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CHINA'S MARITIME AMBITIONS

Andrew S. Erickson

Introduction

Maritime forces are on the leading edge of China's military modernization, both programmatically and geographically. They offer vital tools for achieving progressively diminishing ripples of control in the Near Seas (Yellow, East, and South China Seas), influence in the Indo-Pacific "Two Oceans" region, and reach across the seas beyond.¹ China's People's Armed Forces (PAF) include three principal sea forces. The People's Liberation Army Navy (PLAN), the world's largest, is second only to the U.S. Navy in aggregate capabilities. The China Coast Guard (CCG) is the world's largest civil maritime force. Finally, the PAF Maritime Militia (PAFMM) is the world's largest irregular sea force, and virtually the only one tasked with involvement in sovereignty disputes. This chapter surveys the underlying dynamics, structural trends, and future outlook for these forces.

Strategy

China has long pursued a relatively consistent hierarchy of national security interests and priorities.² What has varied most is how far down the hierarchy China's leaders are able to extend concerted efforts without risking the maintenance of higher priorities. Formation of the People's Republic of China (PRC), followed by the easing of the Chinese Civil War and Cold War tensions as well as three-plus decades of meteoric national growth, now allow Beijing to focus efforts further down the list of objectives than ever before.³ Home to all of China's unresolved feature and maritime claims, the Near Seas is now a core focus of its military development.

Coupled with the world's second largest economy and defense budget, these factors have directly informed the current leadership vision. Xi Jinping's "China dream" promises national rejuvenation led by a Chinese Communist Party (CCP) firmly in charge. He calls for a strong country with strong armed forces to safeguard stability at home as well as to command both regional preeminence and respect, influence, and deference to China's interests abroad. As part of this ambitious effort, Xi is building on his predecessor's efforts to transform China into a great "maritime power."⁴ Unlike his predecessors, he is devoting considerable focus and energy to leading a thorough Chinese maritime transformation. He has prioritized "rights protection" over regional maritime stability, and specifically called for "strategic management of the sea," apparently a comprehensive state effort to achieve and maintain dominance over the Near Seas in peacetime.⁵

Doctrinal directions

To implement Xi's vision, China is pursuing an updated military strategy. China's 2015 Defense White Paper (DWP), conveys its latest Military Strategic Guideline, the PRC's ninth ever. This national military strategy represents authoritative guidance from the Central Military Commission (CMC) concerning all aspects of PLA combat-related activities.⁶ China's military modernization emphasis has shifted from "winning local wars under conditions of informatization" to "winning informatized [network-centric] local wars, highlighting [and preparing for] maritime military struggle" (放在打赢信息化局部战争上, 突出海上军事斗争和军事斗争准备). As part of a more integrated, networked, flexible approach, integrated joint operations (一体化联合作战) are replacing previous combined arms operations. The maritime domain is increasingly prioritized. As China's lead sea force, the PLAN is charged with Near Seas Defense (近海防御) as its primary effort; but also – for the first time – with adding a less-intense but growing outer layer of Far Seas Protection (远海护卫). As for geographical grounding, the PLA's main "strategic direction" remains Taiwan, with additional areas of focus including the East and South China Seas. Beyond the DWP, broader maritime development efforts, including measures to bolster the CCG and PAFMM, are prioritized in China's latest Five Year Plan.⁷

In keeping with evolving ways of war, China is thus pursuing a military strategy of "active defense" to ensure it can "win informatized local wars" (打赢信息化局部战争). This strategy privileges "non-linear, non-contact, and asymmetric" (三非) operations. It seeks to match key Chinese strengths against the weaknesses of the U.S. and other potential opponents. Long enshrined in major PLA strategy documents, as well as China's National Security Law of 2015, active defense is a concept of reacting to threats to China's inherently defensive strategic goals (such as protecting China's maritime periphery) in a manner that may be proactive or even offensive operationally (i.e., by using a ship-launched missile to target a U.S. carrier strike group dispatched to preclude China from coercing Taiwan). "Local informatized war," the sort Chinese strategists believe their nation must prepare for as a worst case scenario vis-à-vis disputed claims in the Near Seas, is limited in length, geography, and means but involves multiple domains. Non-linear operations involve launching attacks from multiple platforms in unpredictable fashion that range across the enemy's operational and strategic depth. Non-contact operations entail targeting the enemy with precision (e.g., missile, electromagnetic) attacks from a beyond-horizon distance sufficient to potentially preclude direct retaliation. Asymmetric operations involve exploiting inherent physics-based limitations to match Chinese strengths against an opponent's weaknesses in an effort to change a potential opponent's policy in peacetime or achieve early war termination on favorable terms. This involves the employment of "assassin's mace weapons" (杀手锏武器) stemming from Jiang Zemin's 1999 injunction: "That which the enemy fears most, that is what we must develop."⁸

