



# THE PLA NAVY

New Capabilities and Missions for the 21<sup>st</sup> Century



# Report Documentation Page

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“WE SHOULD ENHANCE OUR CAPACITY FOR EXPLOITING MARINE RESOURCES... RESOLUTELY SAFEGUARD CHINA’S MARITIME RIGHTS AND INTERESTS, AND BUILD CHINA INTO A MARITIME POWER.”

HU JINTAO





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*Additional resources:*

*Posters of China Equipment, Leadership Structure, and PLA(N) and MLE Recognition Guide enclosed in inside back pocket.*

*Multimedia vignette links of China’s Defensive Layers and South China Sea Maritime Claims can be found on pages 8 and 43 respectively.*





# EXECUTIVE SUMMARY

Since our last publication in 2009, the People's Liberation Army Navy (PLA(N)) has made significant strides in operationalizing as well as modernizing its force. Although the PLA(N)'s primary focus remains in the East Asia region, where China faces multiple disputes over the sovereignty of various maritime features and associated maritime rights, in recent years, the PLA(N) has increased its focus on developing blue-water naval capabilities. Over the long term, Beijing aspires to sustain naval missions far from China's shores.

When we wrote the 2009 publication, China had just embarked on its first counterpiracy missions in the Gulf of Aden, but most PLA(N) operations remained close to home. Nearly six years later, these missions have continued without pause, and China's greater fleet has begun to stretch its legs. The PLA(N) has begun regular combat training in the Philippine Sea, participated in multinational exercises including Rim of the Pacific (RIMPAC) 2014, operated in the Mediterranean, increased intelligence collection deployments in the western Pacific, and for the first time deployed a submarine to the Indian Ocean.

The People's Republic of China (PRC) has continued to modernize its military, providing the PLA(N) with increasingly modern multipurpose platforms such as the LUYANG III-class destroyers and the JIANGDAO-class corvettes. The Chinese military also continues to evolve its doctrine, organization, and training to ensure its personnel are able to effectively fight modern wars with modern equipment. Sustained leadership emphasis on "realistic" and "complex" training has influenced training patterns and improved operational proficiency during the past five years. In late 2012, Xi Jinping extolled the continued importance of cultivating "real combat" awareness throughout the military. Today, the PLA(N) conducts complex multidiscipline warfare training throughout the year.

China's force modernization has concentrated on improving the quality of its force, rather than its size. Quantities of major combatants have stayed relatively constant, but their combat capability has greatly increased as older combatants are replaced by larger, multi-mission ships. With a greater percentage of the force consisting of these modern combatants capable of blue water operations, the PLA(N) will have an increasing capability to undertake missions far from China.

In addition to improving the traditional destroyer and frigate backbone of its fleet, the PLA(N) is on the verge of incorporating very different platforms that will greatly influence the operations of its future fleet. The JIN-class nuclear ballistic missile submarine (SSBN) is poised to begin strategic patrols in the near future, for the first time, putting Chinese intercontinental range ballistic missiles to sea. At the same time, with the commissioning of the KUZNETSOV-class air craft carrier "LIAONING," China has taken the first step as a carrier-capable navy.

Against this backdrop of increasing military capability, China's leaders appear increasingly willing to assert China's maritime claims, even when such actions risk exacerbating tension with China's neighbors. Since 2009, friction in the South China and East China Seas has become commonplace. With its expanding Coast Guard, China has been able to quickly respond to incidents it feels violated its claimed sovereignty in disputed areas. This trend has been highlighted by sustained China Coast Guard operations at a number of disputed features, including Scarborough Reef, Second Thomas Shoal, and the Senkaku Islands. More recently, China has begun strengthening its position in the Spratly Islands. Throughout 2014, China reclaimed hundreds of acres of land at the seven features that it occupies and appears to be building much larger facilities that could eventually support both maritime law enforcement and naval operations.





# NAVAL STRATEGY AND MISSIONS

## The Evolution of a Naval Strategy

On September 25, 2012, China's senior leadership officially commissioned the KUZNETSOV-class LIAONING, the country's first aircraft carrier. Although LIAONING remains several years from becoming fully operational, and even then will offer relatively limited combat capability, this milestone signals a trend in Chinese naval strategy that has long-term implications for the region and the United States. China's leaders have embraced the idea that maritime power is essential to achieving great power status. Since the 1980s, China's naval strategy has evolved from a limited, coastal orientation, to one that is mission-focused and becoming increasingly unconstrained by geography. The People's Liberation Army Navy (PLA(N)) primarily focuses on developing its modern naval combat capability to execute a range of contingency operations. Many of those operations include the expectation of U.S. military intervention. Additionally, China is becoming more involved in a range of "diversified missions" throughout Asia and beyond. China will invest in the Navy, Coast Guard, and maritime industries to more actively and effectively assert its security and economic interests in the coming decades.

Over the past two years, China's top leadership has emphasized the need for China to become a maritime power. In his final report as chairman of the Communist Party of China at the 18th Party Congress, Hu Jintao declared, "We should enhance our capacity for exploiting marine resources...resolutely safeguard China's maritime rights and interests, and build China into a maritime power." President Xi Jinping further championed efforts to comprehensively advance China's maritime development, declaring at a high-profile study session in July 2013 that "[w]e need to do more to take interest in the sea, understand the sea, and strategically manage the sea, and continually do more to promote China's efforts to become a maritime power." The public emphasis on maritime power and the need to "resolutely safeguard" China's maritime rights and interests reflects a growing consensus in China that maritime power is essential to advancing China's overall national development.

From its founding in 1949 until the mid-1980s, China's strategic concept of naval operations was limited to "coastal defense." This strategy emphasized defending China's coast from amphibious invasion, presumably by Taiwan and U.S. forces, in what would primarily be a land war. Since the 1980s, China's shifting threat perceptions and growing economic interests have catalyzed a major shift in strategic orientation and the perceived utility of naval forces. In particular, Chinese naval strategists have sought to expand the bounds of China's maritime capabilities and defenses beyond coastal waters. By 1987, PLA(N) Commander Admiral Liu Huaqing had established a strategy referred to as "offshore defense."

Offshore defense focuses on regional goals and deterring a modern adversary from intervening in a regional conflict. Admiral Liu characterized "offshore" areas as those east of Taiwan and the northern part of the Pacific Ocean, stretching beyond the First Island Chain. Offshore defense is often associated with operations in the Yellow Sea, East China Sea, and South China Sea—China's "near seas." In the late 1980s, the development of offshore defense paralleled the Central Military Commission (CMC)'s adoption of a new military strategy that focused on local wars on China's periphery rather than a major confrontation with the Soviet Union.

Events of the 1990s, including U.S.-led operations against Iraq and Serbia, U.S. intervention in the Taiwan Strait crisis of 1995–96, and the ongoing modernization of Japan's and Taiwan's navies, highlighted for Chinese strategists China's continued vulnerability to threats from the sea and long-range precision strike weapons. These trends made it clear to Beijing that China was ill-prepared for modern warfare. The CMC charged the PLA with developing the ability to fight "local wars under modern, high-tech conditions." To do so, the PLA has advocated two key concepts to guide its modernization: "informationization" and "non-contact warfare." The PLA(N) has subsequently sought to develop a force with integrated, highly technical systems capable of long-range strikes for regional deterrence.



“**Informationization**” describes China’s effort to incorporate modern information technology into all aspects of military operations, such as command and control (C2), logistics, and targeting. China’s leaders recognize that the information advantage is vital on the modern battlefield.

“**Non-contact warfare**” involves employing platforms and weapons in long-range, precision strikes from outside an enemy’s “defended zone.” The PLA(N)’s commitment to non-contact warfare is demonstrated by its continued acquisition of long-range weapons to be launched from ships, submarines, aircraft, or shore-based platforms as well as the associated detection and targeting capabilities required to employ these weapons to their fullest capacity.

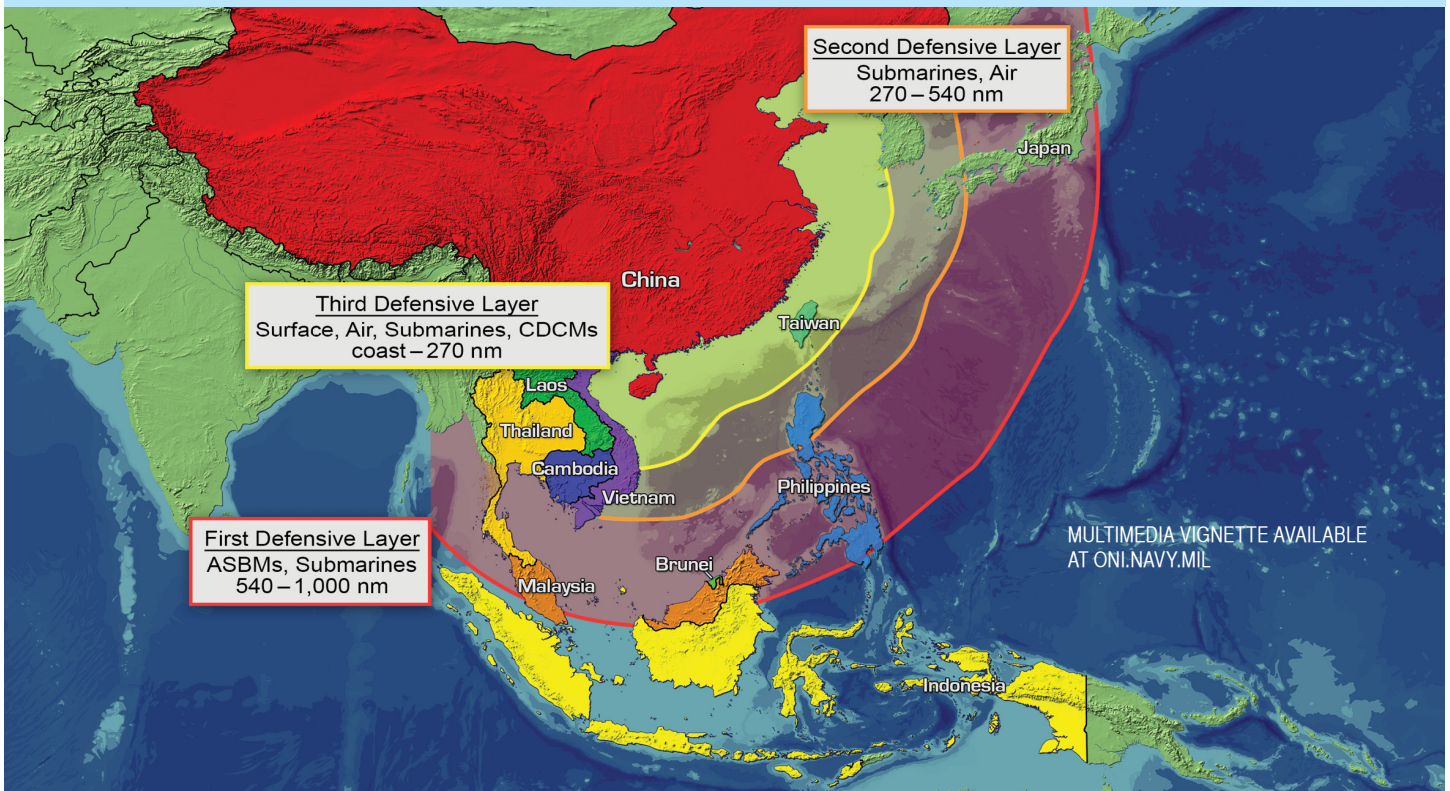
Although the PLA(N)’s primary focus remains in the “near seas,” where China faces multiple disputes over the sovereignty of various islands and associated maritime rights, in recent years the PLA(N) has increased focus on developing “far seas” naval capabilities. Over the long term, Beijing aspires to be able to sustain some naval missions far from China’s shores. China has already conducted initial far seas missions, which have included intelligence collection, humanitarian assistance and

disaster relief, non-combatant evacuation operations, and protection of Sea Lines of Communication (SLOC) in the form of counterpiracy escort missions in the Gulf of Aden. Future missions could include support to combat operations. The expansion of Chinese naval operations into the western Pacific and Indian Oceans during the past five years will help facilitate these growing mission sets. Additionally, Chinese acquisition patterns demonstrate a growing emphasis on ships that are both multi-mission capable and large enough to sustain far seas operations.

## PLA(N) Roles and Missions

Like many other rising powers throughout history, China’s interest in maritime power has grown in concert with its economic and security agenda. With a heavy reliance on maritime commerce, Beijing now has a vested interest in ensuring the security of international trade. Beijing also faces growing pressure to contribute to world peace and international security missions. Finally, the PLA(N) is at the forefront of addressing a number of enduring PRC security challenges, from being prepared to force Taiwan reunification with the mainland to providing the military expedient for asserting Chinese maritime claims in the East China Sea and South China Sea. Although

**Figure 1-1. China’s Defensive Layers**



nontraditional missions are a significant influence and drive the PLA(N) to operate in the far seas, traditional naval missions to safeguard maritime security and maintain the sovereignty of territorial waters will remain a priority for naval operations, training, and planning.

## The Cross-Strait Problem

The PRC views reunification with Taiwan as an immutable, long-term goal and hopes to prevent any third party from intervening in what China asserts is an internal matter. China's leaders have long emphasized their preference for peaceful reunification; however, they also note that China is not prepared to wait indefinitely for a political resolution. For several decades, China's naval investments have focused heavily on capabilities to deter Taiwan's moves toward independence, to successfully reverse Taiwan's actions should deterrence fail, and if necessary, to forcibly reunify Taiwan with the mainland even if the United States were to become militarily involved. As a military strategist at Beijing's Academy of Military Sciences stated, "We can resolve a crisis if we are in a position to deter."

For these reasons, China's modernization efforts during the 1990s and early 2000s focused on preparing for a Taiwan conflict and developing capabilities to deter, delay, and, if necessary, degrade potential U.S. military intervention. China has built or acquired a wide array of advanced platforms including submarines, major surface combatants, missile patrol craft, maritime strike aircraft, and land-based systems employing new and sophisticated antiship cruise missiles (ASCMs) and surface-to-air missiles. China also developed the world's first antiship ballistic missile (ASBM), a system specifically designed to attack enemy aircraft carriers. Chinese leaders hope that simply possessing these military capabilities will deter pro-independence moves or—should deterrence fail—permit a range of military options that can be tailored to the specific situation.

Given the pace of PLA(N) modernization, the gap in military capability between the mainland and Taiwan will continue to widen in China's favor over the coming years. During the 1995-96 cross-strait crisis, Beijing engaged in large-scale exercises and missile demonstrations; however, its options for dealing with Taiwan directly were limited. China was ill-prepared to execute a major reunification campaign and even less capable of countering U.S. forces intervening on Taiwan's behalf. Nearly two decades later, China has closed some of the capability gaps—including

air defense and long-range maritime strikes—that would support a number of Taiwan-related campaigns.

Following Taiwan's 2008 election, cross-strait relations enjoyed a sustained warming trend. The ensuing stability assuaged PRC concerns over the possibility of a near-term crisis and enabled the PLA(N) to focus attention on other mission areas; however, it has not affected the underlying political challenge. From the perspective of the PLA, and the PLA(N) in particular, developing the capabilities to compel reunification will remain a central priority in the years ahead.

