese fishermen receive an additional fishing fuel subsidy, called the Spratly Islands Special Fuel Subsidy as an incentive to fish there. When the Spratly fuel subsidy was first introduced in 1995, not many Hainan fishermen ventured that far south. Over the past 20 years, this has changed dramatically. As fish stocks in China’s inshore waters have been depleted and bigger and more powerful ships have been introduced, more fishermen are applying for fishing permits to fish in waters near the Spratly Islands.

In 2013, China established a “South China Sea fishery resources survey and evaluation programme.” A 2015 report from this programme estimates that the South China Sea mid-layer total fishery stock is about 73–172 million tonnes. This estimate provides credible scientific evidence that justifies China’s continued focus on fishing in the Spratlys. Of course, the Spratlys are also a valuable fishing ground for Southeast Asian countries—especially Vietnam, Indonesia, and Philippines. As a result there is growing competition for access to Spratly fishing grounds, which means that fishing disputes and the detention of “illegal” fishermen by all the nations involved will continue to be a source of tension. Facilitating access for its fishing fleet is one motivation behind Beijing’s creation of new “island bases” in the Spratlys.

The growth of distant-water fishing

Over the past three decades, since China sent its first DWF fleet to West Africa in 1985, growth of China’s DWF sector has been remarkable. The country’s annual production of distant-water fishing reached 2 million tons in 2014. As already mentioned China has the largest distant-water fishing fleet in the world: 2,460 vessels strong, with more under construction. China’s distant-water fishing fleet is now operating in 40 countries’ EEZs (primarily Asian waters, particularly Indonesia and Myanmar, followed by Africa).²⁴³

In the early 2000s, over 90 percent of China’s DWF vessels operated in coastal waters of foreign countries.²⁴⁴ Today, however, more DWF fishing has shifted to the high

²⁴³ “Transform Development Mode, Become a Strong Distant-water Fishing Nation,” *China Fishery Daily*, 6 April 2015, available at http://szb.farmer.com.cn/yyb/images/2015-04/06/01/406yy11_Print.pdf.

²⁴⁴ Guifang Xue, “China’s Distant Water Fisheries and its response to flag state responsibilities,” *Marine Policy* 30 (2006): 651-658.

seas, to look for squid, tuna, and saury.²⁴⁵ China's is starting to focus on waters around Antarctic. For instance, in 2015, Liu Shenli-Chairman of the China National Agricultural Development Group, said, "The Antarctic could provide almost 100 million metric tons of krill products annually, equal to the world's current fishing output, and China should aim to harvest one to two million tons."²⁴⁶

A Chinese distant-water fishing vessel, Zhoushan port in Zhejiang Province, China



Photo by author.

Given the gigantic scale of China's fishing industry, this seaward expansion of China's marine fishing sector inevitably has a huge impact on the fishing industry of other regional and global nations; already under pressure from overfishing. According to an estimate by the U.N. Food and Agriculture Organization (FAO), over 70 percent of the world's fish species are either fully exploited or depleted and the dramatic increase of destructive fishing techniques worldwide destroys marine

²⁴⁵ "Transform Development Mode, Become a Strong Distant Water Fishing Nation," *China Fishery Daily*, 6 April 2015. Online version is available at http://szb.farmer.com.cn/yyb/s/2015-04/06/01/406yy11_Print.pdf, accessed 5 March 2016.

²⁴⁶ See more from http://usa.chinadaily.com.cn/epaper/2015-03/04/content_19716649.htm.

mammals and entire ecosystems.²⁴⁷ Although China claims that the development of distant-water fishing has been based on cooperation with local governments and enterprises, and that China's DWF contributes positively to local economic development,²⁴⁸ there have been reports accusing China's distant-water fishing of contributing to overfishing in Africa as well as in the Northwest Pacific.²⁴⁹

The reliability of Chinese data is in question in the DWF area. In 2012, a study by the European Parliament concluded that the catch of China's distant-water fleets is estimated at 4.6 million tons per year globally for the 12-year period from 2000 to 2011, compared with an average of 368,000 tons per year reported by China to the FAO.²⁵⁰ One of the key reasons for the underestimation of annual marine catch production is the existence of a large number of "black ships"—fishing vessels without relevant legal permits.

Questionable data plus the official promotion of distant-water fishing by the Chinese government greatly worry the international community. A massive expansion of China's DWF will lead to localized depletions and declines in catch rates in fisheries around the world and jeopardize the livelihoods of locally owned small-scale fishermen in many poor countries. In October 2014, international suspicions about China's DWF seemed to be confirmed when the China Tuna Industry Group was preparing to float an Initial Public Offering (IPO). The draft prospectus stated that China would not crack down on companies engaged in illegal fishing because it never had in the past, and that catch limits set by the Regional Fisheries Management Organizations apply only to the country of China, not to actual Chinese fishing boats.²⁵¹ According to a 2015 report by Greenpeace, Chinese DWF companies—including the largest one, China National Fishery Cooperation—are undermining the long-term sustainability of West Africa's fisheries by using unsustainable fishing methods. These IUU (Illegal, Unreported, and Unregulated) fishing practices include bottom trawling, illegal mesh size, underreporting and misreporting of vessel

²⁴⁷ United Nations Department of Public Information, "Overfishing: a threat to marine biodiversity," on the UN's webpage Ten Stories the World Should Hear More About, available at <http://www.un.org/events/tenstories/06/story.asp?storyID=800>.

²⁴⁸ China claims that, in West Africa alone, its DSF operation has contributed taxes and fees totaling over RMB 800 million and its DSF enterprises have been actively involved in local disaster relief and other socially responsible activities.

²⁴⁹ Tabitha Grace Mallory, Testimony before the U.S.-China Economic and Security Review Commission, *China as a Distant-water Fishing Nation*, 26 January 2012.

²⁵⁰ Roland Blomeyer, Ian Goulding, Daniel Pauly, Antonio Sanz, and Kim Stobberup, "The Role of China In World Fisheries," *Study Report*, European Parliament, 2012.

²⁵¹ Shannon Service, "Tuna firm's bungled IPO exposes China's flouting of global fishing rules," *The Guardian*, 27 October 2014, available at <http://www.theguardian.com/sustainable-business/2014/oct/27/toyo-reizo-shell-companies-fisheries-china-tuna-overfishing-oceans-ipo>.

tonnage and catch, transshipment at seas, harvesting of prohibited species, and inconsistencies in the automatic identification system. The same report also pointed out that China's DWF companies tend to ignore regional and international fishing regulations, and that overfishing is a common practice for them in both the high seas and foreign countries' EEZs.²⁵²

Fishermen and growth of maritime militia²⁵³

Fishing also carries out an important political and diplomatic function, particularly in waters where disputes exist. For decades, it has been no secret that China, Vietnam, Philippines, and other countries all consider fishermen to be important players in strengthening a country's maritime presence in the disputed waters. Financial and political support is provided to the fishermen to undertake fishing activities in the contested waters. And, on an ad hoc basis, countries deploy fishermen and fishing boats to confront each other during the maritime crisis. For instance, both China and Vietnam dispatched fishing vessels during the 2014 oil rig 981 row.²⁵⁴ Fishing incidents involving Chinese fishermen do not occur only in disputed waters in the South China Sea and East China Sea, where China has an interest in strengthening its maritime claims; rather, these incidents occur everywhere, including the EEZs of South Korea, Russia, North Korea, Indonesia, and Palau, or as far away as Argentina.²⁵⁵

²⁵² Greenpeace East Asia, "African Fisheries Paradise at Crossroads: Investigating Chinese Companies Illegal Fishing Practices in West Africa, May 2015, http://www.greenpeace.org/africa/Global/africa/graphics/Scam%20on%20the%20African%20Coast/AFRICA%E2%80%99S%20FISHERIES%E2%80%99%20PARADISE%20AT%20A%20CROSSROADS_FULL%20REPORT.pdf.