Organizational Reform

Acutely aware of the PLA's remaining weaknesses,⁹ Xi is pursuing sweeping military reforms – possibly China's most ambitious ever. His goal: a PLA that is more modern, competent, joint, and capable of winning wars; in short, leaner and meaner. In the PLA's eleventh reduction in history, 300,000 troops will leave its books (some will work elsewhere in the PAF, some will retire, and some will find civilian work). Already, 7 Military Regions (MRs) have become 5 joint command "theaters of operations." Of greatest relevance to high-intensity maritime operations, the Eastern Theater oriented toward the East China Sea, the Southern Theater toward South China Sea. There is now a clearer division of labor, in which theater headquarters command operations and services focus on force management issues. Informatized operations involving networking

and command operation may circumvent some previously sclerotic bureaucratic layers.¹⁰ This rebalancing is already yielding increased status and prioritization for the PLAN. Its 235,000 personnel may even increase as other services, particularly the PLA Army (PLAA), shed billets. Its higher-ranking officers will likely enjoy a level of representation in the theater headquarters that they never had in the ground force-dominated MRs. Ongoing integration since 2013, while complex and painful, is making the CCG a far more capable force. Following a multi-decade history of serving on the front lines of Chinese maritime claims, leading PAFMM units are undergoing unprecedented professionalization and militarization.

Forces: hardware and software

As throughout the PAF more generally, in China's maritime forces "hardware" (ships and related equipment) is improving rapidly while "software" (the organizations and personnel that utilize them) tends to lag in some areas. Many areas of unevenness remain. Even in hardware, for instance, some electronics and weapons systems retain significant limitations.¹¹ Nevertheless, when viewed over time, there is significant progress virtually across the board.

Plan

Hardware

China's naval hardware modernization effort stands at twenty-five years and counting. Design work on newer ships began in the late 1980s, just as China was opening back up to the world and seaborne trade was beginning to power rapid economic growth.¹² Following the end of the Cold War, Taiwan's democratization, and related mainland security concerns, by the mid-1990s a build-out began that persists to the present. To date, growth has been more qualitative than quantitative, with major advances in ships' size, missions, sensors, and weapons.

China's conventional submarine fleet, long prioritized, has become relatively quiet. China's nuclear-powered submarines remain noisier because of propulsion technology challenges. Developing a credible nuclear dyad by adding a sea leg is both a priority and a long-term effort. Deterrence options will increase as China moves from the Type 094 nuclear-powered ballistic missile submarine (SSBN) to a possibly quieter Type 096 variant, and from the JL-2 submarine-launched ballistic missile (SLBM) to a longer-range JL-3.

China's surface fleet is being transformed by the serial production and deployment of larger, more capable multirole vessels, as indicated in Figure 8.1 (pg. 103). Major improvement in ship-board air defense allows protection of vessels when operating further from shore-based defenses.

The PLAN remains focused on anti-surface warfare, to dramatic effect. Most platforms are outfitted with increasing load-outs of advanced, high-speed, long-range cruise missiles. Of particular note over the coming decade will be the Type 055 guided-missile cruiser, and the Type 095 nuclear-powered attack submarine that will succeed the presently-deployed 093. As a sea-based land-attack mission emerges during that time, land-attack cruise missiles (LACMs) will be loaded on such ships as the Type 052D destroyer.¹³ Long-range targeting remains an area for improvement, but growing utilization of unmanned aerial vehicles (UAVs) will join land-based over-the-horizon radars and burgeoning constellations of satellites to enhance the relevant C4ISR.