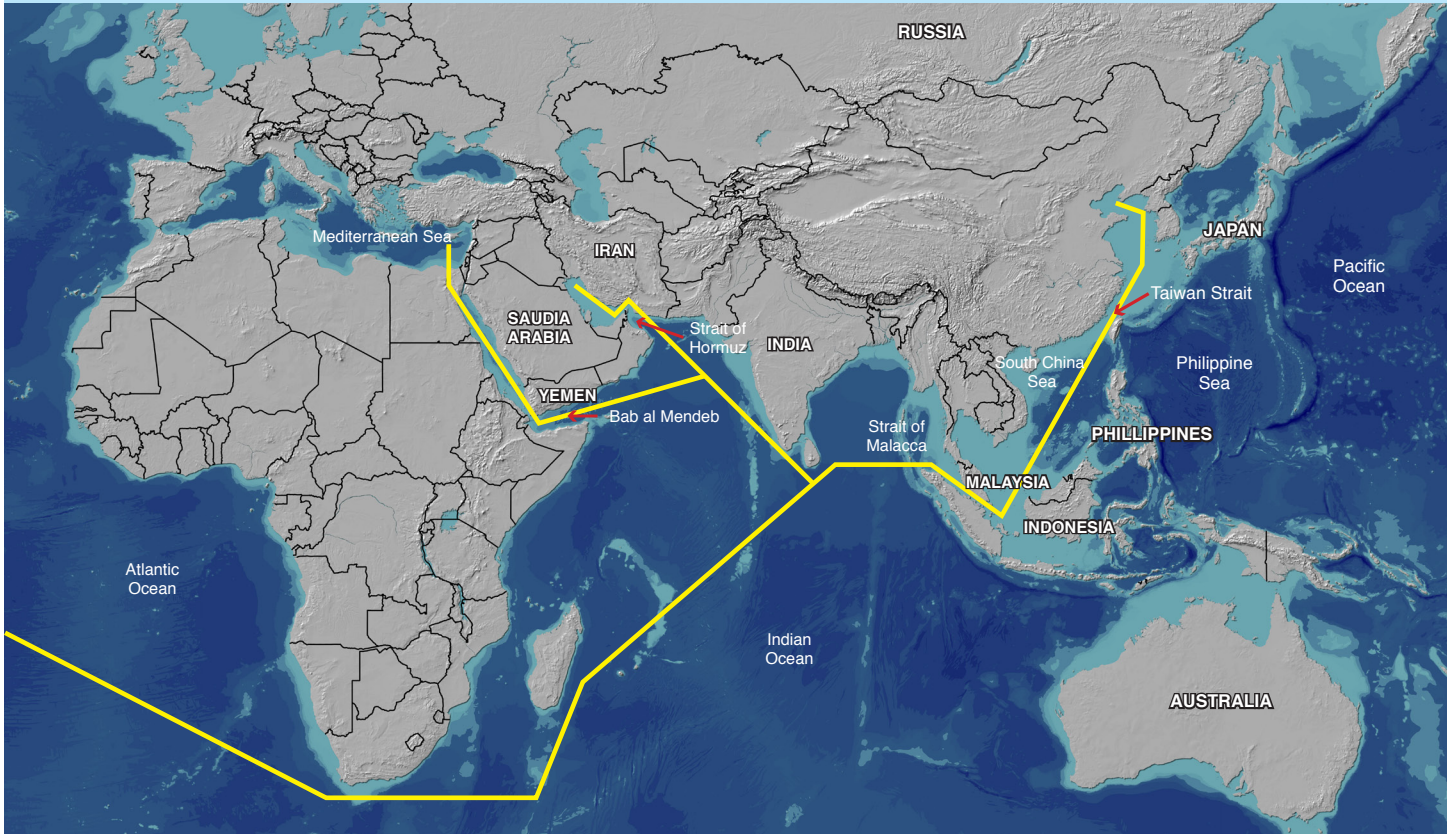
## Beyond Taiwan

China's nontraditional security interests in the far seas, as well as island sovereignty disputes and resource competition in the near seas, increasingly influence modernization and planning priorities. Former President Hu Jintao's 2004 assertion of the PLA's "new historic missions" highlighted new expectations for the navy. Two of the articulated missions—providing a security guarantee to safeguard China's national development and playing an important role in ensuring world peace—significantly adjusted China's national defense strategy and broadened its definition of security to include new geographic and functional areas beyond the PLA's traditional territorial security missions. Missions such as naval escort in the Gulf of Aden support China's economic interests while simultaneously advancing China's international image.

China's Defense White Papers have chronicled the shift to a wider range of military missions, highlighting pressure from economic globalization and strategic competition, as well as the requirement for "diversified military tasks," such as disaster relief, counterterrorism, and counterpiracy. The 2008 Defense White Paper specifically articulated a requirement for military operations other than war (MOOTW), noting China's intent to gradually develop the capabilities to operate cooperatively in the open ocean and contend with nontraditional security threats.

China's 2013 Defense White Paper noted that the PLA(N) "endeavors to accelerate the modernization of its forces for comprehensive offshore operations...[and] develop blue water capabilities." It asserted that China's armed forces must adapt to meet new challenges, including nontraditional missions, and charged the PLA with strengthening

**Figure 1-2. Sea Lane Protection**



overseas operational capabilities such as emergency response, escort, and noncombatant evacuation missions.

During the past decade, requirements for diversified missions and far seas operations have stimulated an operational shift and have catalyzed the acquisition of multi-mission platforms capable of improved sustainability and self-defense in blue water. Most of the PLA(N)'s new acquisitions are suited for both near seas and far seas missions. The LUYANG III-class DDG (Type 052D), which entered service in 2014, embodies the trend toward a more flexible force with advanced air defenses and long-range strike capability. The large YUZHAO-class LPD (Type 071) is capable of amphibious and logistical operations in the near seas, although it is also equipped to support expeditionary operations and nontraditional security missions, such as counterpiracy patrols, around the world.

The PLA(N) has also begun nearly annual humanitarian assistance missions with ANWEI-class (Type 920) hospital ship "PEACE ARK." PEACE ARK has deployed to South Asia and Africa in 2010 and 2013, Latin America in 2011, and Oceania and the Rim of the Pacific (RIMPAC) exercise

in 2014. It also conducted its first disaster relief mission to the Philippines in late 2013 following Typhoon Haiyan.

### **Protecting Maritime Sovereignty**

In the East China and South China Seas, Beijing faces longstanding disputes with its neighbors about maritime boundaries, economic rights, and sovereignty over various geographic features. During the past few years, maritime disputes have intensified between China and rival claimants such as Japan, the Philippines, and Vietnam. China's Navy, Coast Guard, and Chinese economic actors are increasingly visible throughout the region and are increasingly proactive in asserting Beijing's maritime claims, even when directly challenged by other claimants' naval and Coast Guard assets.

Historically, Beijing has preferred to use diplomacy, economic influence, and Coast Guard patrols to assert maritime sovereignty; however, the Navy provides an important security guarantee with the means to intimidate smaller claimants and deter larger ones. Beijing's growing confidence in its capabilities and various tools of influence has likely contributed to

its decision to adopt more assertive tactics when it feels that its maritime interests are challenged.

In a conflict or crisis, the PLA(N) has a variety of options to assert its maritime interests through military force. The PLA(N) could lead an amphibious campaign to seize key disputed island features or conduct blockade or sea line of communication (SLOC) interdiction campaigns to secure strategic operating areas.

## Sea Lane Protection

China's leaders view sustained economic growth as the central requirement for transforming China into a powerful nation. Since any disruption of critical international chokepoints would undermine China's export-driven economy, the PLA(N) is expected to defend major SLOCs. It is along these maritime routes that the overwhelming majority of China's foreign trade—more than 90 percent by volume and more than 65 percent by value—is transported. The SLOCs are essential to China for the export of finished goods and the import of raw materials, including crude oil.

SLOC protection is not simply a matter of deploying ships to chokepoints. It requires the capability to sustain a maritime presence in strategic locations, in hostile conditions, and for extended periods. When President Hu initially called for this type of capability in his 2004 expansion of China's historic missions, concerns over the Malacca Strait dominated discussion of SLOC security. Today, as China's economic interests expand, China's SLOC concerns extend to even more distant waters. This appears to have generated greater discussion on the potential of overseas naval bases.

The PLA(N)'s sustained counterpiracy operations in the Gulf of Aden demonstrate Beijing's intention to protect important SLOCs. China's participation serves several purposes: first, it is in line with the PLA(N)'s mission requirements to protect the PRC's strategic maritime interests; second, it provides the PLA(N) with the opportunity to develop and refine the operational capabilities it needs for "far seas" operations; and third, it enhances China's image as a responsible member of the global community.

## Looking Ahead

In contrast to its narrow focus just a decade ago, the PLA(N) is evolving to meet a wide range of missions including conflict with Taiwan, enforcement of maritime

claims, protection of economic interests, as well as counterpiracy and humanitarian missions. The PLA(N) will also soon assume a central role in China's nuclear deterrent with the first ballistic missile submarine patrols with an intercontinental-range missile. In the next decade, China will complete its transition from a coastal navy to a navy capable of multiple missions around the world. China's leaders see the evolution of naval strategy as necessary to preserve China's interests and commensurate with its role as an emerging major power.

Although being prepared to forcibly reunify Taiwan with the mainland will remain a driving force behind China's naval modernization, the PLA(N) is simultaneously focusing resources on a growing array of other challenges, particularly competition over regional territory and rights. Friction between China and its neighbors appears increasingly likely as Beijing seeks to deter rival activities and assert its own claimed rights and interests.

Aside from these challenges, the PLA(N)'s growing capabilities and broad strategic focus also creates new opportunities for cooperation with other countries, including the United States. China's sustained presence in the Gulf of Aden underscores the potential to achieve mutually beneficial objectives, such as countering piracy. Similarly, China's new hospital ships, amphibious ships, and even the new aircraft carrier create opportunities for China to contribute to the delivery of humanitarian assistance, disaster relief, and other positive services.



# PLA(N) EQUIPMENT— BUILDING A MODERN NAVY



During the past 15 years, China's ambitious naval modernization has produced a more technologically advanced and flexible force. The PLA(N) currently possesses more than 300 surface combatants, submarines, amphibious ships, and missile-armed patrol craft. Although the overall order-of-battle has remained relatively constant in recent years, the PLA(N) is rapidly retiring legacy combatants in favor of larger, multi-mission ships, equipped with advanced antiship, anti-air, and antisubmarine weapons and sensors. Since 2000, the PLA(N) has been on track to dramatically increase its combat capability by 2020 through rapid acquisition and improved operational proficiency.

During 2014 alone, more than 60 naval ships and craft were laid down, launched, or commissioned, with a similar number expected through the end of 2015. Major qualitative improvements are occurring within naval aviation and the submarine force, which are increasingly capable of striking targets hundreds of miles from the Chinese mainland. Although the PLA(N) faces capability gaps in some key areas, it is emerging as a well equipped and competent force.

From the mid-1990s to the mid-2000s, China often built small numbers of a large variety of ships, changing classes rapidly as advancements were made. In the period between 1995 and 2005 alone, China constructed or purchased major surface combatants and submarines in at least 15 different classes. Using imported technology, reverse engineering, and indigenous development, the People's Republic of China (PRC) rapidly narrowed the technology and capability gap with modern navies during the 1990s and 2000s.

As the PLA(N) narrowed the technological gap, procurement became more indigenous and more efficient. The last delivery of a major naval platform from a foreign country was the SOVREMENYY II-class DDGs in 2006. China is

implementing much longer production runs of its domestically produced surface combatants and conventional submarines, suggesting greater satisfaction with recent designs. The JIANGKAI-class (Type 054A) frigate series, LUYANG-class (Type 052B/C/D) destroyer series, and the upcoming new cruiser (Type 055) class are considered to be modern and capable designs that are comparable in many respects to the most modern Western warships.

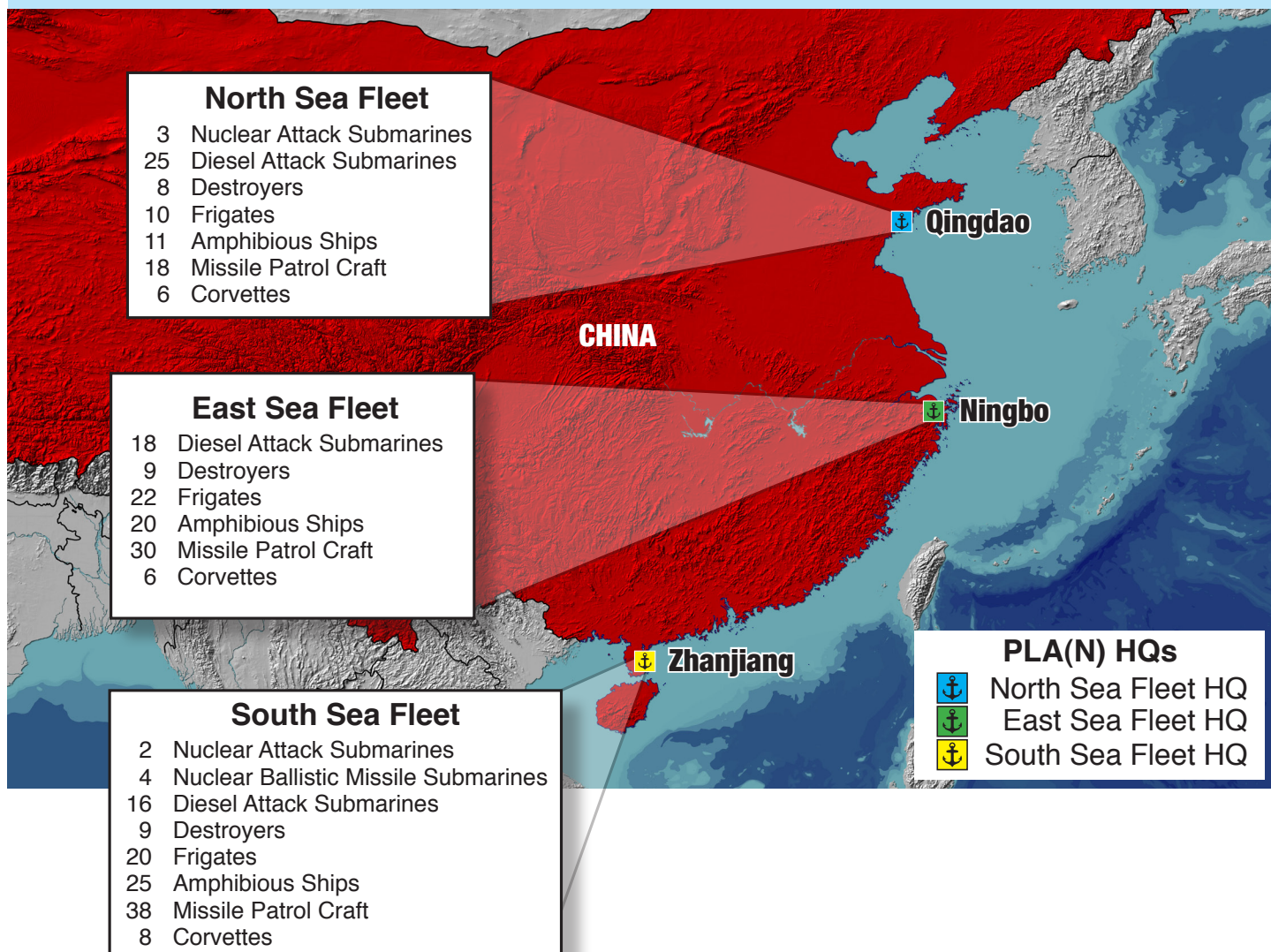
Likewise, the PLA-Navy Air Force continues improving its capabilities. It is better equipped to project air power from shore and has begun the difficult journey towards carrier aviation. Two months after the carrier LIAONING was commissioned in 2012, J-15 aircraft successfully conducted their first-ever carrier-based take-off and landings. Full integration of a carrier air regiment remains several years in the future, but remarkable progress has been made already. Chinese officials acknowledge plans to build additional carriers but they have not publicly indicated whether the next carrier will incorporate catapults or which aircraft they plan to embark.

With a greater percentage of the force consisting of large, multi-mission combatants capable of blue water operations, the PLA(N) will have an increasing capability to undertake missions in far seas, and is assuming its place among the most powerful navies in Asia. Additionally, the introduction of long-range anti-ship cruise missiles (ASCM), non-PLA(N) weapons such as the DF-21D anti-ship ballistic missile (ASBM), and the requisite Command, Control, Communications, Computers, Intelligence Surveillance and Reconnaissance (C4ISR) architecture to provide targeting data will allow China to expand its combat capability further into the Philippine and South China Seas.

## Multi-Mission Platforms

In the initial stages of China's modernization drive, the PLA(N) successfully concentrated resources on

**Figure 2-1. PLA(N) Fleet Composition**



improving its antisurface warfare (ASUW) capabilities, both in surface and submarine development. Subsequent efforts to improve anti-air warfare (AAW) capabilities were evident with the surface force, along with modest improvements in antisubmarine capability.

Every major PLA(N) surface combatant currently under construction is capable of embarking a helicopter, an addition that supports over-the-horizon targeting (OTH-T), antisubmarine warfare (ASW), and search and rescue. Meanwhile, the submarine force remains largely concentrated on ASUW, with the JIN-class SSBN poised to strengthen China's nuclear deterrent once the vessel begins strategic patrols in the near future. Naval aviation is widening its mission set by incorporating more diverse aircraft and capabilities, including airborne

early warning, carrier aviation, and unmanned aerial vehicles. As a whole, although some older platforms remain in the inventory, the PLA(N) is clearly shifting to a force employing assets that are able to execute a wide variety of missions both near and far from home.

### **PLA(N) Surface Force**

Less than a decade ago China's naval surface force was an eclectic mix of vintage, modern, converted, imported, and domestic platforms, which utilized a variety of weapons and sensors with wide-ranging capabilities. In the late 1990s to early 2000s, the PLA(N) transitioned from a "green water" force to one capable of operating offshore. During this period China imported several major combatants, weapon systems, and sensors from Russia while concurrently producing and developing its own

**Figure 2-2. PLA(N) Rapid Modernization**



*PLA(N) has concentrated on precision warfare against a modern adversary.*

designs. By the second decade of the 2000s, the PLA(N)'s surface production shifted to platforms using wholly Chinese designs and that were primarily equipped with Chinese weapons and sensors (though some engineering components and subsystems remain imported or license-produced in country). Furthermore, the era of small class design runs has given way to series production of multiple new destroyer, frigate, and corvette classes as China's rapid technological advancement in naval design begins to approach a level commensurate with other modern navies.