²⁵³ The militia is an armed mass organization not released from production. It is a reserve force of the PLA and the basis for the prosecution of a people's war under modern conditions. The General Staff Headquarters administers the building of the militia under the leadership of the State Council and the CMC. Under the command of military organs, the militia in wartime helps the standing army in its military operations, conducts independent operations, and provides combat support and manpower replenishment for the standing army. In peacetime, it undertakes the tasks of performing combat readiness support, taking part in emergency rescue and disaster relief efforts, and maintaining social order. See more at http://eng.mod.gov.cn/Database/WhitePapers/2004-09/07/content_4005644.htm.

²⁵⁴ See "A dangerous game in South China Sea," *Straits Times*, 30 May 2014, available at <http://www.straitstimes.com/news/opinion/more-opinion-stories/story/dangerous-game-south-china-sea-20140530>.

²⁵⁵ "Argentina sinks Chinese fishing boat Lu Yan Yuan Yu 010," *BBC News*, March 14, 2016, <http://www.bbc.com/news/world-latin-america-35815444>.

The Chinese government has made efforts to strengthen the fishermen's role in protecting the country's maritime interests in the disputed waters, and developing a strong fishing fleet is considered an integral to becoming a maritime power. In 2013, during the aforementioned Xi Jinping's visit to the Tanmen fishing town of Qionghai City in Hainan Province, he met the members of the maritime militia and told them that "the maritime militia members should not only lead fishing activities, but also collect oceanic information and support the construction of islands and reefs." He went on to also praise fishermen for protecting China's maritime interests in the disputed waters in South China Sea.²⁵⁶ Amid the rising tensions in the South China Sea and East China Sea, renewed attention is being given to the development of maritime militia. Some Chinese scholars and security experts have been advocating that maritime militia should be China's first line of defence in the South China Sea and East China Sea.²⁵⁷ In the past few years, several coastal cities have established maritime militia units.²⁵⁸

While development of maritime militia has long been stressed by Chinese leaders and military officials, thanks to Xi it gained new momentum. Since April 2013, numerous articles have been published in the *PLA Daily* and *National Defence Magazine* urging for more support to develop maritime militia forces. More financial resources were allocated to provide training for the fishermen and subsidy for building new fishing vessels.²⁵⁹ Consequently, many coastal cities have set up maritime militia units in recent years. In the past, China's maritime militia forces normally relied on renting the fishing vessels of the fishermen or fishing companies, but it appears that China is building a state-owned fishing fleet for its maritime militia force in the South China Sea. China's Hainan Province has ordered the building of 84 large militia fishing vessels for Sansha City.²⁶⁰

²⁵⁶ "President pays visit to Hainan fishermen," *China Daily*, 11 April 2012, available at http://usa.chinadaily.com.cn/2013-04/11/content_16394643.htm.

²⁵⁷ See more at <http://mil.huanqiu.com/Observation/2012-06/2862590.html>, and http://ngdsb.hinews.cn/html/2013-01/27/content_5_6.htm.

²⁵⁸ See the story of Guangdong's maritime militia force at http://news.ifeng.com/mil/jggcs/detail_2013_07/11/27393462_0.shtml; the establishment of maritime militia force in Pingtan of Fujian Province at http://fjnews.fjsen.com/2014-05/20/content_14115523.htm; and the maritime militia force of Sansha at <http://www.hinews.cn/news/system/2014/07/29/016828346.shtml>.

²⁵⁹ Wang Xinhai. 2014, "Paths to push forward new model of marine border defence and civil military cooperation" 推进新型海防建设军民深度融合发展的路径选择.

²⁶⁰ See <http://www.sansha.gov.cn/page.php?xuh=1624>; 关于在文昌木兰头规划建设三沙战略腹地 and 民兵渔船停泊港的建议.

Billboard on the main street of Tanmen Town, in Hainan of President Xi Jinping's April 2013 meeting with Tanmen fishermen



Photo by author.

But like so many other contradictions in China's fishery policies, the maritime militia policy is in conflict with the desire to curb overfishing and protect marine resources. The establishment of maritime militia across the country means that more financial support will flow to the marine fishery sector, which attracts more fishermen and further spurs the construction of new fishing vessels.

In addition, patriotism seems likely to be used as a pretext by some fishermen to cover their illegal fishing activities that harm marine ecology. For example, instead of fishing in the Spratlys, more and more fishermen have turned from fishing to harvesting endangered giant clams, for the giant clam handicraft and aphrodisiac industries which offer bigger profits.²⁶¹ Similarly, in the East China Sea, as prices of red coral have skyrocketed in recent years, fishermen from Zhejiang and Fujian have been going after the red coral in the waters near the disputed Diaoyu/Senkaku

²⁶¹ Zhang Hongzhou, "Chinese fishermen in disputed waters: Not quite a 'people's war,'" *Marine Policy* 68C (2016): 65-73, DIO: 2016. 10.1016/j.marpol.2016.02.018.

islands. Driven by huge profits, some Chinese fishermen even travel hundreds of kilometers to waters near Japan's Ogasawara to poach coral from the seabed.²⁶²

Raw giant clams, illegally harvested by fishermen from China's Tanmen Town, Hainan



Photo by author.

Marine fishery as a strategic sector

Fishing as an element of maritime power

Developing a strong marine fishery sector is considered an important element in China's effort to become a maritime power. In February 2013, China's State Council held the first ever meeting on marine fishery. One month later, the State Council published "Several Advices on Promoting Marine Sustainable and Healthy Development." This was the first state-level fishery development document, and clearly laid out the overarching approach, basic principles, target missions, and policy support for the development of the marine fishery, and linked marine fishery

²⁶² See more at <http://mil.huanqiu.com/Observation/2012-06/2862590.html> and http://ngdsb.hinews.cn/html/2013-01/27/content_5_6.htm.

development as a central element of China's maritime power building strategy. Expansion of China's distant-water fishing is an imperative if China is to become a global maritime power, because an improved DWF capability can help safeguard China's ocean interests.²⁶³ For example, DWF can play a critical role in times of crisis in foreign countries to evacuate overseas Chinese. It can also provide crucial assistance to the Chinese navy in terms of developing China's knowledge base with respect to prevailing local conditions, and it can provide logistics and supply to the navy when it is operating in the "far seas."²⁶⁴

In addition to DWF, the fishing industry is also of strategic importance because of the South China Sea contention. It is considered critical in protecting China's maritime interests and asserting China's territorial claims. Unlike the East China Sea, where the PLAN and the China Coast Guard are at the front line of asserting China's maritime claims in the disputed waters near the Senkaku/Diaoyu Islands, China has long pursued a policy of deploying fishermen as the first line of defense in South China Sea, particularly in waters near the Spratly Islands.²⁶⁵

Fishing and the 21st Century Maritime Silk Road

The "One Belt-One Road" strategy has become a central focus of China's international strategy, and strengthening fishing cooperation with regional countries is considered one of the key dimensions in building the 21st Century Maritime Silk Road. Officials from both the central government and China's major fishing provinces, such as Zhejiang, Shandong, Fujian, and Guangxi, have been actively advocating that fishing development needs to be incorporated into China's One Belt-One Road strategy.²⁶⁶

It is clear that since 2010, there has been a convergence of interests among all key players, including the central government, local government, and fishermen, to expand China's maritime fishery sector. Most notable is the shift in the attitude of the central government from restraining the development of marine fishery to actively promoting the expansion of marine fishery sector as it has come to attach

²⁶³ Phillip C. Saunders, Christopher D. Yung, Michael Swaine, and Andrew Nien-Dzu Yang, *The Chinese Navy, Expanding Capabilities, Evolving Roles* (Washington, D.C.: National Defense University Press, 2011), p. 84.