While power projection capabilities lag, China has refitted a former-Ukrainian starter carrier and is now building at least one additional hull.¹⁴ "We use the Liaoning to test the reliability and compatibility of systems on carriers, and to train personnel. The second carrier will mainly do what a genuine aircraft carrier is supposed to do: running combat patrols and delivering humanitarian

China's maritime ambitions

Type	IOC	Displacement (tons)	SAM	ASCM	2010	2015	2017	2020
<i>Aircraft Carriers</i>								
Modified Project 1143.5	2016	55,000– 60,000	HHQ-10	None	NA	NA	1	1
001A Liaoning class	Est 2020	55,000– 60,000	HHQ-10	None	NA	NA	NA	1
<i>Cruisers</i>								
055 (Renhai)	?	Est 12,000	HHQ-9A/B HHQ-10	YJ-18	NA	NA	NA	1
<i>Destroyers</i>								
051/D/Z (Luda I)	1971	3,670	NA	YJ-83/C802A	12	3	2	0
051G (Luda III)	1989	3,700	HHQ-7	YJ-83/C802A	2	2	2	2
051DT (Luda IV)	1990	3,700	HHQ-7	YJ-83/C802A	1	1	1	0?
052 (Luhu)	1994	4,800	HHQ-7	YJ-83/C802A	2	2	2	2
051B (Luhai)	1999	6,600	HHQ-16	YJ-83/C802A	2	2	2	2
Project 956E (Sovremenny)	2000	7,940	SA-N-7A	SS-N-22	2	2	2	2
Project 956EM (Sovremenny)	2004	7,940	SA-N-7B	SS-N-22	2	2	2	2
052B (Luyang I)	2004	6,300	SA-N-7B	YJ-83/C802A	2	2	2	2
052C (Luyang II)	2005	6,800	HHQ-9	YJ-62/C602	2	6	6	6
051C (Luzhou)	2006	7,300	SA-N-20	YJ-83/C802A	2	2	2	2
052D (Luyang III)	2014	7,000	HHQ-9A HHQ-10	YJ-83/C802A	0	3	6	13
<i>Frigates</i>								
053H/H1/H2 (Jianghu I-V)	1975	1,660–2,100	NA	SY-1/2 YJ-8A/C801	30	18	17	10
053H2G (Jiangwei I)	1992	2,400	HQ-61	YJ-83/C802A	4	0	0	0
053H3 (Jiangwei II)	1999	2,400	HHQ-7	YJ-83/C802A	10	10	10	10
054 (Jiangkai I)	2005	3,900	HHQ-7	YJ-83/C802A	2	2	2	2
054A (Jiangkai II)	2008	4,050	HHQ-16	YJ-83/C802A	6	18	22	30
054B	?	Est 5,000	HHQ-16 HHQ-10	YJ-18	NA	NA	NA	?
<i>Corvette</i>								
056/056A (Jiangdao)	2013	1,440–1,500	HHQ-10	YJ-83/C802A	0	16	31	43
<i>Missile Patrol Craft</i>								
022 (Houbei)	2004	225	NA	YJ-83/C802A	60+	83	83	83

Figure 8.1 Major PLAN surface combatants¹⁵

aid,” states Naval Research Institute analyst Sr. Capt. Zhang Junshe. “The PLA needs at least three aircraft carriers . . . one can be on duty, one can train personnel, and one can receive maintenance.”¹⁶ These long-term efforts, combined with significant improvements in PLAN aircraft, are making Chinese air and sea power more far-ranging and sophisticated than ever before.

Software

Fueled by heightened resources, and more flexibility to accept and motivate technologically-savvy talent, the PLAN is recruiting and retaining more standout officers and specialists. It is taking in fewer enlisted lacking potential for sophistication or retention. As one of previous PLAN Commander Admiral Wu Shengli's priorities, PLAN education is being consolidated and reorganized. In a sea change that he considers to be imperative for a world-class navy, PLAN education is transitioning from technocratic, balkanized Soviet model to an integrated, interdisciplinary American model. Emphasized by Xi himself, training is undergoing a similar renaissance. Exercises involve larger, more complex, more mobile and far-reaching joint operations. Increasing realism is facilitated by incorporating electronic warfare, using land-based simulators, employing advanced mobile targets with passive and active jammers, and engaging opposition forces.¹⁷