As of this publishing, the PLA(N) consists of approximately 26 destroyers (21 of which are considered modern), 52 frigates (35 modern), 20 new corvettes, 85 modern missile-armed patrol craft, 56 amphibious ships, 42 mine warfare ships (30 modern), more than 50 major auxiliary ships, and more than 400 minor auxiliary ships and service/support craft. During 2013, more than 60 total naval ships and craft were laid down, launched, or commissioned; we expect a similar number by the end of 2015. In 2013 and 2014,

China launched more naval ships than any other country and is expected to continue this trend through 2015-16.

In recent years, shipboard air defense is arguably the most notable area of improvement on PLA(N) surface ships. China has retired several legacy destroyers and frigates that had at most a point air defense capability, with a range of just several miles. Newer ships entering the force are equipped with medium-to-long range area air defense missiles. The PLA(N) produced a total of six LUYANG II-class (Type 052C) destroyers with the HHQ-9 surface-to-air missile (~55 nm), and is now receiving the new LUYANG III-class (Type 052D) destroyer, which carries an extended-range variant of the HHQ-9. Additionally, at least 20 JIANGKAI II-class (Type 054A) frigates are now operational with the vertically-launched HHQ-16 (~20-40 nm), with more under construction.

These newer platforms use modern combat management systems and air-surveillance sensors, such as the





LUYANG II DDG Type 052C



LUYANG III DDG Type 052D



JIANGKAI II FFG Type 054A

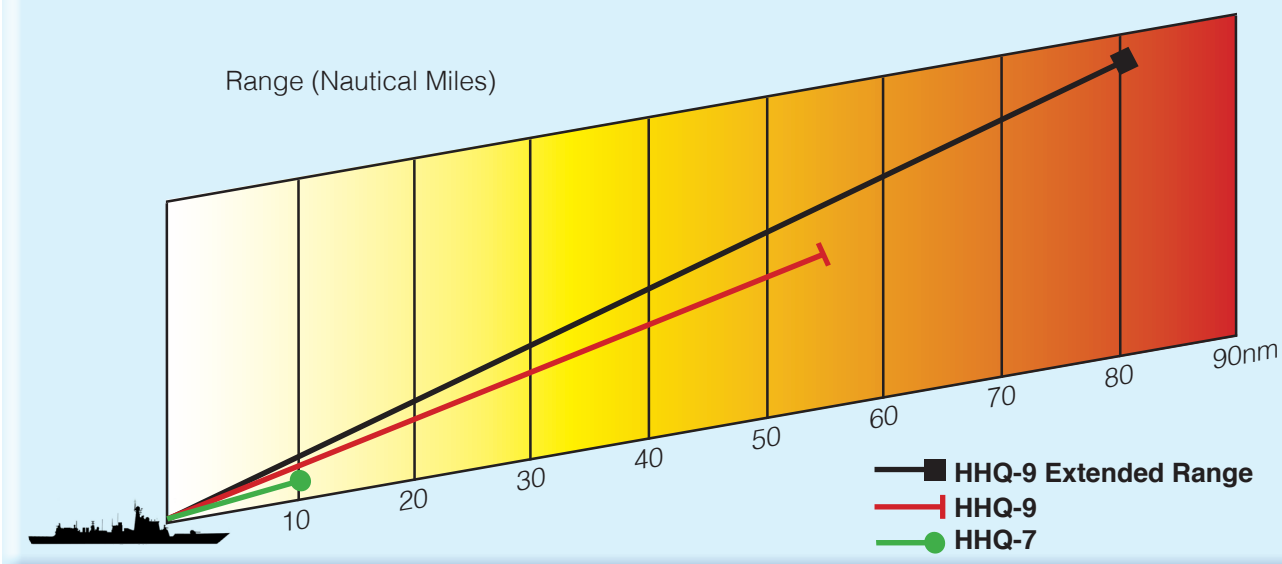
Chinese SEA EAGLE and DRAGON EYE phased-array radar. While some older platforms with little or no air defense capability remain in the PLA(N) inventory, the addition of these new units allows the PLA(N) surface force to operate with increased confidence outside of shore-based air defense systems, as one or two ships are equipped to provide air defense for the entire task group.

The PLA(N) continues to emphasize ASUW as a core strength, with continued development of advanced ASCMs and OTH-T systems. Most combatants still carry variants of the YJ-83 ASCM, while the LUYANG destroyer is fitted with the YJ-62, and the newest class, the LUYANG III destroyer is fitted with the new vertically-launched YJ-18 ASCM. While the maximum effective ranges of the export variants of the YJ-83 family (C802, C802A) and YJ-62 family (C602) are advertised as 65nm, 100nm, and

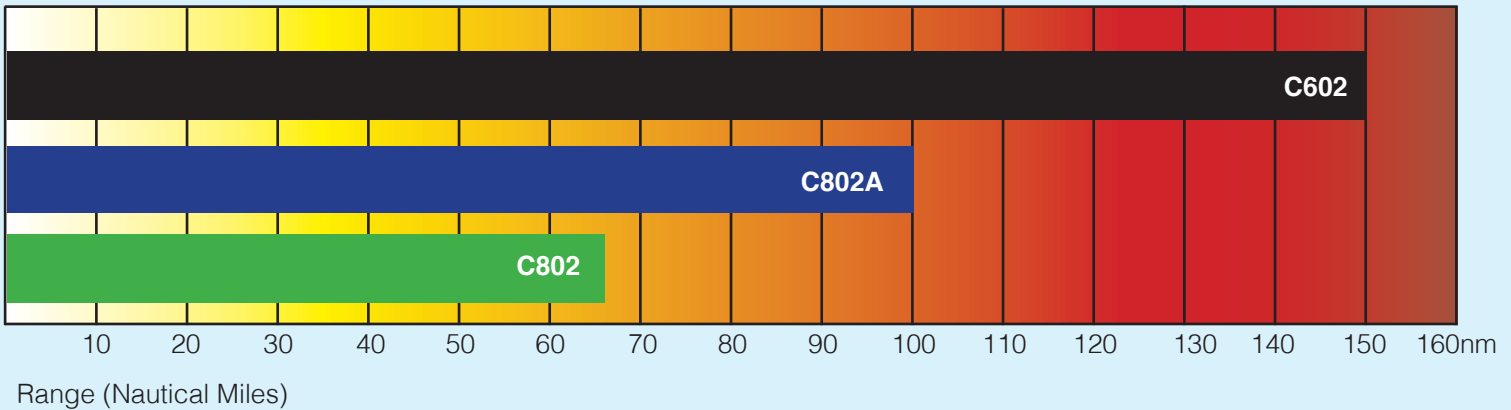
650nm respectively, it is likely the domestic versions of these systems have much longer ranges. A new cruiser to be built in China in the latter half of the decade will carry a variety of antisurface weapons, some of which will be newly developed. The PLA(N) recognizes that these extended-range weapons require OTH-T capability to realize their full potential and has invested in maritime reconnaissance systems at the national and tactical levels, as well as communication systems such as datalinks, to provide targeting information to launch platforms.

Historically, ASW has lagged behind ASUW and AAW as a priority for the PLA(N). Although ASW remains a relative capability gap, recent new-construction classes are equipped with a variety of new sonar systems, including towed arrays and variable-depth sonars, as well as hangars to support embarked helicopters.

**Figure 2-3. Naval Surface-to-Air Missile Ranges**



**Figure 2-4. Surface Antiship Cruise Missile Ranges**



During the past two decades, China phased out hundreds of Cold War-era OSA and HOUKU-class missile patrol boats and gun-armed SHANGHAI and HAINAN-class patrol craft (among others) as the PLA(N) transitioned from coastal defense missions towards offshore and far seas operations. However, China retains a modern coastal-defense and area-denial capability with 60 HOUBEI (Type 022) class missile patrol craft (PTG) built in the mid-2000s to supplement 25 1990s-vintage HOUJIAN and HOUXIN-class missile patrol combatants. The HOUBEI design integrates a high-speed wave-piercing catamaran hull, waterjet propulsion, signature-reduction features, and the YJ-83 family ASCM. Although poorly equipped for offshore patrol duties, the HOUBEI is valuable for reacting to specific threats in China’s exclusive economic zone (EEZ) and slightly beyond.

In 2012, China began producing the new JIANGDAO-class (Type 056) corvette (FFL), which offers precisely the flexibility that the

HOUBEI lacks. The JIANGDAO is equipped to patrol China’s claimed EEZ and assert Beijing’s interests in the South China and East China Seas. The 1500-ton JIANGDAO is equipped with 76mm, 30mm, and 12.7mm guns, four YJ-83 family ASCMs, torpedo tubes, and a helicopter landing area. The JIANGDAO is ideally-suited for general medium-endurance patrols, counterpiracy missions, and other littoral duties in regional waters, but is not sufficiently armed or equipped for major combat operations in blue-water areas. At least 20 JIANGDAOs are already operational and 30 to 60 total units may be built, replacing both older small patrol craft as well as some of the PLA(N)’s aging JIANGHU I-class (Type 053H) frigates (FF).



JIANGDAO FFL Type 056



HOUBEI PTG Type 022



JIANGHU I FF Type 053H



China's amphibious ship force has remained steady in recent years after a modernization program in the early 2000s. China has built four large YUZHAO (Type 071) class amphibious

transport docks (LPD), which provide a considerably greater and more flexible capability than the older landing ships, signaling China's development of an expeditionary warfare and OTH amphibious assault capability, as well as inherent humanitarian assistance/disaster relief (HA/DR) and counterpiracy capabilities. The YUZHAO can carry up to four of the new air cushion landing craft YUYI LCUA (similar to LCAC), as well as four or more helicopters, armored vehicles, and troops on long-distance deployments. Additional YUZHAO construction is expected in the near-term, as is a follow-on amphibious assault ship (LHA) that is not only larger, but incorporates a full-deck flight deck for helicopters. Low numbers of YUTING II LSTs are currently being built to replace older YUKAN units that are reaching the ends of their service lives.

An expanded set of missions further into the western Pacific and Indian Ocean, such as counterpiracy deployments, HA/DR missions, survey voyages, and goodwill port visits have increased demands on the PLA(N)'s fleet of ocean-going replenishment and service vessels. In 2013 China added two new FUCHI-class replenishment oilers (AORs), bringing the total AOR force to seven ships; two more were launched in 2014. These ships constantly rotate deployments in support of China's Gulf of Aden (GOA) counterpiracy deployments.

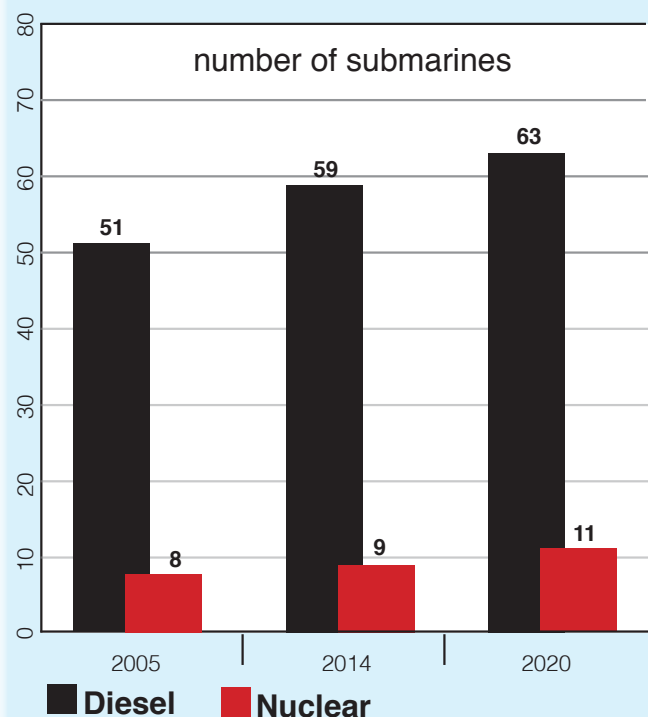
The PLA(N) also recently added three state-of-the-art DALAO-class submarine rescue ships (ASR), which use the LR-7 submersible, and three DASAN-class fast-response rescue ships (ARS), which have a tri-maran hull form. Other recent additions include the ANWEI-class hospital ship (AH), the DANYAO I/II-class AF (island resupply ships), YUAN WANG-class 5 and 6 (satellite and rocket launch telemetry), five KANHAI-class AG (SWATH-hull survey ships), two YUAN WANG 21 missile tenders (AEM), and the large DAGUAN-class AG, which provides berthing and logistical support to the

KUZNETSOV-class aircraft carrier LIAONING. In addition, several new DONGDIAO-class intelligence collection ships (AGI) have been launched since early 2013 and have begun to join the fleet, bringing China's fleet of DONGDIAOs to four at present. Several additional large, specialized auxiliary ship construction programs are currently underway as well, including new icebreakers and logistical support ships for South China Sea operations.

## PLA(N) Submarine Force

Similar to the surface force, China's submarine force appears to be concentrating on a smaller mix of units when compared to the late 1990s and early 2000s, suggesting the PLA(N) is more satisfied with current designs. For its diesel-electric force alone, between 2000 and 2005, China constructed MING-class SS, SONG-class SS, the first YUAN-class SSP, and purchased an additional eight KILO-class SS from Russia. While all of these classes remain in the force, only the YUAN SSP is currently in production. Reducing the number of different classes in service helps streamline maintenance, training, and interoperability. Currently, the submarine force consists

**Figure 2-5. PLA(N) Ratio of Diesel to Nuclear Submarines**



of five nuclear attack submarines, four nuclear ballistic missile submarines, and 57 diesel attack submarines. By 2020 the submarine force will likely grow to more than 70 submarines.

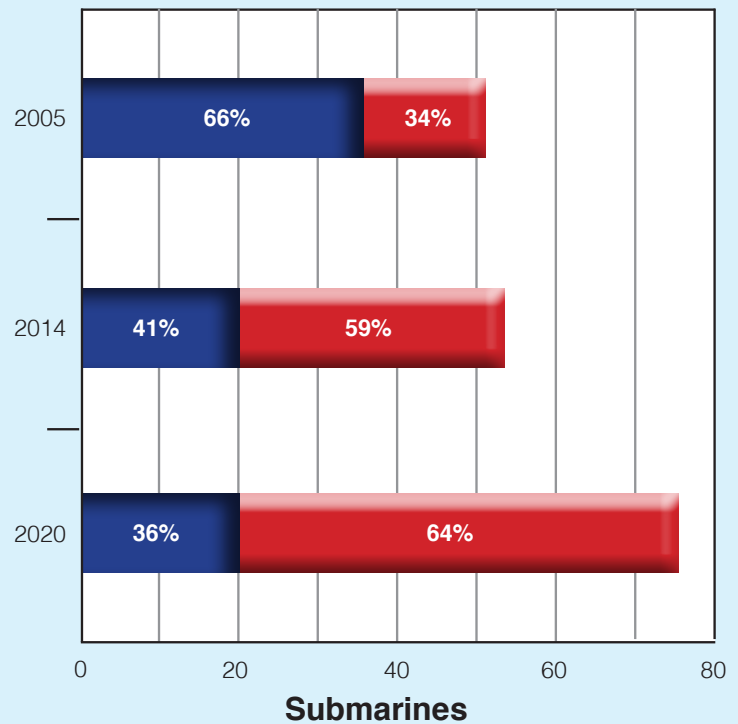
China's submarine force is very different from that of the U.S. Navy, but has characteristics that are well suited for its more limited mission set. Most of China's submarine force is conventionally powered, with ASCMs, but without towed arrays. These submarines are optimized for regional missions that concentrate on ASUW near major SLOCs. China's small nuclear attack submarine force is more capable of operating further from the Chinese mainland, conducting intelligence, surveillance and reconnaissance (ISR), and ASUW missions. China's submarines are not currently optimized for two missions at the core of U.S. submarines—ASW and land attack.

The YUAN SSP is China's most modern conventionally powered submarine. Twelve are currently in service, with as many as eight more slated for production. Its combat capability is comparable to the SONG SS, as both are capable of launching Chinese-built ASCMs, but the YUAN SSP has the added benefit of an air independent power (AIP) system and may have incorporated quieting technology from the Russian-designed KILO SS. The AIP system provides a submarine a source of power other than battery or diesel engines while the vessel still submerged, increasing its underwater endurance, and therefore reducing its vulnerability to detection.

The remainder of the conventional submarine force is a mix of SONG SS, MING SS, and Russian-built KILO SS. Of these, only the MING SS and four of the older KILO SS lack an ability to launch ASCMs. Eight of China's 12 KILO SS are equipped with the SS-N-27 ASCM, which provides a long-range antisurface capability out to approximately 120 nm. China's newest indigenous submarine-launched ASCM, the YJ-18, extends a similar capability to the SONG, YUAN, and SHANG classes. Previously, China's only indigenous sub-launched ASCM was the YJ-82, which has a much shorter range.