²⁶⁴ Ji, Xiaonan, Shenli Liu, and Task Force, "To Support Distant Water Fishing as a Strategic Industry," *China National Conditions and Strength*, no. 9 (2010).

²⁶⁵ Saunders et al., *The Chinese Navy: Expanding Capabilities, Evolving Roles*, p. 84.

²⁶⁶ See http://www.dnkb.com.cn/archive/info/20140909/072718147605167_1.shtml; also see *Zhoushan Daily News*, available at http://www.zhoushan.cn/zdzt/zjy/zxbd/201504/t20150422_709567.htm.

greater importance to the marine fishery sector in its national strategies, including safeguarding national food security, expanding the marine economy, constructing the 21st Century Maritime Silk Road, and building China into a maritime power.

The future: growing the fishing industry

Between 2011 and 2015, the central government's financial support to the fishing industry reached RMB 146 billion, which is 2.7 times of the amount from 2006–2010. While a large portion of the funding was dedicated to the fishing fuel subsidy program, a significant amount has also been spent on building new fishing vessels. Between 2011 and 2015, China built or reconstructed over 1,000 ships for DWF, and offshore fishing in the Spratly Islands and other areas.²⁶⁷ Even more financial support came from the local governments. For instance, Zhejiang Province allocated over RMB 1.8 billion to build or reconstruct marine fishing vessels between 2011 and 2015, and Fujian Province provided at least RMB 1 billion to support the development of modern marine fishery from 2012 to 2015.²⁶⁸ Under its “Ten Thousand Fishing Vessel Rebuilding Programme,” Jiangsu Province allocated RMB 178 million to support the reconstruction of over 700 vessels in 2014.²⁶⁹

Another key aspect of growth is the decision to control the intensity of inshore aquaculture and promote offshore *aquaculture-ocean farming*.²⁷⁰ Rapid expansion of China's aquaculture has contributed greatly to China's food security, but intensive farming practices and overuse of chemical inputs have led to serious environmental pollution and raised food safety concerns. As a result, China sees ocean farming as an important alternative for future development.²⁷¹

²⁶⁷ China Fisheries Yearbook 2015, pp. 280.

²⁶⁸ WTO, Subsidy: Request from the United States to China Pursuant to Article 25.9 of the Agreement, 2015.

²⁶⁹ See <http://gjzx.jschina.com.cn/20219/201410/t1705174.shtml>.

²⁷⁰ Traditional aquaculture normally takes place in coastal waters. Offshore aquaculture, or ocean farming, is an emerging approach to aquaculture in which fish farms are moved some distance offshore.

²⁷¹ See http://www.farmer.com.cn/jjpd/hyyw/201505/t20150504_1030285.htm.

Conclusion

China has assigned different priorities for fisheries development in the country's four marine zones—the Bohai Sea, Yellow Sea, East China Sea, and South China Sea. For the Bohai and Yellow Seas, China intends to control marine fishing, restore fishery stock, and promote the development of modern aquaculture and ocean farms. For the East China Sea, China intends to step up protection for its major fishing grounds and promote the development of distant-water fishing. For the South China Sea, China intends to further utilize the fishery resources in such waters as the Beibu (Tonkin) Gulf, Scarborough Shoal, and the Spratly Islands. Ocean farming in the South China Sea is considered an important approach to developing the fishery sector as well. With the completion of China's land reclamation project in the South China Sea in 2015, offshore fishing, recreational fishing, and ocean farming in the South China Sea will be further boosted.

Rapid development of fishery production has been achieved through overfishing and the concomitant depletion of fish in its near waters. China's problematic fishing policies, particularly the fishing fuel subsidy policy and maritime militia policy, undermine its efforts to curb overfishing and continue to spur further expansion of its fishing capacity. Overcapacity of China's fishing fleet and depleting fishery resources in China's inshore waters have resulted in dramatic structural changes of its marine fishing sector—a shift from inshore to offshore fishing and expansion of distant-water fishing. These structural changes, though largely beneficial to China, bring huge challenges to regional and global fishery sector and maritime security.

Global institutions that worry about the problem of overfishing around the world are especially anxious about the growth of China's DWF occasioned by its single minded pursuit of food security. Beijing should take steps to mitigate negative consequences of over-fishing and IUU fishing by the Chinese DWF fleet and distant-water fishing companies by insisting on strict enforcement of international rules and norms. This involves being sensitive to the marine ecology, global maritime security, as well as food security concerns of other countries as it pursues its objective of improved food security.

Chapter 9: Findings and conclusions

Michael McDevitt

Finding: Answering questions raised regarding China’s “maritime power” ambition

How does China understand the idea of maritime power?

It wasn’t until the 18th Party Congress in 2012 that maritime issues were officially identified as a national priority for the Communist Party, the state, and the country. The Chinese Communist Party leadership concluded that becoming a maritime power was essential to achieving its national goals. This was not a “bolt out of the blue” aspiration; rather, in terms of Party policy, it is the culminating point of over a decade of careful Chinese consideration of, and appreciation for, the importance of the maritime domain to China’s continued development, to China’s security, and to China’s vision of its place in the world.

The Chinese believe that maritime power encompasses more than naval power, but they do emphasize that being a world-class navy is central to becoming a maritime power. They also understand that the maritime power equation includes a large and effective coast guard, a world-class merchant marine and fishing fleet, a globally recognized shipbuilding capacity, and an ability to harvest or extract economically important maritime resources (especially fish).

The centrality of “power” and “control” in China’s characterization of maritime power

In exploring how Chinese commentators think about maritime power, it was instructive to note how many Chinese conceptualizations included notions of power and control. For example, an article in *Qiushi*, the Chinese Communist Party’s

theoretical journal, stated that a maritime power is a country that could “exert its great comprehensive power to develop, utilize, protect, manage, and control oceans.” It proceeded to opine that China would not become a maritime power until it could deal with the challenges it faces in defense of its maritime sovereignty, rights, and interests, and could deal with the threat of containment from the sea.

This vision of maritime power leads inevitably to the judgment that China requires strong marine defense forces—a “powerful” navy and an “advanced” maritime law enforcement force—to protect maritime rights and interests and maritime security.²⁷²

Why does China want to become a maritime power?

China wants to become a maritime power mainly because its strategic circumstances have changed dramatically over the past 20 years. Since the 1990s, the dramatic growth in China’s economic and security interests abroad have combined with traditional maritime-centered strategic objectives such as unifying with Taiwan and “reclaiming” land features in the East and South China Seas, to create a new reality that demands a focus on the maritime domain.