CCG

The CCG is rapidly increasing both its "rights protection" responsibilities and capabilities. Of China's three sea forces, vis-à-vis its goal capabilities of "safeguarding maritime rights and interests," however, it faces the greatest degree of software lagging hardware. A fleet buildup perhaps matched in degree by no other maritime force in the world is yielding greater numbers of larger, more capable vessels. Over the past five years, China's civil maritime forces added more than 100 ocean-going patrol ships. Now, even as quality improves across the board, a further 25% quantitative force increase is underway.¹⁸ To be sure, the CCG remains quite limited in aviation, and likely requires a considerable increase in helicopters and fixed-wing maritime patrol aircraft to achieve its desired maritime domain awareness.¹⁹ But it is in software that the greatest challenges remain. Overcoming national-local disconnects to achieve full organizational consolidation and integration will require an agency-wide personnel system, standards, and practices – perhaps facilitated by the passage of long-anticipated China's Maritime Basic Law.²⁰ On the positive side, the CCG established a command center in 2014 and has achieved a unified command. "Chinese leaders now have their fingers on the pulse of all rights protection operations in Chinese-claimed waters," although "tactical-level coordination is likely quite poor."²¹ The CCG is increasing patrols and exercises, including more training with the PLAN and PAFMM. Its struggle "to form a fist out of formerly ineffectual fingers" continues.²²

PAFMM

The maritime subset of the third component of China's armed forces after the PLA and People's Armed Police (PAP), the PAFMM is an armed mass organization of primarily civilian-economy mariners who are trained and mobilized to implement China's national maritime strategy and advance its maritime territorial claims.²³ Leading elements of the force are increasingly professionalized and militarized.²⁴ Its personnel are organized and commanded directly by the PLA's local military commands. Elite PAFMM units are entrusted with maritime "rights protection" activities, including deliberate participation by PAFMM forces in international sea incidents ranging from the 1974 Battle of the Paracels to the 2014 HYSY-981 Oil Rig Incident. Such frontline activities occur directly under the PLA chain of command. Thanks to their utility in upholding and advancing contested Chinese claims in the East and South China Sea, elite units are enjoying significant qualitative and quantitative growth. They are receiving larger, more capable vessels, and training more frequently with the CCG and PLAN.

Operations and scenarios

DoD assesses that capabilities under development “could permit the PLA to achieve sea control within . . . the ‘near seas,’ as well as to project limited combat power into the ‘far seas.’”²⁵ In pursuing Near Seas Active Defense, China is developing a comprehensive counter-intervention approach to increase its chances for achieving sea control in a variety of contingencies.

Foremost in the mind of Chinese strategists and planners, their potential opponents, and interested observers alike is a simple question: how well would China's sea forces perform in the potential scenarios for which they are being developed and trained? Unfortunately, the complex, multivariate, evolving equations are extremely difficult to assess with public information.

The best approach is a probabilistic assessment based on rigorous methodology, which is beyond the scope of this chapter. As the next best alternative, within a means (force structure)-ways (operational scenarios)-ends (achieving campaign objectives) framework, it will survey leading publicly available assessments. U.S. government reports offer a reliable overview, data, and foundation. Non-official studies from government-affiliated research organizations such as RAND, as well as their former employees, offer more detailed, versatile assessments that are useful for informing scenario analysis. When carefully vetted, leading Chinese-language publications offer important context, texture, and trends in specific (“gray”) areas. The key is to extract “wheat” from overwhelming, contradictory “chaff.”

For the majority of major combat operations scenarios that might involve China, China's ends-ways-means are largely consistent. The ends are achieving (degree, duration, location variable with campaign objective) control in/under/over the Near Seas and immediate approaches in order to uphold or advance contested sovereignty claims, as outlined in the section on strategy on pg. 100. The ways involve a combined operational approach that Chinese sources term “Controlling seas by relying on land, and controlling oceans by using seas” (倚陆制海, 以海制洋).²⁶ The means involve developing, deploying, and employing capabilities that are advantageously asymmetric vis-à-vis potential opponent(s), as outlined in the previous section on force structure. Here, the focus is on the ways that China will try to achieve control.

Control

China's choice of control as a way for Near Seas campaigns has clear theoretical advantages. It is most amenable to PRC use of military force, with manifold opportunities to use asymmetric weapons. It poses the greatest challenge to opponents, including U.S. Execution, of course, is more difficult in practice. Figure 8.2 (pg. 106) outlines the principal aspects of potential Chinese efforts for achieving control.

As the following specific examples illustrate, even the most adept Chinese effort necessitates an important choice: large-scale, visible preparations to maximize mobilization, signaling, and strategic flexibility; or smaller covert preparations to maximize surprise and operational and tactical flexibility?