China also continues to modernize its nuclear-powered attack submarine force, although it continues to be a relatively small percentage of the total number of

**Figure 2-6. PLA(N) Ratio of Antiship Cruise Missile Equipped Submarines**



submarines. The SHANG-class SSN's initial production run stopped after only two hulls that were launched in 2002 and 2003. After nearly 10 years, China is continuing production with four additional hulls of an improved variant, the first of which was launched in 2012. These six total submarines will replace the aging HAN class SSN on nearly a one-for-one basis in the next several years. Following the completion of the improved SHANG SSN, the PLA(N) will progress to the Type 095 SSN, which may provide a generational improvement in many areas such as quieting and weapon capacity.

Perhaps the most anticipated development in China's submarine force is the expected operational deployment of the JIN-class SSBN, which will mark China's first credible at-sea second-strike nuclear capability. The JL-2 submarine launched ballistic missile (SLBM), has nearly three times the range of the XIA-class SSBN's JL-1 SLBM, which was only able to range targets in the immediate vicinity of China. The JL-2 SLBM underwent successful testing in 2012 and is likely ready to enter the force. Once deployed, the JIN/JL-2 weapon system

will provide China with a capability to strike targets on the continental United States. To maintain a continuous peacetime presence, the PLA(N) would likely require a minimum of five JIN SSBNs; four are currently in service.

## PLA(N) Air Forces

The role of the PLA(N) Air Force (PLANAF) has been steadily evolving for the past decade as navy combatants range farther from shore and are more capable of providing their own air defense. This has allowed the PLANAF to concentrate on an expanded array of missions, particularly maritime strike, but also including maritime patrols, ASW, airborne early warning, and logistics. The advent of the LIAONING aircraft carrier signals a new age for the PLANAF, which will now evolve from an almost exclusively land-based force to possessing a sea-based component.

## Helicopters

The PLA(N) operates three main helicopter variants: the Z-9, the Z-8, and the HELIX. The first helicopter and the primary helicopter operated by the PLA(N) is the Z-9C. In the early 1980s, China obtained a license to produce the AS 365N Dauphin II helicopters and its engines from Aerospatiale (now Eurocopter). The AS 365s produced in China were labeled as the Z-9, and the naval variant was designated “Z-9C.”

Known to be flying by 2000, the Z-9C is capable of operating from any helicopter-capable PLA(N) combatant. The Z-9C can be fitted with the KLC-1 search radar, dipping sonar, and is usually observed with a single, lightweight torpedo. A new roof-mounted electro-optical (EO) turret, unguided rockets, and 12.7mm machine gun pods have been seen on several Z-9Cs during counterpiracy deployments. The PLA(N) has approximately 20 operational Z-9Cs in its inventory. An upgraded naval version, designated the Z-9D, has been observed carrying ASCMs.

The Z-8 is also a Chinese-produced helicopter based on a French design. In the late 1970s, the PLA(N) took delivery of the SA 321 Super Frelon, which was reverse engineered and designated the Z-8. The Z-8 made its maiden flight in 1985 and reached initial operational capability by 1989. Low-rate production continued through the 1990s and into the early 2000s; however, production has recently accelerated because of the development of upgraded versions.

The Z-8 is a medium lift-helicopter. Although capable of a wide variety of missions, it is generally employed for search and rescue, troop transport, and logistical support roles.

The Z-8 is usually seen with a rescue hoist and a nose radome and usually operates unarmed. Other equipment may include an EO turret and a search light; during counterpiracy deployments, several Z-8s were seen with weapons pylons that are capable of carrying up to four armament pods—the same rocket and 12.7 mm machine gun pods seen on the Z-9Cs.



Z-9C



Ka-28 HELIX



Z-8

Although the Z-8's size provides a greater cargo capacity compared to other PLA(N) helicopters, it also limits its ability to deploy from most PLA(N) combatants. The Z-8 and a Z-8 variant, possibly called the Z-18, have been observed operating with LIAONING. The Z-18 is an AEW variant that has been observed since 2009. A large cylindrical radar antenna is stowed aft of the main cabin's rear-loading ramp or door and is lowered during operations allowing the antenna to rotate 360 degrees. Another version of the Z-8 that has been operating in the maritime environment is a medical evacuation (MEDEVAC) variant, designated the Z-8JH. It is similar to other Z-8s, except for the large red-cross insignia on the tail and fuselage. The Z-8JH has been seen deployed on the ANWEI AH.

Variants of the HELIX are the only imported helicopters operated by the PLA(N). In 1999, the PLA(N) took delivery of an initial batch of eight Russian-built HELIX helicopters. Five were reportedly Ka-28 HELIX A and three were Ka-27PS HELIX D helicopters. The PLA(N) ordered nine

more aircraft in October 2009, and it is likely that all 17 HELIX helicopters are operational. Like the Russian Ka-27, the exported Ka-28s can be used for several mission sets but are usually used for ASW, while the Ka-27PS are optimized for search and rescue and logistical support missions. The Ka-28 is fitted with a search radar and dipping sonar and can also employ sonobuoys, torpedoes, depth charges, or mines. In 2010, China purchased nine Ka-31 AEW helicopters and the E-801 radar system. The radar antenna is mounted underneath the main body of



Su-30MK2 FLANKER G



J-10A FIREBIRD A



J-11B FLANKER L

the aircraft, and when the antenna is deployed in flight, the helicopter's landing gears retract to allow the antenna to rotate 360 degrees. To keep pace with the rest of the PLA(N) and meet growing demand for embarked helicopters, the helicopter fleet will probably experience continued growth in the foreseeable future.

### Fixed-wing Aircraft

During the past two decades, the PLANAF has made great strides in moving beyond its humble origins. Antiquated

fixed-wing aircraft such as the Nanchang Q-5 Fantan and the Harbin H-5 Beagle have given way to an array of relatively high-quality aircraft. This force is equipped for a wide range of missions including offshore air defense, maritime strike, maritime patrol, antisubmarine warfare, and, in the not too distant future, carrier-based operations. Just a decade ago, this air modernization relied very heavily on Russian imports. Following in the footsteps of the People's Liberation Army Air Force (PLAAF), the PLA(N) has recently begun benefitting from domestic combat aircraft production.

Historically, the PLA(N) relied on older Chengdu J-7 variants and Shenyang J-8B/D Finback fighters for offshore

air defense. These aircraft offered limited range, avionics, and armament. The J-8 is perhaps best known in the West as the aircraft that collided with a U.S. Navy EP-3 reconnaissance aircraft in 2001. The PLA(N)'s first major air capability upgrade came with the Su-30MK2 FLANKER. While the PLAAF had received numerous FLANKER variants from Russia between 1992 and 2002, the PLA(N) did not acquire its initial aircraft until very late in that process.

In 2002, China purchased 24 Su-30MK2, making it the first 4th-generation fighter aircraft fielded with the PLA(N). These aircraft feature both an extended range and maritime radar systems. This allows the Su-30MK2 to strike enemy ships at long distances,

while maintaining a robust air-to-air capability. Several years later, the PLA(N) began replacing its older J-8B/D with the newer J-8F variant. The J-8F featured improved armament such as the PL-12 radar-guided air-to-air missile, upgraded avionics, and an improved engine with higher thrust. Today, the PLA(N) is taking deliveries of modern domestically produced 4th-generation fighter aircraft such as the J-10A Firebird and the J-11B FLANKER. Equipped with modern radars, glass cockpits, and armed with PL-8 and PL-12 air-to-air missiles, PLA(N) J-10A and J-11B are among the most modern aircraft in China's inventory.

For maritime strike, the PLA(N) has relied on the H-6 BADGER bomber for decades. The H-6 is a licensed copy of the ex-Soviet Tu-16 BADGER medium jet bomber, maritime versions of which can employ advanced ASCMs against surface targets. Despite the age of the design, the Chinese H-6 continues to receive electronics and payload upgrades, which keep the aircraft viable. We think as many as 30 of these aircraft remain in service. Noted improvements for the upgraded BADGER include the ability to carry a maximum of four ASCMs, rather than the two previously seen on earlier H-6D variants. Some H-6 have also been modified as tankers, increasing the PLA(N)'s flexibility and range.



H-6



JH-7 FLOUNDER

With at least five regiments fielded across the three fleets, the JH-7 FLOUNDER augments the H-6 for maritime strike. The JH-7 is a domestically produced tandem-seat fighter/bomber, developed as a replacement for obsolete Q-5 Fantan light attack aircraft and H-5 Beagle bombers. Updated versions of the JH-7 feature a more capable radar and additional weapons capacity, enhancing its maritime strike capabilities. The JH-7 can carry up to four ASCMs and two PL-5 or PL-8 short-range air-to-air missiles, providing considerable payload for maritime strike missions.

In addition to combat aircraft, the PLA(N) is expanding its inventory of fixed-wing maritime patrol aircraft (MPA), airborne early warning (AEW), and surveillance aircraft. China has achieved significant new capabilities by modifying several existing airframes. The Y-8, a Chinese license-produced version of the ex-Soviet An-12 Cub, forms the basic airframe for several PLA(N) special mission variants. All of these aircraft play a key role in providing a clear picture of surface and air contacts in the maritime environment. As the PLA(N) pushes farther from the coast, long-range aircraft capable of extended on-station times to act as the eyes and ears of the fleet become increasingly important.

Internet photos from 2012 indicated the development of a Y-9 naval variant that is equipped with a MAD (magnetic anomaly detector) boom, typical of ASW aircraft. This Y-9 ASW variant features a large surface search radar mounted under the nose as well as multiple blade antennae on the fuselage for probable electronic surveillance. Also present is a small EO/IR turret just aft of the nose wheel and an internal weapons bay forward of the main landing gear. The fact that this aircraft appeared in a primer yellow paint scheme indicates that it was under development and probably has not yet entered service.

Finally, and perhaps most notably, with the landing of the first J-15 carrier-based fighter aboard LIAONING in November 2012, the PLA(N) took its first major

step toward a carrier-based aviation capability. The development of LIAONING and the first J-15 aircraft are covered in a dedicated section later in this chapter.

## Unmanned Aerial Vehicles

China continues developing multi-mission unmanned aerial vehicles (UAVs) for the maritime environment and may have begun integrating UAVs into its operations to enhance situational awareness. For well over a decade, China has actively pursued UAV technology and now ranks among a handful of countries involved in UAV technology and development. China recently unveiled its first prototype unmanned combat aerial vehicle (UCAV), Lijan, which features a blended-wing design and low observable technologies.



BZK-005



S-100

The PLA(N) will probably emerge as one of China's most prolific UAV users, employing UAVs to supplement manned ISR aircraft as well as to aid targeting for land-, ship-, and other air-launched weapons systems. UAVs will probably become one of the PLA(N)'s most valuable ISR assets. They are ideally suited for this mission set because of their long loiter time, slow cruising speed, and ability to provide near real-time information through the use of a variety of onboard sensors. In the near term, the PLA(N) may use strategic UAVs such as the BZK-005 or the Soaring Dragon to monitor the surrounding maritime environment. In addition to land-based



KJ-200 MOTH



Y-8 MASK



Y-9 ASW

systems, the PLA(N) is also pursuing ship-based UAVs as a supplement to manned helicopters. To date, we have observed the PLA(N) operating the Austrian Camcopter S-100 rotary-wing UAV from several surface combatants. Following initial evaluation and deployment of the Camcopter S-100, the PLA(N) will likely adopt a domestically produced UAV into ship-based operations.

## China's Aircraft Carrier Program

With spectacular ceremony in September 2012, China commissioned LIAONING, joining the small group of countries that possess an aircraft carrier. Since that time, the PLA(N) has continued the long and dangerous path of learning to operate fixed-wing aircraft from a carrier. The first launches and recoveries of the J-15 aircraft occurred in November 2012, with additional testing and training in early July 2013. With the first landing complete, China became only the fifth country in the world to possess conventional takeoff and landing fighters aboard an aircraft carrier. Nonetheless, it will take several years before Chinese carrier-based air regiments are operational.

LIAONING is quite different from the U.S. Navy's NIMITZ-class carriers. First, since LIAONING is smaller, it will carry far fewer aircraft in comparison to a U.S.-style carrier air wing. Additionally, the LIAONING's ski-jump configuration significantly restricts aircraft fuel and ordnance loads. Consequently, the aircraft it launches have more a limited flight radius and combat power. Finally, China does not yet possess specialized supporting aircraft such as the E-2C Hawkeye.

Unlike a U.S. carrier, LIAONING is not well equipped to conduct long-range power projection. It is better suited to fleet air defense missions, where it could extend a protective envelope over a fleet operating in blue water. Although it possesses a full suite of weapons and combat systems, LIAONING will likely offer its greatest value as a long-term training investment. This "starter carrier" will enable the PLA(N) to train its first groups of pilots and deck crews in areas critical to conducting carrier aviation. China's follow-on carriers will inevitably offer platform improvements, eventually including a catapult launching system.

China's first carrier air regiment will consist of the Shenyang J-15 Flying Shark, as it is known in China, which is externally similar to the Russian Su-33 FLANKER D. However, in a pattern typical of Chinese military systems indigenization, the aircraft is thought to possess many



LIAONING CV-16

KUZNETSOV-class

of the domestic avionics and armament capabilities of the Chinese J-11B FLANKER. Notable external differences between the J-15 and J-11B include folding wings, strengthened landing gear, a tailhook under a shortened tail stinger, two-piece slotted flaps, canards, and a retractable in-flight refueling probe on the left side of the nose.

Likely armament for the J-15 will include PL-8 and PL-12 air-to-air missiles similar to the J-11B and modern ASCMs similar to those carried by the JH-7. Six J-15 prototypes are currently involved in testing, and at least one two-seat J-15S operational trainer had begun flight testing as of November 2012. The first landings aboard LIAONING came three years after the J-15's maiden flight in summer 2009. In the months preceding the landings, the PLA(N) conducted multiple J-15 approaches. Production J-15 aircraft are now rolling off the assembly line as China begins training its first regiment of carrier pilots.



J-15 Flying Shark

## Naval Mines

China has a robust mining capability and currently maintains a varied inventory estimated at more than 50,000 mines. China has developed a robust infrastructure for naval mine-related research, development, testing, evaluation, and production. During the past few years, China has gone from an obsolete mine inventory, consisting primarily



of pre-WWII vintage moored contact and basic bottom influence mines, to a vast mine inventory consisting of a large variety of mine types such as moored, bottom, drifting, rocket-propelled, and intelligent mines. The mines can be laid by submarines (primarily for covert mining of enemy ports), surface ships, aircraft, and by fishing and merchant vessels. China will continue to develop more advanced mines in the future such as extended-range propelled-warhead mines, antihelicopter mines, and bottom influence mines more able to counter minesweeping efforts.

China has also invested heavily in improving its mine countermeasure (MCM) capabilities. A number of advanced, dedicated MCM vessels have joined the fleet in recent years, including the capable WOCHI-class minehunting ships (MHS) and new WOZANG-class minehunters acting as mother-ships to the remote-controllable WONANG-class inshore minesweepers (MSI). China is improving its minehunting capabilities with improved SONARs and mine neutralization vehicles. Chinese warfare exercises have routinely included both mining and mine countermeasure events.

## Maritime C4ISR

To effectively employ sophisticated naval platforms and long-range weaponry, any modern navy requires an advanced maritime command, control, computers, communication, intelligence, surveillance, and reconnaissance (C4ISR) capability. The ranges of modern ASCMs extend well beyond the range of a ship's own sensors. Emerging land-based weapons, such as the DF-21D ASBM with a range of more than 810 nm, are even more dependent on remote targeting. Modern navies must be able to effectively build a picture of all activities occurring in the air and sea.

For China, this provides a formidable challenge. Just to characterize activities in the “near seas,” China must build a picture covering nearly 875,000 square nautical miles (sqnm) of water- and air-space. The Philippine Sea—a key interdiction area in the event of a conflict over Taiwan or in the South China Sea—expands the battlespace by another 1.5 million sqnm. In this vast space, navies and coast guards from seven regional countries as well as several globally deploying nations combine with tens of

## Chinese Cyber Warfare Development

Cyber capabilities represent one of the most revolutionary changes to warfare in modern history. Many security experts have debated how and to what extent cyber will be employed during the next major conflict. Regardless of cyber's limitations or potential, we know that China is one of a handful of countries on the forefront of developing military cyber capabilities. China's 2010 Defense White Paper highlighted the importance of cybersecurity in China's national defense. Publicly, China has maintained that it is a

victim rather than an originator of cyber actions, but documents such as the 2013 Mandiant Report highlight the PLA's large cyber effort.

During peacetime, cyber espionage enables data collection for intelligence purposes and lays the groundwork for future cyber network attacks. During war, cyber attacks can constrain an adversary's actions, or act as a force multiplier when coupled with kinetic attacks. Strategic Chinese military writings do not specifically deal with

how China would employ cyber operations in a maritime environment, although they do make clear the importance of cyber operations. The PLA highlights network warfare as one of the “basic modes of sea battle” alongside air, surface, and underwater long-range precision strikes.” As the PLA's larger military investment in emerging domains such as cyber matures, the application of cyber operations in the maritime realm will consequently bolster the PLA(N)'s capability.



thousands of fishing boats, cargo ships, oil tankers, and other commercial vessels.

China is developing a wide array of sensors to sort through this complex environment and contribute to its maritime picture.