Xi Jinping’s vision of the China Dream has embraced maritime power as an essential element of that dream, encouraging a *Weltanschauung* among the party and PLA that becoming a “maritime power” is a necessity for China. Once Xi linked China as a maritime power with the China Dream, it became a foregone conclusion that as long as he is in charge this will remain a national objective. According to Xi, building China into a maritime power “is of great and far-reaching significance for promoting sustained and healthy economic development, safeguarding national sovereignty, security and development interests, realizing the goal of completing the building of a well-off society, and subsequently realizing the great rejuvenation of the Chinese nation.”²⁷³

Historic memory is also part in the maritime power ambition; it conveniently blends the century of humiliation with contemporary security concerns. China was brought low in 19th century by foreigners that came mostly via the South China Sea. Today,

²⁷² Chen Mingyi, “China Must be Built into a Maritime Power by 2050,” *Zhongguo Haiyang Bao*, January 13, 2014.

²⁷³ *The Diversified Employment of China’s Armed Forces*, 2013; *China’s Military Strategy*; “Xi Jinping Stresses the Need To Show Greater Care About the Ocean, Understand More About the Ocean and Make Strategic Plans for the Use of the Ocean, Push Forward the Building of a Maritime Power and Continuously Make New Achievements at the Eighth Collective Study Session of the CPC Central Committee Political Bureau,” Xinhua, July 31, 2013; Liu Cigui, “Striving to Realize the Historical Leap From Being a Great Maritime Country to Being a Great Maritime Power,” *Jingji Ribao Online*, November 2012.

China judges that the United States is the only country able to prevent China from achieving its goals because of its ability to amass power in East Asia.

Finally it wants to be a maritime power because it deserves to be; China's reading of history concludes that maritime power is a phenomenon associated with most of the world's historically dominant powers.²⁷⁴

Anxiety over the security of China's sea lanes

Beyond the maritime challenges in its near seas, China's leaders also worry about the security of its seaborne trade. The 2013 edition of *The Science of Military Strategy* notes that there are more than 30 key sea lanes of communication (SLOCs) linking China to over 1,200 ports in 150 countries and that these SLOCs are vital "lifelines" for China's economy and social development. The prominence given to SLOC protection and the protection of overseas interests and Chinese citizens in both the 2015 defense white paper and *The Science of Military Strategy* leaves little doubt that SLOC security will continue to be a major preoccupation for the PLA.

When will China become a maritime power?

Remarks made by senior leaders since 2012 have made it clear that the long-term goal is to develop capabilities that make China a leader across all aspects of maritime power. Simply having some of these capabilities means that China has some maritime power but is "incomplete."²⁷⁵

China is not embarking on a maritime power quest with the equivalent of a blank sheet of paper. China is already among the world leaders in shipbuilding; it has the world's largest fishing industry—which continues to grow, with the world's largest maritime militia based in it; and its merchant marine is either first or second in the world in terms of total number of ships owned by citizens. It already has the world's

²⁷⁴ Andrew S. Erickson and Lyle J. Goldstein, "Studying History to Guide China's Rise as a Maritime Great Power," *Harvard Asia Quarterly* 12, no. 3-4 (Winter 2010): 31-38, at http://www.andrewerickson.com/wp-content/uploads/2013/05/Erickson-Publication_Erickson-Goldstein_Studying-History-to-Guide-Chinas-Rise-as-a-Maritime-Great-Power_HAQ_2010-Winter.pdf. According to the authors of this article, "Mounting evidence suggests that purposes and prioritization of maritime development, particularly concerning the purposes and priorities of China's future military development, is the subject of major domestic debate...Representatives of all 'factions' of this debate seek historical lessons and present-day phenomena to bolster their argument."

²⁷⁵ Liu Cigui, "Striving to Realize the Historical Leap From Being a Great Maritime Country to Being a Great Maritime Power," *Jingji Ribao Online*, November 2012.

largest number of coast guard vessels. In sum, when it comes to the tangible measures of maritime power—warships and civilian vessels of all kinds, in addition to the national infrastructure needed to maintain its extant capacity and add new capacity—China already is a maritime power.

Several Chinese sources offer timelines indicating that China will make progress towards its maritime power objective or will have moderate success in that area by 2020, the 100th anniversary of the founding of the Chinese Communist Party.²⁷⁶ Dates for China becoming one of the world’s leading maritime powers are usually given as either 2049 (the 100th anniversary of the founding of the People’s Republic) or 2050 (the year that Deng Xiaoping gave as being when China’s economic level should reach that of the most advanced industrial economies). It should be noted that these dates are used as symbolic markers for a wide variety of economic, political, and military goals. They serve as rhetorical markers rather than real timelines. In fact, the research for this paper strongly suggests that China will achieve the goal of being the leading maritime power *in all areas except its navy*, by 2030.

The United States inhibits China in accomplishing its maritime power objective

One of the most significant findings is from Chinese analysts who write that U.S. naval and air presence in the Western Pacific is an impediment to Chinese maritime power ambitions. To Chinese strategists, the rebalance strategy exacerbates this problem. For China to satisfy the maritime power objective, it must be able to defend all of China’s maritime rights and interests in its near seas despite U.S. presence. In short, for China to be considered a maritime power, it must be able to *successfully* execute what the latest defense white paper terms “offshore waters defense,” known in the United States as A2/AD.

The maritime power vision is global

Chinese sources also strongly suggest that a key component of the goal of building China into a maritime power is a transition from a regional maritime actor to a global one. To be sure, most of China’s most serious maritime concerns will certainly continue to be concentrated in regional waters—that is, the “near seas.” However, it is also clear from examining a wide variety of authoritative sources, that Chinese maritime power will also have an increasingly important global component. As the latest Chinese defense white paper indicates, PLA Navy strategy is transitioning from

²⁷⁶ Ibid.

a single-minded focus on “offshore waters defense” to broader global strategic missions that place significant importance on “distant-water defense.”

Finding: Assessing the state of China’s maritime power

The PLA Navy (PLAN)

When one counts the number and variety of warships that the PLAN is likely to have in commission by around 2020, China will have both the largest navy in the world (by combatant, underway replenishment and submarine ship count) and the second most capable “far seas” navy in the world.

The “far seas” capable warships/submarines forecast to be in PLAN inventory around 2020 (discussed in chapter 3) total between 95 and 104 “far seas” capable warships; if one adds to this number the 175-odd warships/CLF/submarines commissioned since 2000 that are largely limited to near seas operations,²⁷⁷ and will likely remain in inventory through 2020, the total PLAN warship/CLF/submarine strength circa 2020 will be in the range of 265–273. As of this writing, the U.S. Navy is projected to have a total force structure of around 260 *similar classes of ships* in 2020.²⁷⁸ If current plans are carried through, some 60 percent of this number, or around 156 of these classes of ships, will be assigned to the U.S. Pacific Fleet by 2020. So while the U.S. number includes many more high-end ships, in East Asia the total number of combatants the PLAN would have at its disposal for a defensive campaign in China’s near seas is significant.

The PLAN is becoming well balanced in capabilities and ship classes, and in many ways increasingly resembles a “mini-me” of America’s navy—with the notable exception of sea-based airpower—and that is in the offing. Like the USN, the PLAN already conducts the whole range of activities associated with what is normally characterized as “peacetime” presence”: naval diplomacy, emergency evacuations,

²⁷⁷ The number 175 is the sum of 9 older DDGs, 11 older FFGs, 25 older conventional submarines, 60 Houbei Fast Attack Craft, 29 LSTs, and 41 of the new type 056 corvettes. (Here, “older” means that they were commissioned after 2000 but are no longer in production because they have been succeeded by newer, more capable classes.)