Taiwan scenario: leading high-end contingency

PLA efforts remain focused. Cross-Strait relations are currently relatively stable, but this could change rapidly. The January 2016 election that returned the DPP to power is but one manifestation of growing Taiwanese disenchantment and concern. Meanwhile, Mainland sensitivity, confidence, impatience is pacing rapid improvement in both relative and absolute PLA capabilities. DoD assesses that “The PLA is capable of increasingly-sophisticated military actions against Taiwan.”²⁷

<i>Mission</i>	<i>Goals</i>	<i>Operations</i>	<i>Capabilities</i>	<i>Systems</i>	<i>Status</i>
Near Seas Counter-Intervention/A2-AD	Recover Taiwan, other claimed territories. Deter/frustrate enemy interference by conventional and nuclear means. Sea/air control for certain time in certain area(s) of Near Seas to achieve fait accompli vis-à-vis Taiwan/Spratlys before U.S. intervenes.	<ul style="list-style-type: none"> • Defensive/offensive naval, air • Offensive missile salvos • Short-range amphibious assault • Island/reef seizure • Securing high-value assets 	<ul style="list-style-type: none"> • Regional C4ISR/Maritime domain awareness • Precision strike • Opposed intervention 	<ul style="list-style-type: none"> • Ground-/sea-based ISR • Landline/line of sight communications • Land-based/coastal defense • Conventional submarines • Ballistic and cruise missiles • Land-based fighter/strike aircraft • AEW • Amphibs • Special forces • Coast Guard • Militia 	Pursued 1987-present. All major capabilities to support, but no guarantee of overcoming U.S./allied countermeasures.
Extended Blue Water A2/AD	Higher probability of achieving above objectives by holding opposing forces at risk throughout China's periphery out to 1,000+ km from territorial waters/airspace. Defend major wartime SLOCs.	All the above, at greater distance, intensity, and duration	<ul style="list-style-type: none"> • Longer-range, more robust expression of the above • Possible strategic bombing 	<ul style="list-style-type: none"> • Longer-range variants of the above, potentially based further forward • Additional air-/space-based ISR • Bombers? 	Possibly achievable by ~2020

Figure 8.2 Elements of control²⁹

These could entail several major types of operations or some combination thereof. Two options might lack a significant maritime component. First, targeted coercion efforts could involve Special Forces launching attacks on infrastructure or leadership. Second, an air/missile campaign could likewise involve high-priority targets, or a more general threat as posed by the 1958–78 Jinmen Bombardment and missile strikes offshore as during the 1995–96 Taiwan Strait Crisis. The latter is already viable, with operational advantages; yet highly escalatory and possibly limited in what it could achieve alone.

Most of China's Taiwan coercion options would require significant PLAN involvement. A maritime quarantine/blockade could take manifold forms from merchant traffic diversion to inspection or transshipment requirements to military port closure to "war at sea."²⁸ Such actions are already viable absent U.S. intervention – the key swing factor. While offering the theoretical possibility of escalation control, even an operationally successful blockade might not guarantee a desired political end state.

Some form of amphibious invasion could accompany a blockade, or be executed independently. As detailed in the PLA's Joint Island Landing Campaign and practiced in joint landing

exercises, such an operation is inherently complex and difficult. China has many options for invading nearby offshore islands, exploiting proximity, numbers, and a full spectrum of forces, supported by a land-based missile/air backstop. "The PLA is capable of accomplishing various amphibious operations short of a full-scale invasion of Taiwan," DoD judges.³⁰ Outlying islands are highly vulnerable: "With few overt military preparations beyond routine training, China could launch an invasion of small Taiwan-held islands in the South China Sea such as Pratas or Itu Aba. A PLA invasion of a medium-sized, better-defended island such as Matsu or Jinmen is within China's capabilities."³¹ Doing so would risk (geo)politically Pyrrhic victory: galvanizing Taiwanese and international opposition without ensuring a permanent resolution in Beijing's favor. Invading Taiwan proper, even absent American intervention, remains extremely difficult. Robust terrain in the form of extensive mud flats, complex tide sequences, few favorable landing points, and impediments to overland passage offer a strong foundation for island defense.