The most direct method is reporting from the ships and aircraft that China operates at sea. These provide the most detailed and reliable information, but can only cover a fraction of the needed space. A number of ground-based coastal radars provide overlapping coverage of the area immediately off the coast, but their range is similarly limited.

To gain a broader view of the activity in its near and far seas, China has turned to more sophisticated sensors. The skywave OTH radar provides awareness of a much larger area than conventional radars by bouncing signals off the ionosphere. At the same time, China operates a growing array of reconnaissance satellites, which allow it to observe maritime activity anywhere on the earth. Two civilian systems also contribute to China's maritime awareness. The first is a coastal monitoring network for the Automatic Identification System (AIS)—an automated system required on most commercial vessels by the International Maritime Organization. China's Beidou system, installed on several thousand of its fishing boats, provides GPS-like navigation to the boats as well as automatic position reporting back to a ground station in China, allowing the location of the fishing fleet to be constantly monitored by fishing enforcement authorities.





# TRAINING, EXERCISES, AND JOINT OPERATIONS

## Overview

Much like the acquisition of advanced weapons, platforms, and sensors, the professionalization and training of PLA(N) personnel is an essential component of China's naval modernization. Sustained leadership emphasis on "realistic" and "complex" training has influenced training patterns and improved operational proficiency during the past decade. In late 2012, shortly after becoming General Secretary of the Communist Party of China (CPC) and Chairman of CPC Central Military Commission (CMC), Xi Jinping extolled the continued importance of cultivating "real combat" awareness throughout the military. Since the early 2000s, the PLA(N) has steadily increased the complexity of its training and exercises to meet the challenge of modern warfare.

Just over a decade ago, PLA(N) training was heavily dependent on an annual conscription cycle and focused almost exclusively on anti-surface warfare (ASUW). Recent exercises suggest the PLA(N) has strengthened its training cycle, has become relatively proficient in ASUW, is making notable gains in area air defense, and has seen some progress in deep water anti-submarine warfare (ASW). In addition to becoming more sustained and complex, training has expanded from China's littoral to areas within and beyond the First Island Chain. "Far seas" operations, particularly to the South China and Philippine Seas, have become routine in recent years. The PLA(N) has also improved coordination between its various branches. Finally, it has demonstrated a desire to operate in more realistic conditions featuring electronic warfare.

Before China's Gulf of Aden counterpiracy operations commenced in 2009, the PLA(N) was largely a training fleet, with very little operational experience. Since that time, the PLA(N) has conducted more than 19 counterpiracy missions, expanded its participation in multi-national exercises, and frequently patrolled near

disputed areas such as the Senkaku Islands, Scarborough Reef, and Second Thomas Shoal to promote China's claimed maritime rights and territorial sovereignty. This latter mission is one of increasing importance for the PLA(N), according to China's 2012 Defense White Paper. These operations provide the PLA(N) with valuable operational experience and increase confidence in its ability to assert PRC's interests within the region. The operations have also attracted the attention and, in some cases, concern of China's neighbors.

## Evolution of the Training Cycle

Until the early 2000s, PLA(N) training and proficiency levels were heavily contingent on the annual conscription cycle, and focused primarily on ASUW. Major training standdowns would occur in late November and last through the early part of the next year as new conscripts entered the force. Initial training consisted primarily of independent or unit-level basic warfare training. As the year progressed, more complex unit or flotilla-level training occurred. By mid-year, basic warfare drills transitioned to more advanced, coordinated warfare training, culminating in a series of year-end exercises. Following these exercises, units would stand down as new conscripts entered into the force, only to begin the cycle anew.

Today, however, the PLA(N) conducts complex multi-discipline warfare training throughout the year, and the scope of naval training has broadened to include more robust ASW and anti-air warfare (AAW) training, all of which are integrated using advanced Command, Control, Communications, Computers and Intelligence, Surveillance, and Reconnaissance (C4ISR) systems. Under the new model, general unit readiness is maintained at a higher level throughout the year, and the impact of new conscripts entering the force is less evident, particularly with the increasing maturity of China's noncommissioned officer corps.

The PLA(N) has replaced basic-level independent training with robust flotilla-level or combined arms training that includes coordinated air, surface, and submarine operations. Today's training cycle is defined by three levels of combat readiness, rather than a conscription cycle. "Level one" indicates that ships are fully operational and combat certified, "level two" indicates that ships have recently completed maintenance but are not combat certified, and "level three" indicates ships in a maintenance status. Under this model, individual unit proficiency and progression through the training cycle vary according to readiness levels.

The addition of more effective classroom training and shore-based simulation systems likely plays an important role in maintaining a high level of personnel readiness. These initiatives provide crews with basic and advanced hands-on training throughout the year, irrespective of ship availability or readiness level. This improves the overall quality of training and shortens the training cycle. In addition to shore-based simulators, vessel training centers (VTCs) help maintain year-round readiness levels. Located in each of the three fleets and subordinate to the fleet headquarters, VTCs provide crews with a variety of basic and advanced-level training by supplying technical and tactical foundation training, transition training for vessels recently outfitted with new weapons or equipment, and training instruction for new or returning ship commanders.

The PLA reportedly intends to further reform the training cycle during 2015. The PLA's training transformation will likely have the most significant impact on joint service integration, an area where progress has remained relatively slow. Anticipated changes include improved multi-service training, intended to increase integration among the services.

## **Training Guidelines and Reforms**

During the past several years, annual General Staff Department (GSD) training guidelines have directed the PLA to improve overall combat readiness by conducting training representative of actual wartime operations. Specific guidelines call for rigorous training based on "realistic" combat scenarios, "far seas" training, and an emphasis on information-based systems. China's most recent Defense White Paper noted efforts to intensify training for blue water deployments and operations in complex battlefield environments.

In 2015, the Navy Headquarters Military Training Department directed the PLA(N) to advance the complexity of training and exercises by emphasizing scenarios that emulate war-realistic settings. According to these guidelines, PLA(N) training and exercises should do the following:

- Increase training in accordance with real-war requirements.
- Strengthen command authority and relationships through realistic opposing force training.
- Deepen tactical innovation.
- Improve training in the actual use of weapons in an electromagnetic environment.
- Continue "far seas" training.
- Rectify training methods by avoiding formalism and scripting in exercises.
- Improve joint campaign-level training.

In addition to annual training guidelines, senior military leadership has outlined overarching goals for the PLA during the 12th Five-Year Plan (2011–15). These objectives include:

- Organize and improve multi-branch training.
- Strengthen integration of units and information-based systems.
- Focus training for "far seas" operations.
- Modernize management of training and standardize training evaluation and assessment process.
- Develop a strong base for simulation and network-based training.

## **"Far Seas" Training**

China's senior naval leadership characterizes "far seas" training and deployments (that is, those conducted at extended distances beyond routine Chinese local operating areas) as the new norm for China's Navy. While the PLA(N) has conducted the occasional long-range naval surface and submarine patrols since at least the early 1980s, trends over the last few years reflect an unambiguous shift in the frequency, complexity, and distance of Chinese naval operations. The PLA(N) now conducts routine surface deployments to the South China and Philippine Seas, including an unprecedented seven deployments to the Philippine Sea in 2012 and nine deployments in 2013. In 2014, a PLA(N) South Sea Fleet surface task group consisting of the amphibious dock landing ship "CHANGBAISHAN" and the missile destroyers "HAIKOU" and "WUHAN" conducted a

first-time training deployment to the Eastern Indian Ocean. Future surface deployments to the central and eastern Pacific are likely within the next five years.

“Far seas” training deployments serve multiple objectives. At the strategic level, they display the PLA(N)’s conventional deterrence capability and underscore Beijing’s desire to assert and defend its maritime rights and interests. Operationally, the deployments demonstrate the PLA(N)’s ability to conduct tasks associated with military operations other than war; they also emphasize “around-the-clock” 24-hour training, and they simulate situations closer to actual combat conditions. At the tactical level, far sea deployments enhance the PLA(N)’s core warfare proficiencies in ASUW, ASW, and AAW. They enable crews to practice various capabilities, including maritime escort, ship boarding, counterpiracy, counterterrorism, at-sea replenishment and sustainment, and opposing force drills.

In late-October 2013, the PLA(N) conducted a 15-day at-sea confrontation exercise in the Philippine Sea under the umbrella of MANEUVER-5. Accord to media reporting, MANEUVER-5 was supported by air and naval forces from the North Sea, East Sea, and South Sea Fleets. This was the first time the PLA(N) organized all three fleets for simultaneous open-ocean training and marked the largest PLA(N) exercise conducted in the western Pacific Ocean. PLA(N) Commander Admiral Wu Shengli emphasized that MANEUVER-5 was intended to be “combat-realistic.” Additionally, in December 2014, participants from all three of the PLA(N)’s fleets conducted a large-scale naval exercise in the western Pacific. During this exercise, PLA(N) participants focused on improving command decisionmaking, long-distance maneuver, and dynamic opposing force training.

In addition to “far seas” deployments beyond the First Island Chain, the PLA(N) has maintained two combatants and a naval auxiliary in the Gulf of Aden supporting counterpiracy operations since early 2009. Since those operations began, the PLA(N) has conducted more than 19 counterpiracy deployments to the Gulf of Aden, conducted escort operations for more than 6,000 China- and non-China-flagged ships and responded to numerous pirate attacks. In 2011, a PLA(N) vessel played a symbolic role in escorting civilian ferries carrying Chinese civilians who were evacuated from Libya. Marking another historic first, in 2014, the PLA(N) conducted naval operations in

the Mediterranean Sea in support of a UN-sponsored operation to remove chemical weapons from Syria.

## Opposing Force Training

As part the effort to enhance realism in training, the PLA(N) and PLANAF regularly incorporate “opposing forces play” into their exercises. The PLA(N) uses these confrontation drills to simulate combat scenarios and emphasize command and control and tactical decisionmaking. Accordingly, these interactions have become less scripted in recent years. This type of training is employed to evaluate a commander’s ability to develop and execute operational plans according to loosely defined objectives. These dynamic training events, which stress tactical flexibility, are occurring on a regular basis and at greater distances from the Chinese coast. The recent large-scale exercises conducted in the western Pacific in 2013 and 2014 are the best examples of this type of training, as they feature elements from all three fleets and near-continuous red-versus-blue training evolutions.

## Combat Support Operations

The PLA(N) has also begun employing operational support exercises, which feature various types of logistics support, as would likely be required in wartime. Logistics support is now featured prominently in most fleet-level and “far seas” deployments. This type of training usually consists of general fuel and stores replenishment, rescue and salvage operations of damaged ships, and emergency response and at-sea medical support. This training shift reflects recent directives to improve the capabilities of shore-based infrastructure and naval auxiliary units to support ships, submarines, and helicopters in wartime operations.

## Use of Advanced Training Aids

The PLA(N)’s increasing use of advanced training aids, including simulators and mobile targets, has also contributed to proficiency and year-round readiness. Employed on land, at sea, and in the air, these training aids simulate enemy combatants or incoming threats to improve tactical proficiency. The PLA(N) frequently employs advanced mobile targets equipped with passive and active jamming equipment to simulate a variety of threat scenarios. These advanced training aids can be easily reconfigured to simulate various targets, providing crews with highly dynamic training environments.

## Civil-Military Integration

During the past five years, tension over disputed land features and maritime rights in the East China and South China Seas have catalyzed PRC efforts to improve civil-maritime integration and effectively assert China's interests. Typically, Beijing prefers to employ its Coast Guard in the forefront of maritime sovereignty operations, with PLA(N) ships providing a less overt security guarantee. China has also utilized civilian fishing vessels to advance its maritime objectives. Coordinating the activities of these distinct organizations is an ongoing challenge that has important implications for China and for the region.

Recent PLA(N) exercises, training, and operational deployments have incorporated greater civil-military integration. In 2012, elements of the PLA(N)'s East Sea Fleet and Chinese maritime law enforcement conducted the exercise EAST CHINA SEA COOPERATION, which remains the largest combined civil-military exercise to date. The exercise focused on civil-military command integration, search and rescue operations, and emergency medical support.

In May 2013, the PLA(N) also participated in a six-day maritime medical and rescue exercise, HEALTH SERVICE MISSION 2013. According to PRC media, the exercise included the hospital ship PEACE ARK and mobilized civilian health services across multiple provinces. The exercise was intended to simulate combat-oriented medical support to forces involved in maritime defensive operations. Exercise serials consisted of maritime medical command and coordination and the timely at-sea triage of injured and sick personnel. Civil-military integration exercises will likely continue to expand in scope and frequency.

In May 2014, China's unilateral deployment of a deep-water oil rig in an area disputed with Vietnam touched off a diplomatic crisis between Beijing and Hanoi, and both sides deployed large numbers of coast guard ships, fishing vessels, and some naval combatants to the area. Ships rammed one another and China's Coast Guard deployed water cannons in the tense months to follow. The tense situation could have easily escalated into a military conflict. Beijing likely regards civil-military integration as essential in these types of disputes, both as a means to pressure rival claimants and as an instrument of retaining centralized control.

## Training in a Complex Electromagnetic Environment (CEME)

In accordance with PLA General Staff Department (GSD) training guidelines, the PLA(N) places heavy emphasis on training and exercising in a "complex electromagnetic environment" (CEME). In 2006, military training guidelines shifted from "training under mechanized conditions" to "training under informatized conditions." Since that time, complex electronic warfare training has remained a top priority for the PLA(N). To improve the realism and complexity of training, PLA(N) exercises have included greater numbers of "live" or "hostile" electronic environments. The PLA(N) has even developed an Electronic Countermeasures Simulation Training Center in the North Sea Fleet to assist with CEME training. In addition, PLA(N) ships, submarines, and occasionally aviation units exercise and train in simulated nuclear, biological, and chemical environments.

## Joint Training with Foreign Navies

During the last decade, the PLA(N) has actively promoted naval diplomacy through goodwill cruises and low-level joint exercises. Between September and December 2013, a three-ship task group from the North Sea Fleet conducted a historic deployment to South America, by way of a first-time transit through the Strait of Magellan, with stops in Chile, Brazil, and Argentina. The PLA(N) and the Russian Navy (RFN) also conducted two joint naval exercises, one in Russia in 2013 and the second in China in 2014. These exercises highlighted growing mutual security concerns within the region and paved the way for greater cooperation between the PLA(N) and RFN.

Marking another historic first and a milestone in U.S. Navy-PLA(N) relations, PLA(N) ships joined the 2014 Rim of the Pacific (RIMPAC) exercise in Hawaii. The PLA(N) dispatched a four-ship flotilla to RIMPAC, the largest surface contingent of any RIMPAC participant outside of the United States. This contingent included two advanced surface combatants, an auxiliary oiler, and a hospital ship. The PLA(N) ships participated in various gunnery, rescue and assist (R&A), boarding, and medical exercises in a multi-national task force, and PLA(N) performance was on par with many other participating navies. China's successful participation in RIMPAC highlighted its emergence as a capable navy in the Pacific and its increasing confidence in showcasing its own abilities.

## Developing Integrated Joint Operations

The ability of individual military services to work as a cohesive team in pursuit of common objectives, often at the tactical level, is essential in modern warfare. That is why PLA leaders have emphasized the development of “Integrated Joint Operations.” Despite its considerable rhetorical emphasis on achieving this goal, the PLA’s record of achievement appears mixed during the past decade. In practice, the PLA has approached the concept of jointness as different services operating toward a common goal in a joint or combined campaign, but often with operations separated by time and space. More recently, China’s analysis of U.S. military operations and other observations of modern warfare have convinced the PLA’s leadership to expand integration between the services to include enhanced joint operations at the tactical level.

Important doctrinal publications, such as the PLA National Defense University Press *Science of Campaigns*, place a high priority on joint warfare. The 2004, 2006, 2008, 2010, and 2012 Defense White Papers highlight the importance of Integrated Joint Operations, stating joint operations are the basic form of modern warfare and bring the operational strengths of different services into full play. The PLA’s General Staff Department promoted the 2009 *Outline for Military Training and Evaluation* as the new starting point for the adoption of Integrated Joint Operations.

In addition to doctrine, a number of the PLA professional military education (PME) institutions are increasing the level of joint PME within the Chinese military. On 28 November 2006, the command academies of the Army, Air Force, Navy, Second Artillery, and Nanjing Military Region signed a cooperative agreement to accelerate the development and education of joint commanders. According to official PLA press, at least a few senior military officers and a small number of mid-grade officers in China have attended the academies of sister services, although this practice is nowhere near as widespread as it is in the U.S. military. Additionally, it is not clear if accomplishing the appropriate levels of the PLA’s version of “Joint PME” is required for promotion, the way it is in the U.S. military.

Despite a rhetorical, doctrinal, and academic commitment to the development of Integrated Joint Operations, the PLA appears to have made sporadic progress at the operational level. In terms of tactical training, PLA media have published a number of articles on joint training exercises that include photographs of Army attack helicopters flying air cover for Navy ships in support of amphibious landing exercises, as well as discussion of Army, Air Force, and militia elements operating in the same command post during air defense training. According to one article, Air Force and Navy personnel operated together to provide logistics, air traffic control, and targeting support during an air force overwater strike training exercise.