²⁷⁸ The USN total is reached by adding to the 231 to 234 ships listed in exhibit 2 of chapter 3, the 28 Littoral Combat Ships (LCSs) that should be in inventory around 2020.

disaster relief, and exercises with friendly navies. What has not been seen is traditional power projection—yet.

Perhaps the biggest uncertainty when considering China’s maritime power goal is: How large will the PLAN become? This is something China has not revealed. If one takes seriously the words in the 18th Party Work report—i.e., “building strong national defense and powerful armed forces that are *commensurate with China’s international standing* and meet the needs of its security and development interests is a strategic task of China’s modernization drive”—it could become very large indeed.²⁷⁹

The China Coast Guard (CCG)

The China Coast Guard already has the world’s largest maritime law enforcement fleet: as of this writing, the Office of Naval Intelligence counts 95 large (of a total 205) hulls in China’s coast guard, including the world’s largest CG cutter, with more predicted to be on the way.²⁸⁰

The China Coast Guard officially came into being in July 2013, formed from the integration of four extant but separate organizations that shared some portion of China’s maritime law enforcement responsibilities. The goal is to bring a consistent level of operational proficiency and professionalism to traditional coast guard functions such as maritime law enforcement, search and rescue, and safety at sea, as well as to what Chinese officials call “safeguarding China’s maritime rights and interests.”

Chinese commentators believe that China cannot be considered a maritime power until it operates a truly advanced maritime law enforcement force. While an adequate inventory of modern cutters is an essential prerequisite, the key to the “advanced maritime law enforcement force” goal will be the successful integration of the entities that have been combined to form the coast guard. Creating a true coast

²⁷⁹ “Full text of Hu Jintao’s Report at the 18th Party Congress,” Xinhua, 17 November 2012, http://news.xinhuanet.com/english/special/18cpcnc/2012-11/17/c_131981259.htm.

²⁸⁰ Office of Naval Intelligence, *The PLA Navy: New Capabilities and Missions for the 21st Century*, Washington, D.C., p. 18, <http://www.oni.navy.mil/Intelligence-Community/China>, and U.S. Department of Defense, *Annual Report to Congress: Military and Security Developments Involving the People’s Republic of China 2015*, p. 44, http://www.defense.gov/Portals/1/Documents/pubs/2015_China_Military_Power_Report.pdf. For comparison, the Japan Coast Guard operates 54 cutters displacing more than 1,000 tons. See the Japan Coast Guard’s pamphlet available at <http://www.kaiho.mlit.go.jp/e/pamphlet.pdf>. The USCG currently operates 38 cutters displacing more than 1,000 tons. See USCG website: <http://www.uscg.mil/datasheet/>.

guard “team” is a precondition for a world-class force. Much work remains to be done on this score, including the re-orientation of existing facilities and the closure of old ones; the creation of a unified personnel system; and the training of Chinese coast guardsmen to agency-wide standards, policies, and practices. Some of these things probably cannot take place until China totally revises and revamps its patchwork of maritime law.²⁸¹

The China Coast Guard still lacks the aviation assets and capabilities that characterize world-class coast guards. The newly built airfields in the Spratly chain will be able to partly offset the shortage in long-range aircraft essential for coverage of the entire South China Sea, because existing shorter-range coast guard aircraft are likely to be operated from these new island bases.

The maritime militia—the third coercive element of China’s maritime power

One of the most important findings of this project is the heretofore under-appreciated role that China’s maritime militia plays in supporting the PLAN and CCG in the Yellow, East China, and, especially, South China Seas. Often, it is China’s first line of defense in these waters. The maritime militia allows China to harass foreign fishermen and defy other coast guards operating in the near seas substantially, without obviously implicating the Chinese state. Over the years it has amassed an impressive resume of coercive activities, because as the PLA’s official newspaper candidly put it, “putting on camouflage they qualify as soldiers, taking off the camouflage they become law abiding fishermen.”²⁸²

Given its employment history, and the high-level support it receives, it seems clear that the maritime militia is seen as a key element in Beijing’s overall vision of becoming a maritime power, at least in when it comes to cooperation with the coast guard and navy in protecting its maritime rights and interests in China’s near seas.

²⁸¹ On China’s challenges with domestic maritime law, see Yu Zhirong, “The Time is Now to Accelerate Construction of Maritime Rights Protection Rule of Law,” *China Ocean News*, 28 July 2014: 3. Also, Luo Manli and Li Fang, “A Word on the Need to Pass Legislation for a Maritime Basic Law,” *China Ocean News*, 4 September 2014: 3.

²⁸² Cited in Andrew Erickson and Conor Kennedy, “Irregular Forces at Sea: Not merely Fishermen—Shedding Light on China’s Maritime Militia,” Center for International Maritime Security (CIMSEC), November 2, 2015, <http://cimsec.org/new-cimsec-series-on-irregular-forces-at-sea-not-merely-fishermen-shedding-light-on-chinas-maritime-militia/19624>.

Shipbuilding and China as a maritime power

China became the world leader in terms of merchant shipbuilding in 2010, and has subsequently retained this leading position despite the sharp global decline in demand for new ships triggered by the 2008 economic crisis and because China's economic reorientation policy has dramatically curtailed its need for imported raw materials. China became a global ship-building power by delivering less complex ships such as container ships and bulk carriers. But its shipbuilding peak was in 2012; it now faces the reality that it must shed builders and exploit economies of scale by consolidating and creating mega-yards.²⁸³

It is doing that, which means that at least one-half of the yards will disappear. The goal is to move up the ship-building complexity chain and challenge South Korea and Japan by building high-value, complex ships such as eco-friendly vessels and LNG carriers.²⁸⁴ In short for China "... to move from a shipbuilding country to shipbuilding power," it has to focus on quality above quantity.²⁸⁵

China's merchant marine

China goal is to be self-sufficient in sea trade. During the past 10 years, the China-owned merchant fleet has more than tripled in size. This pace of growth has been faster than that seen anywhere else in the entire world fleet, and has covered all ship types. In response to the Party's decision for China to become a maritime power, the Ministry of Transport published plans for upgrading the shipping industry, improving services and competitiveness. The stated aim is to build an efficient, safe, and environmentally friendly Chinese shipping system by 2020.

China's merchant marine is becoming more integrated into routine PLA operations, compensating for shortcomings in the PLA's organic, long-distance sealift capacity. Civilian ships routinely participate in PLA exercises and support troop and unit

²⁸³ Jasmine Wang and Kyunghee Park, "China poised to gain control as shipyard shakeout looms," Bloomberg Business, August 12, 2013, <http://www.bloomberg.com/news/articles/2013-08-11/china-poised-to-gain-control-as-shipyard-shakeout-looms-freight>.

²⁸⁴ For an example of eco-friendly types of vessels, see "Japanese Shipbuilders seek to regain edge lost to China, South Korea," *The Japan Times*, September 29, 2014, <http://www.japantimes.co.jp/news/2014/09/29/business/japanese-shipbuilders-seek-regain-edge-lost-china-south-korea/#.Vkzwh3mFND8>.