In a maximal Taiwan campaign, China might also seek to combine elements of the above. Objectives could include achieving information dominance and air/sea superiority to create conditions for negotiated political settlement. Phases might include pre-positioning submarines/sea mine barriers, launching missile/air strikes on key targets, and surging amphibious landing force with naval escorts. To date, however, such an operation likely faces too many limiting factors to succeed. As Figure 8.3 documents, this includes an insufficient amphibious fleet that is not growing rapidly. In the assessment of Roger Cliff, who is exceptional in his publication of a unified campaign model, "it does not appear that China in 2020 will have reason to be confident of successfully

Type	IOC	Tons	Troops	Armored Fighting Vehicles	Number in Inventory			
					2010	2015	2017	2020
<i>Landing Helicopter Dock (LHD)</i>								
081	2017?		900?	?	0	0	2	
<i>Landing Platform Dock (LPD)</i>								
071 (Yuzhao)	2008		600	15	1	3–4	5	
<i>Landing Ship, Medium (LSM)</i>								
073-II (Yudeng)	1994		180	6	1	1	1	
074 (Yuhai)	1995		250	2	13?	6	6	
073A (Yunshu)	2004		500	6	10	10	10	
<i>Landing Craft, Utility (LCU)</i>								
074A (Yubei)	2004		200	10	?	3	3	
<i>Landing Ship, Tank (LST)</i>								
072/-IIG (Yukan)	1980		200	10	7	7	6	
072-II/III (Yuting I)	1992		250	10	10	9	9	
072A (Yuting II)	2003		250	10	11	11	11	
LCUA								
Pomoronik (“Zubr”)					?	4	4	4
<i>Hovercraft/Landing Craft, Air Cushioned (LCAC)</i>								
726 (Yuyi)	2008				3	3		

Figure 8.3 PLAN amphibious landing ships³⁴

invading Taiwan if the United States intervenes on Taiwan's side."³² While emphasizing that Taiwan is becoming increasingly difficult for the U.S. to defend, RAND largely concurs: "a war for Taiwan would be a short, sharp, probably desperate affair with significant losses on both sides."³³

Taiwan has a small but fairly capable military and its value to Beijing lies largely in its politically vital main island, whose preservation as a democratic society is of vital importance to Washington and of concern to powerful members of the international community, including Japan. In practice, this means that among military and paramilitary options, only high-intensity operations, or at least the threat of them, could hope to resolve sovereignty issues in Beijing's favor – and this remains largely aspirational. The PLAN could not hope to act alone, and China's other maritime forces would be unlikely to have a role at all.

South sea contingency

Scenarios in the South China Sea, by contrast, center on small, hard-to-defend features of less inherent political concern to the U.S. and other influential powers. While Washington and Manila maintain an alliance, its precise application to certain features remains unclear, particularly given the recent statements and actions of President Duterte. Within this more permissive environment, Beijing has a wider range of military and paramilitary options for advancing its sovereignty claims; a larger percentage of which it would execute primarily with one or more of its maritime forces.

A high-end scenario in the South China Sea is conceivable, primarily concerning a Sino-Philippine dispute over a Spratly feature (perhaps following a Philippine attempt to repair or replace its grounded vessel-outpost on Second Thomas Shoal following a typhoon) in which the U.S. intervened. A combination of distance from mainland bases and Chinese desire to avoid a prolonged, visible buildup would place a premium on in-theater assets, primarily those in the Southern Theater Command. China might attempt to parlay its relative power into information dominance, air/sea superiority, seize claimed features, and negotiate a political settlement. To compensate for disadvantages in distance, communications, strike, transit, and fuel, China might pre-position submarines/sea mine barriers, launch missile/air strikes on key targets, and surge an amphibious landing force with naval escorts. Roger Cliff's assessment here is more encouraging for China than for a Taiwan scenario: if Beijing could maintain an element of surprise, it could possibly achieve a *fait accompli* that would leave Washington with unpalatable options.³⁵ "Through 2017, the U.S. military will almost certainly continue to enjoy the upper hand in most areas, though the degree of advantage will continue to erode," RAND judges, adding: "In the maritime realm, both sides may be able to target the other's surface warfare forces in the confined spaces of the South China Sea."³⁶