Due in part to linguistic nuance, many reported instances of “joint” training might be characterized more accurately as “opposing force training.” For example, PLAAF aircraft attacking PLA(N) surface vessels or PLAAF aircraft acting as targets for PLA air defense forces are sometimes reported as “joint training.” Such opposing force play does not require the level of tactical and operational coordination that would be necessary for multiple services operating in concert toward a common goal. China characterizes exercises of any type with a foreign military as “joint” even though many of these training evolutions involve only small numbers of personnel from one service.

Exercise patterns reflect the desire to address gaps in joint capabilities. Every year since 2007, the Jinan Military Region of the PLA has conducted the LIANHE “joint” exercise in which all services of the PLA participate along



Joint command post exercise



with units from the People's Armed Police. According to PLA media, the LIANHE exercises are used to test and develop joint concepts for the whole of the PLA.

In non-tactical areas such as logistics, the PLA is successfully increasing operating efficiency through greater joint operations. Under an order issued by President Hu Jintao, the Jinan Military Region (MR) was chosen to lead the development of a theater-level joint logistics system. The "Great Joint Logistics" scheme was initially announced in April 2007 with the Jinan MR serving as a test case for the other six military regions in the PLA. Joint logistics concepts have since been promulgated to the remaining six military regions with significant success, according to official PLA media.

Although the PLA appears committed to pursuing Integrated Joint Operations, the Army's historic dominance over other services may complicate these efforts. Some officers have complained that the ongoing dominance of the "great infantry" concept across the military has affected the development of joint operations and training. To achieve true Integrated Joint Operations, the PLA will likely need to create a spirit of teamwork throughout the services by developing the training, doctrine, procedures, and equipment needed to foster such cooperation.

To become a modern, combat-capable navy, the PLA(N) has steadily implemented more realistic training during the past decade, as demonstrated by the normalization of "far seas" operations, dynamic opposing force training, and long-distance combat support exercises. Although some gaps remain, these training reforms have catalyzed sustained increases in the PLA(N)'s tactical warfighting proficiency. In particular, adjustments to the training cycle, personnel reform, and the push for greater levels of training complexity have improved the PLA(N)'s operational readiness.

PLA leaders and planners are committed to developing systems for conduct of joint operations, but they recognize the complexity of that task and are conscious of the fact that the PLA lacks real world experience. These factors likely moderate leadership expectations of what can be achieved and compel military leaders to take an iterative approach, relying heavily on top-down supervision by the GSD and frequent formal evaluations to ensure steady and measurable progress in a controlled environment before promulgating joint operations directives across the force.



# STRUCTURE AND LEADERSHIP

## Organization

The PLA(N) operates three fleets and controls all of China's Naval and Naval Air (PLANAF) forces as well as two marine brigades. The 13-member Navy Party Standing Committee is the Navy's senior-most decision-making organ and is responsible for the day-to-day administration of the PLA(N). Like the PLA's seven military regions (MRs), Air Force (PLAAF), and Second Artillery Corps (SAC), the PLA(N)'s organizational structure mirrors the PLA's four General Departments.

The Central Military Commission (CMC) sits at the top of China's national command structure. Chaired by Chinese Communist Party (CCP) General Secretary and PRC President Xi Jinping, this group oversees and sets policy for China's armed forces. The CMC currently consists of Chairman Xi Jinping, two uniformed vice chairmen, the heads of each of the General Departments of the PLA, and the Minister of National Defense (MND), as well as the commanders of the PLA(N), PLAAF, and Second Artillery.

The four General Departments of the PLA immediately beneath the CMC are:

- General Staff Department (GSD)
- General Political Department (GPD)
- General Logistics Department (GLD)
- General Armament Department (GAD)

PLA(N) Headquarters in Beijing is subordinate to the four General Departments, equal in grade to the PLA's seven MRs and to the other services. It consists of four first-level departments that perform leadership and administrative functions for the Navy and provide support to the operational fleets:

- **Headquarters Department:** Oversees PLA(N) administrative and functional departments including operations, training, communications, and

intelligence. The PLA(N) Chief of Staff is concurrently the Director of the Headquarters Department.

- **Political Department:** Responsible for all political work including discipline, officer assignments, propaganda, and security.
- **Logistics Department:** Handles construction of facilities, technical support to naval vessels, fuel, health care, finance, transportation, and other areas related to supply.
- **Armament Department:** Provides technical support to all PLA(N) equipment and weapons systems from concept development to retirement.

The PLA(N) has three geographically oriented fleets which direct day-to-day operations. The deputy commanders of each fleet command the respective aviation force.

- **North Sea Fleet:** Headquartered in Qingdao, the North Sea Fleet is responsible for the Bo Hai, Yellow Sea, and the northern portion of the East China Sea
- **East Sea Fleet:** Headquartered in Ningbo, the East Sea Fleet covers the majority of the East China Sea and the Taiwan Strait
- **South Sea Fleet:** Headquartered in Zhanjiang, the South Sea Fleet is responsible for the South China Sea, as well as the PLA(N)'s two marine brigades.

## Party Control

The PLA is a party (rather than a state) army, and the CCP exercises military control through the PLA's dual leadership system in which the commander and political commissar share responsibility and are usually equal in grade. Decisionmaking in the PLA(N), as in the rest of the PLA, is intended to be a consensus-based process. Party committees, which also exist at every echelon, are the decisionmaking organs in peacetime. Political commissars are usually Secretary or Chair of their unit's party committee, with the unit commander serving as Deputy Secretary. For

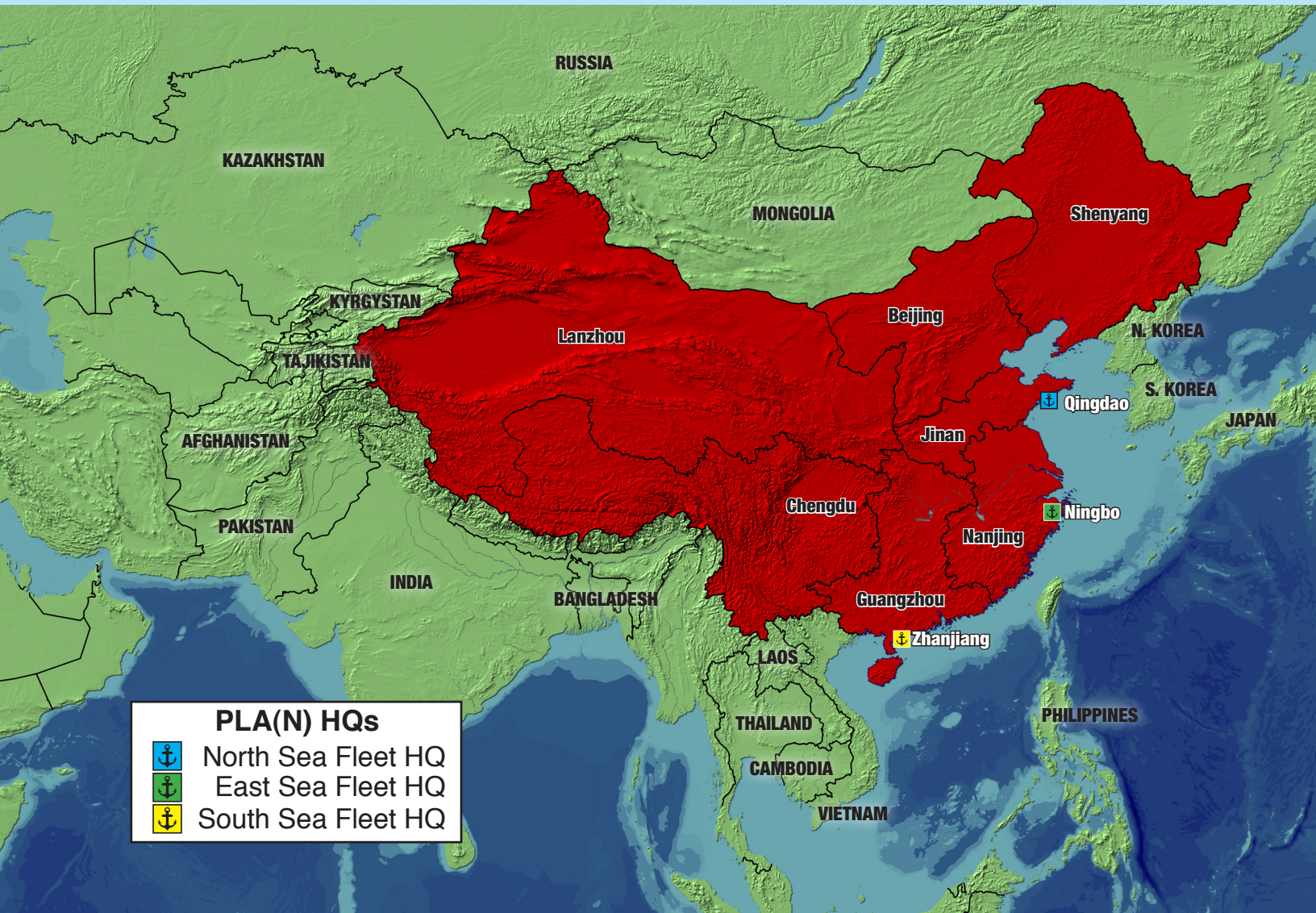
**Figure 4-1. Leadership Structure as of Feb 2015**



example, since Wu Shengli became PLA(N) Commander in August 2006, the PLA(N) has had three political commissars (ADM Hu Yanlin, ADM Liu Xiaojiang, and LTGEN Miao Hua), all of whom served as Secretary of the Navy Party Committee while Wu serves as Deputy Secretary.

At Navy Headquarters, the Party Committee convenes to address service-wide issues including operations, political work, logistics, armament, and a host of other issues. At the lower echelons of the service, such as the flotilla (zhidui) or vessel level, party committees convene to

**Figure 4-2. China Military Regions and Fleet Headquarters**



discuss specific operational objectives, such as reviewing navigation plans or improving the unit's emergency readiness. PLA(N) vessel leaders can convene party committee meetings while underway, but such meetings are intended to complement the unit's particular objectives.

PLA writings assert that political work should not interfere with or degrade military operations. Rather, PLA commentators and political officers often argue that political work—such as ensuring sailors understand the training plan, ensuring operational security, or even looking into a sailor's physical and mental health—is an enabler of military operations. Although there are likely to be exceptions, most political officers throughout the PLA(N) serve

in the same warfare area or fleet for decades, giving them as much familiarity with the unit as their commander counterpart and the personnel under their charge.



**Admiral Wu Shengli  
Commander, PLA(N)**

The Chinese government's April 2013 Defense White Paper, *The Diversified Employment of China's Armed Forces*, prominently called for the safeguarding of China's maritime rights and interests, protection of China's overseas interests, and securing international SLOCs. PLA(N) Commander, ADM Wu Shengli is responsible for building the force and preparing the navy to contend with this ever-expanding set of naval missions. He has led a major shift in naval operations, including naval operations at greater distances from China.

Admiral Wu Shengli was born in Zhejiang Province in August 1945. His father, a high-ranking official in the Zhejiang provincial government, gave him the name Shengli ("victory") in celebration of Japan's very recent defeat. Wu entered the PLA in 1964, shortly before China's Cultural Revolution.

Wu's princeling status (as the son of a high-ranking official) may have assisted him early in his military career, but it appears that his capabilities, not his lineage, were essential to his subsequent advancements. ADM Wu is a career surface-warfare officer who

has commanded a destroyer flotilla, a naval support base, and held several shore-based positions including East Sea Fleet Deputy Commander and South Sea Fleet Commander.

In 2004, ADM Wu was promoted to Deputy Chief of the General Staff Department (GSD). While at GSD, he was probably responsible for national defense mobilization issues. ADM Wu was appointed PLA(N) Commander in August 2006 and elected to the CMC in October 2007 and again at the 18th Party Congress in 2012. He is eligible to remain PLA(N) Commander until 2017.

## **The Navy Party Standing Committee**

The Navy Party Standing Committee (NPSC) is the Navy's senior-most decisionmaking organ, responsible for the day-to-day (peacetime) administration of the PLA(N), as well as dissemination and implementation of CMC directives. In this sense the NPSC is akin to a "Navy Politburo," whose members include the most senior and influential officers in the service. The NPSC

should not be confused with the larger Navy Party Committee, which numbers in the hundreds and comprises "elected" representatives from lower grade units; the NPSC currently consists of just 13 officers, including the PLA(N) Political Commissar and Commander. The size of the NPSC fluctuates depending on how many Deputy Commanders the PLA(N) has; currently there are five.

Figure 4-2.

# NAVY PARTY STANDING COMMITTEE



**LTGEN Miao Hua (1955)**  
PLA(N) Political Commissar (PC), Secretary, Navy Party Standing Committee (NPSC), Grade 3



**ADM Wu Shengli (1945)**  
CMC Member, PLA(N) Commander, Deputy Secretary, NPSC, Grade 2



**VADM Tian Zhong (1956)**  
PLA(N) Deputy Commander (DCDR), Member, NPSC, Grade 4



**VADM Du Jingchen (1952)**  
PLA(N) DCDR, Member, NPSC, Grade 4



**VADM Jiang Weilie (1955)**  
PLA(N) DCDR, Member, NPSC, Grade 4



**VADM Liu Yi (1955)** PLA(N) DCDR, Member, NPSC, Grade 4



**RADM Ding Yi (1959)**, PLA(N) DCDR, Member, NPSC, Grade 4



**VADM Wang Dengping (1952)**  
PLA(N) Deputy PC, Member, NPSC, Grade 4



**VADM Ding Haichun (1954/5)**  
PLA(N) Deputy PC, Member, NPSC, Grade 4



**RADM Qiu Yanpeng (1956)**  
PLA(N) Chief of Staff, Director, PLA(N) HQ Dept, Member, NPSC, Grade 4



**RADM Yang Shiguang**  
DIR, PLA(N) Political Dept, Member, NPSC, Grade 4



**RADM Xu Weibing**  
DIR, PLA(N) Logistics Dept, Member, NPSC, Grade 5



**RADM Wang Jianguo**  
DIR, PLA(N) Armament Dept, Member, NPSC, Grade 5

In addition to Admiral Wu Shengli, the following are members of the NPSC.



**LTGEN Miao Hua** (b. 1955) was transferred from the position of Political Commissar (PC) of the Lanzhou Military Region to PLA(N) PC in late December 2014. His appointment continues a precedent of non-navy officers serving in PLA(N) political officer billets, such as former PLA(N) PC Liu Xiaojiang and former South Sea Fleet PC Huang Jiaxiang. Miao was selected onto the 18th CCP Discipline Inspection Committee in 2012. He is eligible to remain PLA(N) PC through 2020, three years after ADM Wu is expected to retire.



**VADM Tian Zhong** (b.1956) is the most senior of the five PLA(N) Deputy Commanders. He has had a distinguished career as a PLA(N) surface warfare officer and previously commanded the North Sea Fleet. Tian

became a flag officer at the age of 45 and took command of the fleet at 51. Tian has also served in leadership positions in the North and South Sea Fleets. He has written articles on the navy's role in military operations other than war (MOOTW) and the importance of joint training in the PLA. Of note, since he was its commander, the North Sea Fleet has participated in the Jinan MR's "joint training pilot" program. In 2011, Tian participated in an international panel of naval officers in London, addressing the impact of piracy. Tian's strong foreign engagement experience also includes leading task groups and delegations to Russia and North Korea. In 2012, Tian was selected to the 18th CCP's Central Committee. He is eligible to remain a PLA(N) Deputy Commander until 2019, but it is likely he will promote to a higher grade assignment before then.



**VADM Du Jingchen** (b.1952) was laterally transferred from PLA(N) Chief of Staff to PLA(N) Deputy Commander in July 2014. A career surface warfare officer, Du has several notable achievements, including his selection to serve as the first task group commander of the PLA(N)'s counterpiracy deployment to the Gulf of Aden in 2009. His rapid promotion from South Sea Fleet Chief of Staff to East Sea Fleet Commander in December 2009 and subsequent

transfer to PLA(N) Chief of Staff in late 2010 reflects the confidence CMC leaders appear to have in Du's abilities. He is eligible to remain in his current positional grade through 2015.



**VADM Jiang Weilie** (b.1955) joins VADM Tian Zhong as a strong contender for promotion to a higher-grade assignment, including PLA(N) Commander. A surface warfare officer, Jiang has served in all three fleets, including Commander of the South Sea Fleet. Like Tian, Jiang was selected to the CCP Central Committee at the CCP's 18th Party Congress in 2012. The two former fleet commanders also led separate, extended-area surface deployments in early 2013. During Jiang's April 2013 deployment to the western Pacific, he was quoted in PLA media as saying that the PLA(N) will begin to normalize open-sea training in areas farther from China. During his brief time as Director of the PLA(N) Armament Department, Jiang oversaw reforms to the PLA(N)'s weapons acquisition system, reportedly a key objective set forth by the CMC. Jiang is eligible to remain in position until 2018, but he is likely to promote to a higher grade.