²⁸⁵ Pradeep Rajan, "China's shipbuilding sector must consolidate to stay competitive: official," *Platts*, 7 November 2013, <http://www.platts.com/latest-news/shipping/ningbo-zhejiang/chinas-shipbuilding-sector-must-consolidate-to-27604700>.

movements for all services. This is likely to increase as more civilian ships built to national defense specifications enter the fleet and as the PLA operates farther from China’s coasts.²⁸⁶

China’s merchant fleet is already one of the top two or three in the world, and the Ministry of Transport’s goals strongly suggest continued growth and modernization. (See Table 7. China-owned fleet,^a summary of new-build deliveries as of January 2016

ship type/owner group	ship sizes	2016	2017	2018	total
container ships					
state-owned companies	9,400-20,988 teu	3	5	27	35
other companies	9,300-19,225 teu	30	1	0	31
total		33	6	27	66
tankers					
state-owned companies	114,000-319,000 dwt	10	18	9	37
other companies	115,000-320,000 dwt	13	7	0	20
total		23	25	9	57
bulk carriers					
state-owned companies	180,000dwt	4	0	0	4
other companies	180,000-259,000 dwt	21	4	0	25
total		25	4	0	29
LNG carriers					
state-owned/other companies	172,400-174,000 cbm	3	3	2	8

Source: Compiled by Richard Scott from Clarksons Research and other data.

^a Excludes ships owned by Hong Kong.

.) China’s current merchant fleet is already world class—and if Beijing’s plans come to fruition, it will become the preeminent merchant fleet in the world.²⁸⁷

²⁸⁶“New rules mean ships can be used by military,” *PLA Daily*, June 18, 2015. In 2015, legislation was enacted that requires all civilian shipbuilding companies, as well as SOEs, to ensure that newly built container, ro-ro, multipurpose, bulk carrier, and break-bulk classes of ships are suitable for use by the military in emergency situations. The legislation specifically establishes specifications and design requirements (so-called technical standards) for military use. See also, in Chinese, *Implement National Defense Requirements Standards Ships: Maritime Projection “Second Force,”* China Ministry of National Defense, September 1, 2014, http://www.mod.gov.cn/mobilize/2014-09/01/content_4534216.htm.

²⁸⁷ Richard Scott, “China-owned ships: a rapid rise to become one of the world’s largest fleets,” *International Shipping News*, March 17, 2015, <http://www.hellenicshippingnews.com/china-owned-ships-a-rapid-rise-to-become-one-of-the-worlds-largest-fleets/>.

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total		23	25	9	57
bulk carriers					
state-owned companies	180,000dwt	4	0	0	4
other companies	180,000-259,000 dwt	21	4	0	25
total		25	4	0	29
LNG carriers					
state-owned/other companies	172,400-174,000 cbm	3	3	2	8

Source: Compiled by Richard Scott from Clarksons Research and other data.

^a Excludes ships owned by Hong Kong.

Fishing as an element of China's maritime power

China is by far the world's biggest producer of fishery products (fishing and aquaculture). China's gigantic fishing industry is supported by the largest fishing fleet in the world, with close to 700,000 motorized fishing vessels. Of these, some 200,000 are marine (sea-going) and another 2,460 are classified as distant-water fishing vessels (i.e., global, well beyond China's seas) in 2014.²⁸⁸

The interests of the central government, fishermen, and local government and industries have converged, resulting in the decision to view the fishing industry in strategic terms—highlighting its role in safeguarding national food security and expanding China's marine economy.²⁸⁹

Perhaps the most potentially significant implication of this decision on the world's fisheries is the decision to expand China's already large distant-water fishing (DWF)

²⁸⁸ "Transform Development Mode, Become a Strong Distant-water Fishing Nation," *China Fishery Daily*, 6 April 2015. Online version is available at http://szb.farmer.com.cn/yyb/images/2015-04/06/01/406yy11_Print.pdf.

²⁸⁹ State Council, 2013, "Several Opinions of the State Council on Promoting the Sustainable and Healthy Development of Ocean Fishing Industry." This is the first time since the establishment of the People's Republic that China has issued an official guiding document on the development of marine fishery in the name of the State Council. See more at <http://finance.people.com.cn/n/2013/0626/c1004-21982738.html>. More information from the news release of the Ministry of Agriculture, on 26 June 2013, is available at http://www.moa.gov.cn/zwillm/zwdt/201306/t20130626_3504906.htm.

capabilities, which means that Chinese fishing vessels will become even more ubiquitous in the EEZs of other nations, especially around Africa and South America. China's DWF is already known to be a major IUU culprit.²⁹⁰

Finding: Beijing's views of its shortfalls in maritime power.

When one considers all the aspects of maritime power—navy, coast guard, militia, merchant marine, port infrastructure,²⁹¹ shipbuilding, and fishing—it is difficult to escape the conclusion that China already is a maritime power, at least in sheer capacity. No other country in the world can match China's maritime capabilities across the board. For instance, the United States has the world's leading navy in terms of quantity and, in some cases, quality—but its shipbuilding, merchant marine, coast guard, and fishing industry pale in comparison with those of China. In 2014 China completed 22,682,000 gross tons in shipbuilding orders, while the United States, ranking 10th globally, completed 293,000 gross tons.²⁹² In fishing, the comparison is just as stark: in 2013, China caught 16.3M tons of fish, compared to the U.S. catch of 5.2M tons. The comparison of large coast guard cutters (over 1,000 tons) is one more example: Although the U.S. EEZ is three times the size of China's claimed EEZ, the China Coast Guard has 95 large cutters to the USCG's 38.²⁹³

²⁹⁰ Illegal, Unreported and Unregulated (IUU) fishing. Katie Lebling, "Fishing for Answers: Understanding Drivers and Environment Impacts of China's Distant Water Fishing Fleet," Wilson Center: China Environmental Forum, undated (circa 2013), https://www.wilsoncenter.org/sites/default/files/Fishing%20for%20Answers_0.pdf.

²⁹¹ China has 6 of world's top 10 ports in terms of total metric tons of cargo (Shanghai, Guangzhou, Qingdao, Tianjin, Ningbo, and Dalian), and 6 of 10 ports in terms of container trade (TEUs), (Shanghai, Shenzhen, Hong Kong, Ningbo, Qingdao, Guangzhou, and Tianjin). No other country has more than one. China also has 6 of the world's 10 most efficient ports (Tianjin, Qingdao, Ningbo, Yantian, Xiamen, and Nansha). UN Conference on Trade and Development (UNCTAD), *Review of Maritime Transport 2015*, http://unctad.org/en/PublicationsLibrary/rmt2015_en.pdf.

²⁹² The largest shipbuilding nations in 2014, based on completions in gross tonnage (in 1,000s). See <http://www.statista.com/statistics/263895/shipbuilding-nations-worldwide-by-cgt/>. The comparison is just as dramatic when it comes to comparing the U.S. merchant marine: approximately 1,100 U.S.-owned merchant ships (10th globally) versus 5,000 Chinese/Hong Kong-owned ships.

²⁹³ U.S. EEZ is 4,514,000 square miles; China's is 1,497,000 square miles. See https://en.wikipedia.org/wiki/Exclusive_economic_zone.