As with other scenarios, it is possible that China's deterrence and risk calculus are changing. Not only are related Chinese activities more assertive than previously, Chinese sources also suggest that it may become somewhat more risk acceptant regarding crises that might ensue.³⁷ But Beijing is already advancing multifarious South Sea claims, and asserting its claim to the Senakaku/Diaoyu Islands in the East China Sea, by easier, more gradual, less risky means. What Chinese sources term "war without gun smoke," DoD terms "low-intensity coercion . . . a progression of small, incremental steps to increase [China's] effective control over disputed areas [while] avoid[ing] escalation to military conflict."³⁸ To execute such salami slicing, Beijing has employed all three major sea forces. Working together, their collective actions are termed "Naval, Coast Guard, and Maritime Militia Joint Defense" (军警民联防).³⁹ Three-force coordination occurred in the 2009 *Impeccable* Incident and 2014 HYSY 981 Oil Rig Incident.⁴⁰ While the PLAN did not participate directly in the 2012 Scarborough Reef Incident, frontline action by the CCG and PAFMM wrested the

feature from the Philippines.⁴¹ Ongoing Paracel and Spratly "island" construction and fortification affords the CCG and PAFMM even more persistent, flexible presence.

In the Near Seas, Beijing is pursuing a high-low approach. At the high end, while still inadequate to guarantee its objectives, China's relative capabilities are improving rapidly, potentially undermining U.S. deterrence. During the 2020s, Cliff forecasts, China will gain "the capability to, at a minimum, contest control of [regional] seas and airspace . . . an attempt to oppose a Chinese use of force will be dangerous and costly for any country, including the United States."⁴² Similarly, RAND projects that for the next 5–15 years, U.S. forces could still prevail in protracted war in such areas, but victory would be far costlier in the past as the PLA might achieve temporary local air and naval superiority at the outset.⁴³ Meanwhile, at the low end, China is gradually accruing peacetime gains without substantial American countermeasures.

Influence

While it continues to prepare for intense Near Seas operations, the PLAN is also adopting a more diffuse range of missions around the world with little or no CCG or PAFMM participation. Safeguarding growing overseas interests, including the safety of citizens and assets and security of seaborne energy/resource imports, promotes gradual development along a continuum of operational capabilities. From modest beginnings, its force posture advances along a spectrum defined by the ability to sustain higher intensity combat under increasingly contested, uncertain conditions ever farther from Mainland China. Distance from land-based defenses and "work arounds" and relying more extensively on long-range C4ISR imposes new challenges. To support these unprecedented activities, for instance, China is developing a network of overseas access points for logistics and intelligence.

Within this Far Seas zone, China is pursuing an inner layer of influence and an outer layer of reach. The inner layer constitutes the "Two Oceans region" (两洋地区) spanning the Western Pacific, Indian Ocean, and surrounding seas.⁴⁴ To the extent that such efforts (outlined in Figure 8.4, below) are relevant to a Near Seas scenario, they would involve pushing the culminating point out, and distracting a U.S. mobilization and logistics train.

Reach

In addition to controlling the Near Seas and influencing the Two Oceans region, China aspires to access all other seas around the globe as needed with its maritime forces. Such efforts (outlined in Figure 8.5 on pg. 110) have little direct relevance to Near Seas scenarios, for which China would likely recall forces homeward; doing so in peacetime might foreshadow operational plans.

Conclusion: key dynamics and trends

China is achieving rapid but uneven military-maritime development. Geography matters tremendously. Close to home, China's military and paramilitary capabilities are strong and well-tailored. For the PLAN, short-range opportunities, including "work arounds" to mitigate weaknesses, help pose tremendous challenges to their American counterparts without approaching their absolute capabilities. This affords China strategic defensive posture along interior lines, rendering opposing forces inherently vulnerable. Additionally, Beijing's other two sea forces offer manifold cost-effective, escalation-limiting options. Long-range challenges, by contrast, continue to loom imposingly. China is making much slower progress, from a much lower baseline, farther away. Its