**VADM Liu Yi** (b.1955) has often been characterized by "first" and "youngest," while serving in positions of distinction in the PLA(N)'s submarine force. After reportedly joining the PLA(N) at age 14, Liu became commanding officer (CO) of a conventional submarine by age 26 and CO of an SSN by age 38. As a PLA(N) Deputy Chief of Staff, Liu commanded a midshipman training cruise to Japan and Republic of Korea in October 2009. He was promoted to his current assignment of PLA(N) Deputy Commander in July 2011. Liu is eligible to remain in this position through 2018.



**VADM Ding Yi** (b.1959) is the most junior PLA(N) Deputy Commander and the only Deputy Commander with an aviation background. While serving in the East Sea Fleet's Aviation Force, Ding was instrumental in showcasing the PLA(N)'s "Flying Leopard" fighter/bombers during the PLA's military review in Tiananmen Square during the PRC's 50th anniversary celebration. He took command of the North Sea Fleet's Aviation Force in 2010, where he served until his

July 2013 promotion to PLA(N) Deputy Commander. Ding's relative youth means he could remain in this position or a position of similar grade until 2022. He was promoted to Vice Admiral in July 2014.



**VADM Wang Dengping** (b.1952) is one of two PLA(N) Deputy Political Commissars (DPC). He was embarked during the PLA(N)'s first global circumnavigation cruise in 2002, commanded by former PLA(N) Deputy Commander Ding Yiping. Wang is one of the most vocal PLA political work officers in recent memory. While serving as a delegate to the annual National People's Congress, Wang often made strongly worded pronouncements calling for defense of China's sovereignty in disputed territories in the South China Sea. Wang will probably retire in 2015.



**VADM Ding Haichun** (b.1954 or 1955) is a PLA(N) Deputy Political Commissar (DPC) Ding ran the political department at Nanjing Naval Command College before becoming PC of the PLA(N)'s naval support base in Lushun and then PC of the PLA(N) Logistics Department. In late 2011 he was promoted to East Sea Fleet PC, where he remained until transferring to the position of PLA(N) Political Department Director in July 2013. He was once again laterally transferred to his current assignment in late December 2014. Ding is eligible to remain a PLA(N) DPC until 2017 or 2018.



**RADM Qiu Yanpeng** (b.1956) is dual-hatted as PLA(N) Chief of Staff and Director of the PLA(N) Headquarters Department. Qiu rose through the ranks of the PLA(N)'s surface fleet, going on to command the prominent 6th Destroyer Flotilla in the East Sea Fleet. Although the flotilla is not necessarily equipped with the PLA(N)'s most modern surface combatants, prominent leaders including PLA(N) Commander Wu Shengli and former Deputy Commander Ding Yiping also commanded the 6th, suggesting it is an important assignment that augurs well for future promotions. In 2007, Qiu gained valuable international engagement experience while serving as a flotilla commander during the Pakistani-hosted multilateral military exercise AMAN-07. Qiu later became an East Sea Fleet Deputy

Chief of Staff. During that assignment he commanded the PLA(N)'s fourth counterpiracy deployment to the Gulf of Aden. Qiu briefly served as Commander of the North Sea Fleet until he was laterally transferred to his current position in July 2014. He is eligible to remain at his current grade until 2019.



**RADM Yang Shiguang** (date of birth unknown) is Director of the PLA(N)'s Political Department, which reports to the PLA(N) PC and is responsible for propaganda, security, counterintelligence, and officer management. Yang's prior assignments include Political Commissar of the Naval Aeronautical Engineering Academy and Director of the East Sea Fleet Political Department. His promotion to PLA(N) Political Department Director in late December 2014 was likely due to a shuffle of PLA(N) political work officers triggered by the unexpected death of PLA(N) DPC VADM Ma Faxiang and the retirements of PLA(N) PC ADM Liu Xiaojiang and DPC LTGEN Wang Sentai.



**RADM Xu Weibing** (date of birth unknown) has been Director of the PLA(N) Logistics Department since 2011, when he relieved Lin Yongqing who died of illness. Little is known about RADM Xu other than his prior service as Commander of the PLA(N)'s former naval support base in Shanghai, which likely provided him with a skill set not often used by PLA(N) Logistics Department leaders: hosting and entertaining foreigners.



**RADM Wang Jianguo** (date of birth unknown) is Director of the PLA(N) Armament Department. He has served in the Armament Department since at least 2009, including as the department's senior engineer. In 2009 he co-authored a book of more than 500 pages on the theory of equipment acquisition. In 2012, he accompanied then-PLA(N) Deputy Commander VADM Zhang Yongyi on a delegation to the United States.

## Fleet Leaders

The commanders and political commissars of the PLA(N)'s three fleets direct the PLA(N)'s day-to-day operations. They are also strong contenders for promotion to higher



grade assignments in the four general departments or the NPSC. All three fleet commanders are dual-hatted as deputy commanders of their parent MR. Most, if not all three, fleet political commissars are concurrently deputy PC of the respective MR. (The North Sea Fleet belongs to Jinan MR, East Sea Fleet to Nanjing MR, and the South Sea Fleet to Guangzhou MR).



North Sea Fleet (NSF) Commander **RADM Yuan Yubai** (b.1956) is a nuclear submariner who appears to have spent his entire career in the North. After studying at the Qingdao Submarine Academy, he likely commanded HAN-class submarines, allegedly spending more than three months on patrol at one early point in his career. In 2007 he was appointed Commander of the PLA(N)'s 1st Submarine Base, where he remained until he was appointed North Sea Fleet Chief of Staff in 2010. In 2013, Yuan led China's 14th counterpiracy task group to the Gulf of Aden. He was promoted to NSF Commander in July 2014.



North Sea Fleet Political Commissar **VADM Bai Wenqi** (b.1956) previously served in North Sea Fleet Aviation with current PLA(N) Deputy Commander Ding Yi. He has served in political work tracks in the South Sea Fleet as well. Per convention, VADM Bai should be Secretary of the North Sea Fleet Party Committee. Bai is eligible to remain in this assignment until 2019.



East Sea Fleet Commander **VADM Su Zhiqian** (b.1955) joins PLA(N) Deputy Commander Su Shiliang as one of the few—and perhaps the only—PLA(N) officers to have commanded two fleets. VADM Su previously commanded the South Sea Fleet. While serving in surface warfare assignments, Su studied in Russia, suggesting he may possess some Russian language skills. In 2007, he commanded a PLA(N) task group deployment to Russia, the United Kingdom, France and Spain. As a fleet commander, Su is a contender for assignments in Beijing, but likely faces tough competition from the other two fleet commanders who were selected to the CPC Central Committee at the 18th Party Congress in 2012, whereas he was not.



East Sea Fleet Political Commissar **VADM Wang Huayong** (b.1955) is one of the few officers at his level with prior experience in the Marines. In the early 2000s, Wang served as PC of a Marine Brigade, before promoting to assignments in the South Sea Fleet including PC of a destroyer flotilla and Yulin Naval Support Base. Wang was promoted to East Sea Fleet PC in July 2013, where he is eligible to remain until 2018. Wang was promoted to Vice Admiral in July 2014.



South Sea Fleet Commander **RADM Shen Jinlong** (b. 1956) has a strong background in the oversight of naval training and education, going back to his time as Director of a Vessel Training Center in the North Sea Fleet in 2003. After commanding a North Sea Fleet destroyer flotilla for several years, Shen took command of Lushun Naval Support Base. He authored an article on naval operations other than war in 2009 and was then appointed Commandant of the Dalian Naval Academy, where he oversaw the professional military education of midshipmen and junior officers. Shen was later appointed Commandant of the PLA(N)'s most senior educational institution, the Naval Command College in Nanjing. He was promoted to South Sea Fleet Commander in late 2014 after briefly serving as a Deputy Commander. Shen is eligible to serve in this position through 2019.



South Sea Fleet Political Commissar **RADM Liu Mingli** (b. 1956) was promoted to this position in late 2014 after serving as Political Commissar of South Sea Fleet Aviation (and concurrently a Fleet DPC). Little is known of Liu's early career other than his service as PC of the Naval Armament Research Academy and Director of the East Sea Fleet Political Department. While serving as South Sea Fleet PC, he is likely responsible for ensuring that sailors operating in or near disputed waters understand and carry out China's legal and diplomatic claims. Like South Sea Fleet Commander Shen Jinlong, Liu is eligible to remain South Sea Fleet PC through 2019.

# MARITIME CLAIMS—SECURING CHINA’S “BLUE TERRITORY”



Relationships among Asian states have long been plagued by disputes over the sovereignty of various maritime features, associated maritime rights, and overlapping and excessive jurisdictional claims. Since World War II, tensions have oscillated from naval skirmishes and island grabs to protracted periods of calm and stability. The Association of Southeast Asian Nations (ASEAN) and China achieved some progress in assuaging tensions with the 2002 Declaration on the Conduct of Parties in the South China Sea, which effectively halted the seizure of additional maritime features by all claimants. Since 2009, however, friction between China and its neighbors in the South China and East China Seas has grown significantly. China’s leaders appear increasingly willing to pursue China’s maritime interests, even when such actions risk exacerbating tension with China’s neighbors.

In his first publicized policy speech as Chairman of the Communist Party of China, Xi Jinping told China’s Politburo in January 2013 that, “No foreign country should ever nurse hopes that we will bargain over our core national interests.” Beijing likely calculates that an assertive approach to rival claimants will deter challenges to China’s interests. Beijing was frustrated in 2009 when Vietnam and Malaysia jointly submitted an extended continental shelf claim to the Commission on the Limits of the Continental Shelf, that overlapped areas also claimed by China. Beijing also reacted sharply in 2012 when the Japanese Government purchased from private owners several of the islands known in Japan as the Senkakus and in China as the Diaoyu. Also in 2012, the Philippines filed an arbitration case against some of China’s claims in the South China Sea following a standoff at Scarborough Reef that ultimately resulted in China seizing de facto control of the reef. Chinese commentators frequently refer to China’s “three-million-square kilometers of blue territory,” which would incorporate nearly 90 percent of the area within the major bodies of water within the First Island Chain, including the Bo Hai, the Yellow Sea, the East China Sea, and the South

China Sea. To the frustration of international legal experts, Beijing maintains a policy of ambiguity over what specific rights it actually claims in this vast area, with the nature of its Nine-Dash Line in the South China Sea being a prime example. In many instances, China’s efforts to exercise jurisdiction in this “blue territory” are inconsistent with accepted international standards as outlined in the United Nations Convention on the Law of the Sea (UNCLOS).

More than a decade of sustained investment in its Navy and Coast Guard has given the Chinese leadership additional tools to pressure or deter rival claimants. Until recently, China lacked the enforcement capability and situational awareness to effectively exercise a jurisdictional presence throughout these disputed waters. As China has closed these gaps, it has been able to quickly respond to incidents it feels violate its claimed sovereignty in disputed areas. This trend was evidenced in April 2012, when Chinese maritime law enforcement (MLE) ships effectively blocked the Philippine Navy from detaining Chinese fishermen at Scarborough Reef, a feature claimed by both countries. China also responded rapidly with a Coast Guard presence at the Senkaku Islands in September 2012 following the Japanese governments’ aforementioned purchase of several islands.

More recently, China has begun strengthening its position in the Spratly Islands. Throughout 2014, China reclaimed hundreds of acres of land at the seven features that it occupies and appears to be building much larger facilities that could eventually support both MLE and naval operations. Although other countries have upgraded their own outposts in previous years, the sheer scale of China’s activity is unprecedented.

## Basis for Claims

China cites language in UNCLOS and historic rights pre-dating UNCLOS as the foundation for its expansive regional claims. PRC Foreign Minister Yang Jiechi

asserted to then-U.S. Secretary of State Hillary Clinton in 2012 that there is “plenty of historical and jurisprudence evidence” to demonstrate China’s sovereignty over the islands in the South China Sea and adjacent waters. China’s Ministry of Foreign Affairs asserts that the Senkaku Islands in the East China Sea “have been the inherent territory of China since ancient times.”

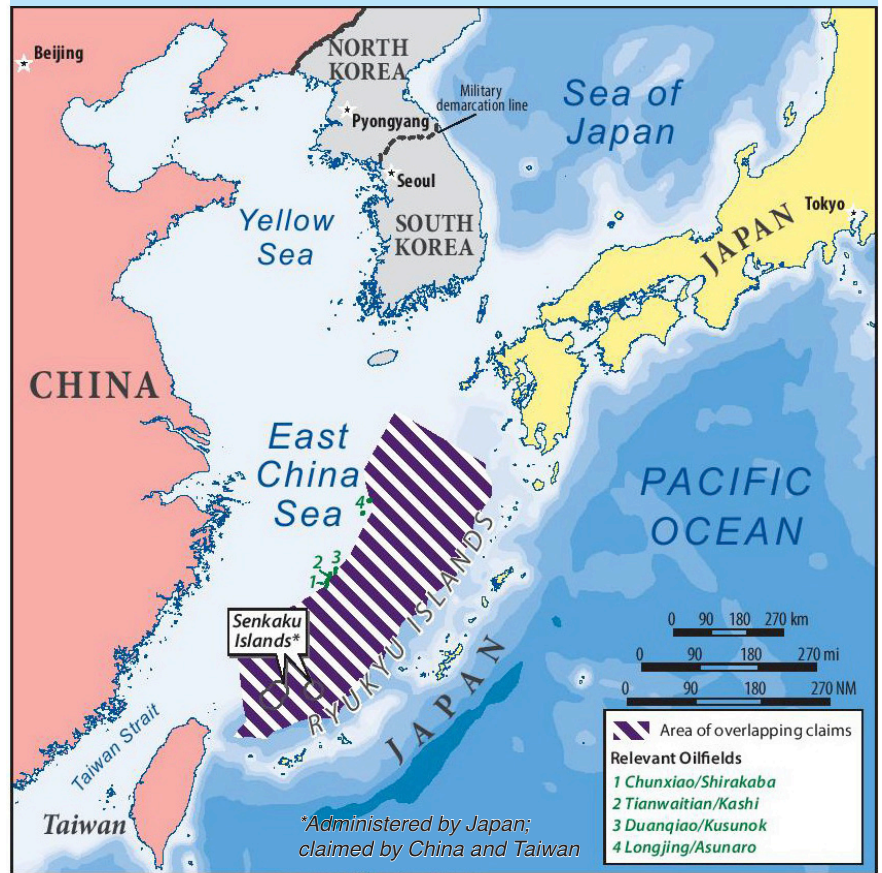
Regional states including Japan, Vietnam, and the Philippines offer differing historical narratives in support of their own respective claims. Controversy over maritime boundaries arises from the geography of the area and its tumultuous history during the latter half of the 19th century and the first half of the 20th century. The Sino-Japanese War, World War II, the Chinese Civil War, and the transition from colonial states to independent countries in Southeast Asia all complicated the establishment of clear maritime boundaries. China’s maritime claims remain the largest, and Beijing has proven reluctant to clearly articulate the basis and limitations of its claims.

## East China Sea

China and Japan face both a resource dispute in the East China Sea and dispute over title to the Senkaku Islands, called the “Diaoyu” Islands in Chinese. On the question of resource rights, China claims that UNCLOS and related legal precedent entitle it to seabed rights throughout most of the East China Sea, based on the prolongation of its continental shelf. Tokyo, also citing UNCLOS, counters that the principle of equidistance should be employed to delineate all resource rights. Although UNCLOS states that international law should be the basis for resolving such conflicts, it does not explicitly indicate which method should be used to resolve this type of dispute. Furthermore, third-party arbitration appears highly unlikely. At stake for both Beijing and Tokyo is the right to exploit oil and gas deposits throughout a large portion of the East China Sea.

China has developed natural gas infrastructure in several areas bordering Japan’s claimed equidistant line. Japan objects to PRC exploitation so close to this line, claiming that China would effectively extract

**Figure 5-1. East China Sea Maritime Claims**



*Names and boundary representation are not necessarily authoritative.*

resources that span the border. In 2008, China and Japan reached an agreement to jointly develop the East China Sea, but that agreement was never implemented and its prospects have grown increasingly bleak as tensions increased over the disputed Senkaku Islands.

The Senkaku Island group consists of just five small, uninhabited islands between 90 and 150 nm east-northeast of Taiwan. The islands are important both as a matter of national pride and identity and because their title could convey associated fishing and mineral rights. While China, Taiwan, and Japan all claim sovereignty of the islands, Japan has maintained administrative control of the islands since the reversion of the Ryukyus to Japanese control in 1972.

The Senkaku dispute dates back to 1895, when both sides agree that Japan took control of the islands. The disagreement arises from the question of their status before Japan’s seizure. Beijing contends that, like

Taiwan and the Penghu Islands, the Senkaku Islands were wrested from a weak Qing government. China contends that under the 1943 Cairo Declaration and 1945 Potsdam Proclamation, the Senkakus, like other territory Japan seized from China, must be relinquished.