Shortcomings in Beijing's opinion

Given this reality, why do China's leaders characterize becoming a maritime power as a future goal, as opposed to asserting that China *is* a maritime power? While we do not know explicitly what Hu and Xi believed were shortfalls that needed to be overcome, we do know that some experts believe that China must be made a leader across all aspects of maritime power in order to be considered a maritime power—simply having some of these capabilities means that China has some maritime power but is “incomplete.”²⁹⁴ Research into the specific areas of China's maritime power suggests the areas in which Chinese experts believe that China has to improve:

- The China Coast Guard must complete the integration of the four separate maritime law enforcement entities into a functionally coherent and professional coast guard. The anecdotal evidence suggests that this very much remains a work in progress.
- As impressive as China's fishing industry is, Beijing is not satisfied. Increased demand for more protein in the Chinese diet means that the fishing industry—in particular, the DWF component—must expand and play a growing role in assuring China's “food security.” In recent years, the notion of a “blue granary or a marine-based food security” has become a popular concept in how to achieve that goal.²⁹⁵ To this end, China also hopes to expand the technique of “open ocean aqua-culture” in areas that have not already been polluted—specifically, the Spratlys, Paracels, and potentially Macclesfield Bank areas of the South China Sea.
- Chinese projections suggest that by 2030 China will surpass Greece and Japan with the world's largest merchant fleet by DWT,²⁹⁶ and that its “international shipping capacity” will double, to account for 15 percent of the world's shipping volume. This relates to the objective of having a larger percentage of China's trade carried by Chinese-owned ships. When it comes to strategically important petroleum imports, the goal is that 85 percent of the crude should be carried by Chinese-controlled ships. In 2014, China ordered approximately 80 of VLCC's oil tankers. Once these ships are actually delivered, China will

²⁹⁴ Liu Cigui, “Striving to Realize the Historical Leap From Being a Great Maritime Country to Being a Great Maritime Power,” *Jingji Ribao Online*, November 2012.

²⁹⁵ Qing Hong. “Research summary on the construction of marine food system.” *Marine Sciences* 39, no. 1 (2015).

²⁹⁶ Deadweight tonnage (DWT) is a measure of the weight that a ship is carrying or can safely carry. It is the sum of the weights of cargo, fuel, fresh water, ballast water, provisions, passengers, and crew.

become the largest tanker owner by owner nationality. Most of these purchases are scheduled for delivery in 2017-18.

- Like most global shipbuilders, China's shipbuilding sector is facing a serious period of contraction; therefore, the biggest shortcoming is trying to preserve as much capacity as possible, because, among other things, thousands of jobs are at stake. Chinese builders are also working to ensure future health by moving up the value chain by building economically competitive complex ships. State-owned builders can count on orders from the navy and coast guard, plus some number from the fishing industry and merchant marine. There is enough capacity available to meet PLAN building requirements.
- The primary maritime power goal for the maritime militia is straightforward: improving capacity by procuring newer, more fuel-efficient fishing craft. Training is a constant issue for any militia.
- China's most serious impediment to becoming a maritime power is its navy. There appears to be a widespread view in China that it cannot become a maritime power until it can (1) deal with the challenges it faces in defense of its sovereignty (including its rights and interests), (2) be a factor in shaping global maritime issues, and (3) deal with the threat of containment. In case of conflict, the navy must, in conjunction with other PLA services, be able to defeat an attempt by the United States to blockade China or to intervene in order to help a U.S. ally, or Taiwan, if it is under attack by China. The navy must also be able to successfully conduct "open seas protection" missions in defense of China's SLOCs, its global overseas interests, and its millions of citizens. In short, Chinese assessments quite logically conclude that until its navy can accomplish these missions, China will not be considered a maritime power.

Finding: When China becomes the leading maritime power.

From the perspective of summer 2016, none of these shortcomings appear insurmountable. China is already a maritime power in many areas despite the fact that Beijing is not totally satisfied. China has obviously demonstrated the skill to overcome perceived shortcomings in areas across the spectrum of maritime power. Otherwise, it would not be where it is today: close enough that its leadership can publicly announce that becoming a maritime power is a national objective. The combination of past performance and ambitious future goals strongly suggests that China is likely to achieve all of its maritime power objectives, perhaps except one, sometime between 2020 and 2030.

The objectives in some areas, such as the coast guard, maritime militia, and fishing industry, are likely to be achieved by around 2025. Chinese experts estimate that the merchant marine objectives will be accomplished by around 2030. The shake-out of the shipbuilding industry is uncertain, and depends on market conditions. China's ability to move up the value/ship complexity scale is likely to depend on the success of China's attempts to create mega-yards in order to capitalize on economy of scale—something South Korea and Japan have mastered.

The one exception is the navy. As already discussed, in five years or so, China is forecast to have a larger navy than the United States, if one simply considers numbers of principal combatants, replenishment ships, and submarines. Since most of China's warships and submarines will be available in East Asia, while only a portion of the USN is available in these waters on a day-to-day basis, China will increasingly possess a growing quantitative advantage in the Western Pacific while gradually closing the qualitative gap.²⁹⁷ While the United States has allies, such as Japan, that have modern navies, there is no guarantee that any of America's maritime friends and allies can be counted on in a conflict unless they themselves are under attack.

Since it is up to China's leaders themselves to judge when its navy is strong enough to satisfy them that China is a maritime power, it is difficult to forecast a date. As mentioned previously, the ambition to have a military "commensurate with China's international standing and meet the needs of its security and development interests," suggests that the navy will take at least another 15 years of expansion in targeted capability areas aimed specifically against USN qualitative advantages noted in footnote 297—in short, sometime around 2030.

To decide when the navy meets their standards for being a maritime power, Chinese leaders will probably use criteria that revolve around the objectives asserted by Chinese commentators:

- *Control waters where China's "maritime rights and interests" are involved.*
 - Based on the objective spelled out over a decade ago in the 2004 defense white paper, this likely means the ability to achieve "sea and air control" over the maritime approaches to China (the sea area from which U.S. aircraft or cruise missiles could hit mainland China—i.e., approximately the

²⁹⁷ The USN holds several aces that China will take some time to either duplicate or counter: first, American's all nuclear-powered submarine force; second, the decided advantage that the USN holds in sea-based airpower; third, America's large all-AEGIS cruiser/destroyer force; and fourth and foremost, the tradition, skill, and operational experience that the officers and sailors of the U.S. Navy possess.

area enclosed by the second island chain).²⁹⁸ This is what the PLA's "near waters defense" (aka A2/AD), is intended to defeat. If the region comes to believe that China could do this, it would gravely harm U.S. interests in East Asia. This is why the United States has been working hard to develop counters to China's ability to achieve the "control" it deems necessary for its maritime security.

- This erstwhile competition between China's ability to control its seaward approaches versus U.S. efforts to thwart that control will almost certainly continue to play out in the years (decades?) ahead. Short of actual combat, that is not very likely, no one will know for certain whether China will ever be able to meet this benchmark. The key point, however, is when, if ever, China's leaders believe it could achieve its desired control.
- *The second objective is being able to enforce its maritime rights and interests.*
 - If one considers this as primarily a peacetime problem set, the combination of the China Coast Guard and maritime militia is already capable of, and increasingly practiced in, enforcing Chinese rules and regulations in its territorial seas and claimed EEZ (or within the so called nine-dash line in the South China Sea). The planned addition of newer cutters to the coast guard along with anticipated improvements in organizational standardization will only enhance Beijing's extant enforcement capabilities.
- *The third objective revolves around the ability to deter or defeat attempts at maritime containment.*
 - It is not absolutely clear what China means by "maritime containment." If maritime containment is intended to mean a blockade, a wartime activity, then the combination of the capabilities required to "control" its maritime approaches, addressed above, plus the capabilities associated with the "open seas protection" mission addressed in Chapter 3, pertain.
 - On the other hand, *detering maritime containment* implies a peacetime activity involving the combination of Chinese conventional and nuclear capabilities and the perception that China's leaders have the will to act. In short, it means ensuring that China's potential enemies seriously pause and

²⁹⁸ PRC Defense White Paper, December 2004, Information Office of the State Council of the PRC, December 2004, Beijing, <http://english.people.com.cn/whitepaper/defense2004>. Western naval strategists/theorists normally define sea or air control as "being able to use the sea or air at will for as long as one pleases in order to accomplish any assigned military objective, while at the same time denying use to the enemy."

consider costs before attempting maritime containment. Arguably, this deterrent is already in place, and will be enhanced by its newly operational SSBN force.