<i>Mission</i>	<i>Goals</i>	<i>Operations</i>	<i>Capabilities</i>	<i>Systems</i>	<i>Status</i>
Limited Expeditionary	Ability to conduct maritime interdiction operations and high-level NEO, when necessary beyond East Asia	<ul style="list-style-type: none"> • Securing important assets overseas • Defense of sea lanes, by denial if necessary • Counterterrorism strikes 	<ul style="list-style-type: none"> • Extra-regional C4ISR/MDA • Coordination • Overseas sea/air lift • Long-range air/sea power projection • Opposed intervention • Self-defense • Deep water ASW • AAW Sustainment 	<ul style="list-style-type: none"> • Extra-regional PNT/space, communications, surveillance network • Carrier groups • Aviation • UAVs • Replenishment ships/aircraft • Advanced special forces • Undercover PAP/private security contractors 	Low end already achieved. More robust capabilities achievable by 2030.
Blue Water Expeditionary	Some form of global presence even if thin. Ability to surge combat-ready forces in/above core strategic overseas areas. Ability to seize, attempt to hold small overseas features.	<ul style="list-style-type: none"> • All the above, at greater distance, intensity, and duration • Joint forcible entry operations • Long-range amphibious assault • Long-range denial/control of specific air/sea/littoral space 	<ul style="list-style-type: none"> • Longer range, more robust expression of above • Cuing from wide area sensors (hydrographic arrays, satellites) • Combat air patrol • Overseas facilities access (particularly dedicated airfields) • Overseas repair 	<ul style="list-style-type: none"> • Longer-range versions of above • More forward basing/deployment • CSGs • Long-range missiles in surface fleet? • SSNs • AWACs • Helicopters/VTOL 	In progress. Full capacity by 2030 at earliest.

Figure 8.4 Elements of influence⁴⁵

forces face military limitations and vulnerabilities in distant seas, and are far from being able to conduct high intensity kinetic operations against capable forces there.

The more China strives to become a great maritime power far beyond its shores, the more it will face the great costs of sea power. Manifold factors will increase costs and technological requirements, rendering China less asymmetric and exceptional. The closer China's navy approaches leading-edge capabilities, the more expensive and difficult it will be for it to advance further, or even to remain in a given position vis-à-vis the global capabilities frontier. Weapons systems and associated infrastructure will be progressively more-expensive to build, operate, and maintain than their less-advanced predecessors. China's cost advantages decrease as military equipment becomes less labor-intensive and more technology- and materials-intensive. The more sophisticated and technology-intensive PLAN systems become, the less relative benefit China derives from acquiring and indigenizing foreign technologies, and the less cost advantage it will have in producing and maintaining them.⁴⁷

China's maritime ambitions

Mission	Goals	Operations	Capabilities	Systems	Status
Global Expeditionary	Ability to send combat-ready naval/air forces to all major strategic regions of the world	<ul style="list-style-type: none"> • Presence • FONOPS • Peacekeeping/stabilization operations • Major HA/DR • NEO Other public goods/non-traditional security provision (chemical weapons escort, missing airliner search, etc.) 	<ul style="list-style-type: none"> • Global C4ISR/MDA • Global sea/air lift • Global air/sea power projection • Global ASW/AAW • Sensor cuing • Combat air patrol • Robust sustainment • Overseas sea/air facilities network • Remote repair capability 	<ul style="list-style-type: none"> • Global PNT/space, communications, surveillance network • SSNs • CSGs • Other large surface combatants • Amphibs • Hospital ships • Extensive forward basing/deployment • Long-range, high-speed oilers/replenishment ships • Field hospitals • Cargo aircraft • Tanker aircraft • Bombers • Long-range air defense systems • Helicopters/VTOL • Tenders • Rapid deployment troops (~U.S. MEU) 	<p>Extremely long, nuanced capability spectrum.</p> <p>Ability to send very limited forces into non-contested areas around the world already achieved.</p> <p>Timeline for high-intensity opposed capacity uncertain.</p>

Figure 8.5 Elements of reach⁴⁶

Meanwhile, structural and organizational reform will require increased investment and impose associated demobilization costs. As with Western maritime forces, rising salaries and benefits to attract, educate, train, and retain technologically-capable professionals with private sector alternatives will consume an increasing portion of the budget. Growing entitlements will likewise cause a strain, particularly as increasing numbers of retirees draw benefits.

Marshalling considerable historical data, Philip Pugh demonstrates that while countries tend to spend a constant percentage of their economy on defense over time, the cost of ships and weapons outpaces inflation – typically at 9%. At 2% inflation, this would compound to costs doubling each decade. Even 2% naval budget growth per annum – excessively optimistic for most developed Western nations – would tend to require an annual average 3.5% reduction in fleet numbers. By shifting given missions to smaller platforms, navies can innovate and economize; but constant cost growth challenges ultimately forces major numbers reductions.⁴⁸ As history

warns, many European naval challenges of yesterday and American naval challenges of today will be China's tomorrow. Xi is fortunate that – barring major economic disruption – the majority of problems will emerge after he retires.

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