Japan rejects the argument that the Senkaku Islands were part of China prior to 1895 and argues they were “terra nullius” (that is, not owned by any country) at the time they were occupied. Thus, the Senkakus would not be subject to the post-World War II requirements to return land to China. The Japanese government does not formally recognize that a dispute over the islands even exists.

For much of the past 40 years, China and Japan have essentially ignored the dispute. Japan maintained Coast Guard patrols of the area, but did not attempt to enforce exclusive fishing rights outside of the immediate 12nm territorial waters around the islands. However, two recent incidents—the 2010 ramming of a Japanese coast guard ship by a Chinese fishing boat and the subsequent detention of its captain and the 2012 purchase of three of the islands by the Japanese government from its private owners—have raised the issue to the forefront of Sino-Japanese relations. China, once content to maintain its claim without actively contesting the Japanese Coast Guard presence at the islands, has begun conducting routine patrols in the area.

## South China Sea

China has long claimed sovereignty over islands in the South China Sea, particularly those in the Spratly and Paracel Island groups. Vietnam also claims the Paracel Islands while Brunei, Malaysia, the Philippines, Taiwan, and Vietnam claim and occupy at least portions of the Spratly Islands. There are also additional bilateral disputes over other features such as Scarborough Reef.

Chinese officials frequently state that China holds “indisputable sovereignty over the islands in the South China Sea and adjacent waters.” Beijing affirmed sovereignty over the Pratas, Spratly, and Paracel Islands, as well as Macclesfield Bank in its 1992 territorial sea law. However, the exact nature and extent of

its claims on those “adjacent waters” remains ambiguous. Chinese maps show a Nine-Dash Line encompassing the vast majority of the South China Sea, but Beijing has never published the coordinates of this line, nor has it declared what rights it purports to enjoy in this area. Despite repeated calls to clarify its claims in the Nine-Dash Line, China has yet to offer a clear, legal rationale of this expansive claim. In December 2014, the U.S. Department of State published an analysis of the Nine-Dash Line, stating that “unless China clarifies that the dashed-line reflects only a claim to islands within that line and any maritime zones that are generated from those land features...its dashed line claim does not accord with the international law of the sea.” U.S. Assistant Secretary of State for East Asian and Pacific Affairs Danny Russel has also expressed particular concern over China’s Nine-Dash Line and stated that the international community “would welcome China to clarify or adjust its Nine-Dash Line claim to bring it in accordance with the international law of the sea.”

Contentious disputes in the South China Sea have occasionally turned violent. China, which occupied the eastern

**Figure 5-2. South China Sea Maritime Claims**



*Names and boundary representation are not necessarily authoritative.*

MULTIMEDIA VIGNETTE AVAILABLE AT ONI.NAVY.MIL

Paracel Islands and objected to Vietnam's presence in the western portion of the island group, successfully ousted Vietnamese from the Paracels in 1974. China and Vietnam again clashed in 1988 at Johnson Reef in the Spratly Islands. During that brief conflict, the PLA(N) sank three Vietnamese supply ships, killing dozens of Vietnamese sailors. Since 1988, South China Sea claimants have refrained from any direct military confrontation, but tensions periodically flare over resource exploration, construction of structures on the disputed reefs, and fishing activity.

The non-binding 2002 "Declaration on the Conduct of Parties in the South China Sea," signed by China and the Association for Southeast Asian Nations (ASEAN) successfully ended the seizure of additional territory, but it has not moved parties towards a permanent understanding.

Tensions began to rise again in 2009 in conjunction with a deadline for the UNCLOS-commissioned Commission on the Limits of the Continental Shelf (CLCS). As various countries made submissions to the commission and passed associated domestic legislation, those with overlapping claims filed counterstatements and public protests. Simultaneously, China's increasing capacity to patrol the South China Sea allowed its MLE ships to be available to quickly respond to various actions it deemed as infringing on its claimed sovereignty or jurisdictional authority.

These incidents included blocking the USNS IMPECCABLE in 2009, severing survey cables of the Vietnamese seismic survey ship BINH MINH 02 in 2011 and 2012, and instituting a long-term presence at Scarborough Reef following the Philippine Navy's attempt to arrest Chinese fishermen for poaching. During the summer of 2014, tensions between China and Vietnam again spiked when China deployed a new deep-water oil rig for exploratory drilling in a disputed area near the Paracel Islands. Although both sides refrained from employing military force, the tense area was awash with dozens of civilian and military ships from both sides, frequently and deliberately colliding with one another and creating the conditions for a rapid escalation.

Over the past year, China has embarked on a large-scale effort to reclaim land at all seven of the features that it occupies. Prior to this project, China occupied only small outposts with a land area of less than five acres, and was the only claimant except Brunei that did not have an

airfield in the archipelago. It has since added hundreds of acres of land, allowing for a large expansion of facilities at its outposts. Once complete, these facilities will enable an even greater Chinese presence in the disputed area.

## **Yellow Sea**

Although not as contentious as the maritime disputes in the East and South China Seas, China also has disputes with North and South Korea in the Yellow Sea, primarily over unresolved Exclusive Economic Zone (EEZ) demarcation. Even though these disputes do not receive the global attention that the East China and South China Seas attract, they occasionally turn violent and create political friction. These disputes have resulted in the loss of life of South Korean Coast Guard personnel and Chinese fishermen.

## **Rights in the Exclusive Economic Zone**

While China has no maritime territorial disputes with the United States, Beijing is consistently critical of U.S. activities in and above China's EEZ. China and a small number of other states seek to prohibit at least some military activities in their EEZ. Beijing is particularly critical of U.S. military surveys and reconnaissance activities. Beijing argues that such activities adversely impact Chinese security and effectively require China's consent. The United States maintains that militaries enjoy high seas freedoms in an EEZ, with the exception of a small set of explicitly prohibited activities.

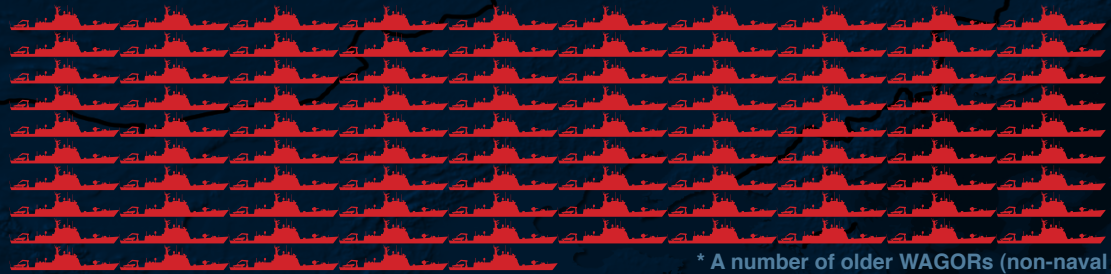
This point of contention is the basis for Chinese monitoring and occasional harassment of U.S. reconnaissance activities near China. These tense interactions have occasionally resulted in high-profile incidents, such as the 2001 collision between an EP-3 and a Chinese fighter and the 2009 harassment of the USNS IMPECCABLE. China cites U.S. reconnaissance in its EEZ along with arms sales to Taiwan and the restrictions of the 2000 National Defense Authorization Act as "three obstacles" to better cooperation between the two militaries. This position has not inhibited China from beginning its own intelligence collection in the EEZs of other foreign countries in recent years, including inside the undisputed U.S. EEZs surrounding Hawaii and Guam.

## **China Coast Guard in the Lead**

At the 12th National People's Congress in March 2013, China announced that four of the five MLE agencies would be combined to form a new China Coast Guard (CCG)

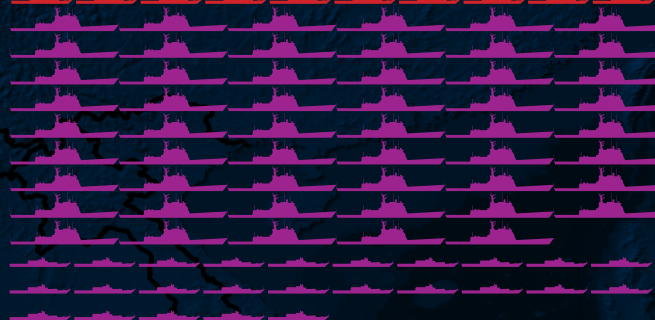
Figure 5-3. Regional Maritime Law Enforcement Comparison

**China**  
 95 X Large  
 110 X Small  
**205**



\* A number of older WAGORs (non-naval oceanographic research ships) used as patrol ships were included

**Japan**  
 53 X Large  
 25 X Small  
**78**



**Indonesia**  
 3 X Large  
 5 X Small



**8**

**Malaysia**  
 2 X Large  
 0 X Small



**2**

**Vietnam**  
 5 X Large  
 50 X Small  
**55**



**Philippines**  
 0 X Large  
 4 X Small



**4**

\*Navy AFT (stores ship) and AF (combat stores ship) vessels are not included

\*This includes WPCs (non-naval patrol craft) and WAITs non-naval intelligence trawler

\*For the purposes of this graphic, Large vessels are greater than 1,000 tons; Small vessels are between 500–1,000 tons.

under administrative control of the State Oceanographic Administration (SOA) and operational control of the Public Security Bureau (PSB). Beijing presumably hopes that the consolidation will alleviate coordination difficulties between the various maritime actors, create efficiencies, and centralize control of maritime issues. The consolidation allows the CCG to more flexibly deploy patrol ships in response to sovereignty challenges and more easily maintain presence

in regional hotspots. When deployed, the CCG sometimes coordinates with the PLA(N), which, when necessary, will deploy destroyers and frigates several dozen miles from the incident to provide a nearby, but indirect presence.

In recent years the PLA(N) has reduced its overt participation in coastal patrols, law enforcement, EEZ enforcement, and territorial claim issues as the CCG assumed these

operations. China prefers using its Coast Guard as the primary enforcer of its maritime claims. This approach limits the potential for confrontational incidents to escalate since most CCG ships are unarmed, and those that are have relatively light weapons. This approach also helps Beijing manage the public optic of any enforcement actions.

Prior to the CCG's establishment, two of the MLE agencies—the State Oceanic Administration's China Marine Surveillance (CMS), and the Bureau of Fisheries Law Enforcement Command (FLEC)—were the entities responsible for enforcing China's rights in its claimed waters. The FLEC managed Chinese fishing and attempted to prevent fishing by other countries in China's claimed waters. CMS was responsible for other economic and environmental enforcement. This included protection of Chinese oil and gas survey ships operating in contested waters and preventing other countries' exploration of similar areas. In 2011, CMS ships severed the cable towing sensors of a survey ship contracted by PetroVietnam. Both CMS and the FLEC, along with the PLA(N), were involved in the 2009 harassment of USNS IMPECCABLE as it conducted operations southeast of Hainan Island.

China's effective use of "white hull" ships as front line forces was demonstrated in a series of incidents in 2012, 2013, and 2014. In April 2012, CMS and FLEC ships responded to an attempt by the Philippine Navy to detain Chinese fishermen that they claimed were illegally harvesting giant clams at Scarborough Reef—a feature claimed by both countries. The ensuing standoff between CMS and the Philippine Coast Guard lasted several weeks. While the Philippines removed its patrol craft in June, China maintains its presence, effectively gaining de facto control of the disputed feature.

The CCG also featured prominently as tensions rose over the Senkaku Islands. Following the Japanese purchase of three of the islands from private owners, China established a regular Coast Guard presence in the vicinity of the islands. This response marked the first time China sustained a presence to directly challenge Japanese administrative control.

In May 2013 China established a persistent Coast Guard presence near Second Thomas Shoal in the eastern Spratly Islands. In 1999, the Philippines intentionally grounded a tank landing ship (LST) there to establish an

outpost after China occupied nearby Mischief Reef in 1995. The Philippine Navy has continuously maintained a detachment of marines on the LST since its 1999 grounding.

During the last decade, China's MLE force has undergone a major modernization, which increased both the sizes of its ships and their overall capability. These civilian maritime forces have added approximately 100 new large patrol ships (WPS), patrol combatants/craft (WPG/WPC), and auxiliary/support ships, not including small harbor and riverine patrol boats.

The current phase of the construction program, which began in 2012, will add over 30 large patrol ships and over 20 patrol combatants to the force by 2015. This will increase by 25 percent the overall CCG force level in a fleet that is also improving rapidly in quality. Most MLE ships are either unarmed or armed only with light deck weapons (12.7mm, 14.5mm, and 30mm guns) and generally use commercial radars and communications equipment. Several of the largest ships are equipped with helicopter landing and hangar facilities as well.

# OUTLOOK



President Xi Jinping continues to emphasize the importance of maritime power to enable China's continued rise. Taiwan reunification remains the main driver for military modernization; however, other requirements such as "new historic missions" are pushing development of mission sets such as military operations other than war (MOOTW) and sea lines of communication (SLOC) protection. These new missions, combined with Beijing's long standing interest in developing a "powerful navy," are together driving the People's Liberation Army Navy (PLA(N)) into new, increasingly distant operating areas. Nontraditional missions and maritime security cooperation provides the PLA(N) with real-world operational experience in new areas and enhances coordination with foreign navies. China's maritime power is an important facet of its national power, expanding from its traditional role of addressing regional security challenges, such as maritime disputes and reunification with Taiwan, to enhancing its strategic deterrence and increasingly protecting Chinese interests abroad.

The PLA(N) has solidified its ability to conduct "offshore defense" and is transitioning to developing a credible capability outside the First Island Chain. China's new strategy will combine its historical interest in "offshore defense" with an added emphasis on "blue-water defense." We see evidence of the shifting strategic focus in the PLA(N)'s rapid retiring of legacy combatants in favor of larger, multimission ships equipped with advanced antiship, antiair, and antisubmarine weapons and sensors.

Highlighting this transition is the fact that every major PLA(N) surface combatant under construction is capable of embarking a helicopter, an addition that supports over the horizon targeting (OTH-T), antisubmarine warfare, and search and rescue. The OTH-T capability of the force is increasingly important as the PLA(N) continues to add advanced, long-range weapons to its arsenal.

As evidenced by recent exercises, the PLA(N) has embraced training under more realistic conditions. We expect that this trend will continue. Furthermore, the Chinese media has recently announced that in 2105, the military will "conduct several large-scale transregional exercises"; this emphasis should help China improve joint operations, a capability consistently identified as an area of concern. The PLA(N)'s commitment and ability to sustain its counterpiracy operations in the Gulf of Aden indicates Beijing's dedication to pursuing diversified military tasks around the world. We expect this trend will continue or even expand as new security challenges provide opportunities for international operations.

China's growing global interest will place pressure on the military to respond to crises where Chinese interests are at risk. Choosing when and how to employ its increasingly capable military will be a challenge for China's current and future leaders. China has used the PLA(N) to assist in the evacuation of citizens from Libya and Yemen, participate in the removal of chemical weapons from Syria, and respond to emergencies

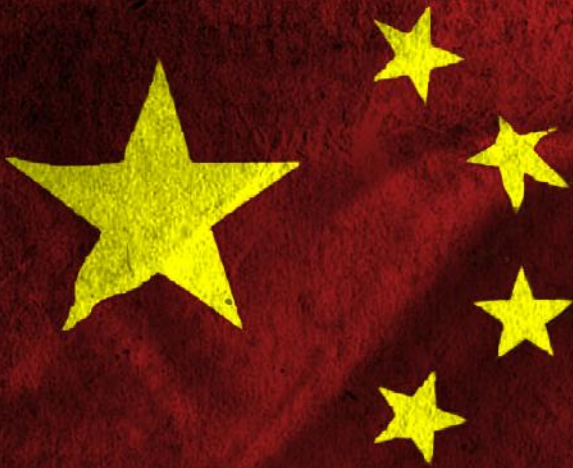
and disasters. All of these operations have been done in cooperation with international bodies and the countries concerned, but they also highlight a gradual loosening of China's historic reticence for sending its military abroad.

Predicting the composition of China's naval force in the next 10–15 years is difficult because of the opaque nature of China's military requirements and acquisition process. Another factor that will play an important part in the PLA(N)'s continued growth and modernization is China's economic health. Despite its slowing economy, China has continued double-digit increases to its defense budget. In March, China announced a military budget of \$141.5 billion, a rise of 10 percent. Should China's economy slow further, leadership could be faced with difficult decisions concerning continued military modernization.

Regardless of these economic pressures, it is evident that the PLA(N) is a navy in transition. We must remember that China is only in the middle of its military modernization, with continued improvements planned over the following decades. As we view the past 20 years of PLA(N) modernization, the results have been impressive, but at its core the force has remained essentially the same—a force built around destroyers, frigates and conventional submarines. As we look ahead to the coming decade, the introduction of aircraft carriers, ballistic missile submarines, and potentially a large-deck amphibious ship will fundamentally alter how the PLA(N) operates and is viewed by the world.







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“WE NEED TO DO MORE TO TAKE INTERESTS IN THE SEA, UNDERSTAND THE SEA, AND STRATEGICALLY MANAGE THE SEA, AND CONTINUALLY DO MORE TO PROMOTE CHINA’S EFFORTS TO BECOME A MARITIME POWER.”

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