- *Deterring maritime containment* may also address the broader political-military objective of preventing the United States from forming a de facto anti-China maritime coalition, something that many Chinese think the United States and Japan are already attempting in cahoots with India and Australia. This suggests that Beijing would focus on making certain the other leading maritime powers of Asia do not establish a formal defense treaty relationship where all parties are pledged to come to the aid of one another. Such a formal security relationship seems highly unlikely—more because of China’s economic power, geographic propinquity, and strategic nuclear arsenal, than because of the capabilities of the PLA Navy. That said, having the largest navy in Asia does not hurt the deterrence equation.

Implications and policy options for the United States

Implications

Whether it is the navy, the merchant marine, or China’s distant-water fishing fleet, in the coming years the Chinese flag is going to be ubiquitous on the high seas around the world. Seeing Chinese warships in the Indian Ocean and the Mediterranean’s far reaches will become routine. There may be far more opportunities for USN-PLAN cooperation, because they are far removed from Chinese home waters where sovereignty and maritime claim disputes create a different maritime ambiance.

For Washington, one implication of China’s growing “open seas protection” capable ships is that U.S. authorities can no longer assume unencumbered freedom to posture U.S. naval forces off Middle East and East African hotspots if Chinese interests are involved and differ from Washington’s. Both governments could elect to dispatch naval forces to the waters offshore of the country in question.

Collectively, a number of factors—the goals for more Chinese-controlled tankers and other merchant ships, the new focus on “open seas protection” (aka, far seas, what the U.S. would term “blue water”) naval capabilities, the base in the Spratlys, Djibouti, and perhaps Gwadar, Pakistan, and the ambitious infrastructure plans associated with the 21st Century Maritime Silk Road—suggest that China is doing its best to immunize itself against attempts to interrupt its seaborne trade by either peacetime sanctions or wartime blockades.

Once the reality of a large Chinese navy that routinely operates worldwide sinks into world consciousness, the image of a PLAN “global” navy will over time attenuate perceptions of American power, especially in maritime regions where only the USN or its friends have operated freely since the end of the Cold War.

More significantly, the image of a modern global navy combined with China’s leading position in all other aspects of maritime power will make it easy for Beijing to claim that China has become the “world’s leading maritime power,” and to argue that its views on the rules, regulations, and laws governing the maritime domain must be accommodated.

The growing size of China’s DWF fleet has worldwide implications for the world’s fisheries because China’s DWF has a poor reputation when it comes to fishing without permission or deliberately understating its total catch in other countries’ EEZs. Not only does this have a negative economic impact on poor nations that depend on fishing as a livelihood and a food supply, but Chinese IUU fishing could lead to more incidents like the Argentinian CG sinking of a Chinese DWF fishing boat. That in turn could generate a demand for the China Coast Guard to operate globally.²⁹⁹

Policy

In general, Washington has few policy options when facing the implications of China’s desire to become the world’s leading maritime power. The market and government support will determine whether China can reach its shipbuilding objective; similarly, the growth and modernization of its merchant marine will be dictated by the combination of support to SOEs and market conditions. China’s concepts of its maritime rights and interests are driving the development of its coast guard and maritime militia.

There is one aspect of Chinese maritime power that U.S. government officials should press their Chinese counterparts to address—just how large will the PLA Navy become? When is its total force structure objective? The United States, along with virtually every other major maritime country in the world, is quite open about the desired size of its navy. For instance, the stated objective for the U.S. Navy is 308

²⁹⁹ Ankit Panda, “Argentina Coast Guard Sinks Chinese Fishing Boat,” *The Diplomat*, March 16, 2016, <http://thediplomat.com/2016/03/argentina-coast-guard-sinks-chinese-fishing-boat/>.

ships.³⁰⁰ China's lack of transparency on this fundamental fact is only understandable if Beijing worries that the number is large enough to be frightening.

In one area, the United States does have leverage because of the direct relationship between Beijing's maritime power objective, which includes the ability to achieve control of its maritime approaches, and America's focus on making certain that China cannot accomplish this objective. Were China to succeed, it would largely nullify Washington's ability to gain access to the Western Pacific if alliance partners or Taiwan should face an attack by China. Accordingly, U.S. security policy should continue to focus on and resource appropriately those capabilities necessary to achieve access, or what is now known as Joint Concept for Access and Maneuver in the Global Commons (JAM-GC).³⁰¹

Access to the U.S. market does provide Washington with another policy option when it comes to fishing and the global impact of China's fishing industry. According to the UN, the world's fisheries are in grave danger from overfishing; yet, China wants its DWF fishing fleet to grow and catch more of the world's fish. This "contradiction" is ripe for collective action by the world's leading maritime nations, given the disproportionate impact that Chinese DWF will have on global fish stock. China provides significant subsidies to its fishing operations (95 percent of which are in the form of fuel subsidies), which in turn negatively impact global fishery sustainability. This is an area where the ability of the United States to organize a collective approach could be very helpful.³⁰²

Overall, however, becoming a maritime power falls into the category of China doing what China thinks it should do, and Washington can do little that would be likely to deflect China from its goal. The maritime power objective is inextricably linked to Chinese sovereignty concerns (real and perceived); to its maritime rights and interests (broadly and elastically defined); to its economic development, its jobs, and its improved technical expertise; to the centrality of fish to its food security goals; to its perception of the attributes that a global power should possess; and to the fact that its president and general secretary of the CCP said that maritime power is

³⁰⁰ Ronald O'Rourke, *Navy Force Structure and Shipbuilding Plans: Background and Issues for Congress*, Congressional Research Service 7-7500 of March 17, 2016, <https://www.fas.org/sgp/crs/weapons/RL32665.pdf>.

³⁰¹ Sam LaGrone, "Pentagon Drops Air Sea Battle Name, Concept Lives On," *USNI News*, January 20, 2015, <https://news.usni.org/2015/01/20/pentagon-drops-air-sea-battle-name-concept-lives>.

³⁰² Tabitha Grace Mallory, *Fishing Subsidies in China*, Elsevier and National Bureau of Asian Research (NBR), January 29, 2016, https://www.academia.edu/23673925/Fisheries_Subsidies_in_China_Quantitative_and_Qualitative_Assessment_of_Policy_Coherence_and_Effectiveness.

China's goal. The only thing likely to cause to China to reconsider its objective of becoming the leading maritime power is an economic dislocation serious enough to raise questions associated with "how much is enough?" This could cause a major reprioritization of resources away from several maritime endeavors such as the navy, merchant marine, and shipbuilding.

Thus, beyond grasping the magnitude and appreciating the audacity of China's ambition to turn a country with a historic continental strategic tradition into the world's leading maritime power, the only practical course for the United States is to ensure that in the eyes of the world it does not lose the competition over access to East Asia because without assured access the central tenets of America's traditional East Asian security strategy cannot be credibly executed.

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