



**Review Article**

**CHINA'S NAVAL MODERNIZATION EFFORT; PROTECTING AND EVACUATING CHINESE IN FOREIGN COUNTRIES**

**Mairajul Hamid<sup>1</sup>, Adeel Mahmood<sup>2\*</sup>**

1. Department of Political Sciences, Quaid-I-Azam University, Islamabad, Pakistan
2. Department of Plant Sciences, Quaid-I-Azam University, Islamabad, Pakistan

**History:**

Received: Jan. 13, 2015  
Accepted: Mar. 17, 2015  
Published: Apr. 11, 2015  
Collection year: 2015  
Status: Published

**Identifiers and Pagination:**

Year: 2015  
Volume: 5  
First Page: 1  
Last Page: 8  
Publisher ID: 10.21065/2222-6184.5.1  
DOI:  
<http://dx.doi.org/10.21065/2222-6184.5.1>

**Corresponding author: Adeel Mahmood** Department of Plant Sciences, Quaid-I-Azam University, Islamabad, Pakistan. E.: [adilqau5@gmail.com](mailto:adilqau5@gmail.com)

**Citation:** Mairajul Hamid, Adeel Mahmood. China's naval modernization effort; protecting and evacuating Chinese in foreign countries. Adv Edu Res. Vol. 2; 2015. P 1-8  
<http://dx.doi.org/10.21065/2222-6184.5.1>

**Abstract**

China's naval modernization effort, which began in the 1990s, encompasses a broad array of weapon acquisition programs, including anti-ship ballistic missiles (ASBMs), submarines, and surface ships. China's naval modernization effort also includes reforms and improvements in maintenance and logistics, naval doctrine, personnel quality, education, training, and exercises. Observers believe that the near-term focus of China's military modernization effort has been to develop military options for addressing the situation with Taiwan. Consistent with this goal, observers believe that China wants its military to be capable of acting as a so-called anti-access force—a force that can deter U.S. intervention in a conflict involving Taiwan, or failing that, delay the arrival or reduce the effectiveness of intervening U.S. naval and air forces. Observers believe that China's military modernization effort, including its naval modernization effort, is increasingly oriented toward pursuing additional goals, such as asserting or defending China's territorial claims in the South China Sea and East China Sea; enforcing China's view—a minority view among world nations—that it has the right to regulate foreign military activities in its 200-mile maritime exclusive economic zone (EEZ); protecting China's sea lines of communications; protecting and evacuating Chinese nationals in foreign countries; displacing U.S. influence in the Pacific; and asserting China's status as a major world power.

**Keywords:** China, Naval effects, Foreign policy, Area denial

Corresponding Author: Adeel Mahmood Department of Plant Sciences, Quaid-I-Azam University, Islamabad, Pakistan. E.: [adilqau5@gmail.com](mailto:adilqau5@gmail.com)

**INTRODUCTION**

**China's Naval Effort**

Observers date the beginning of China's naval modernization effort to various points in the 1990s. Design work on the first of China's newer ship classes appears to have begun in the later 1980s. Some observers believe that China's naval modernization effort may have been re enforced or accelerated by a 1996 incident in which the United States deployed two aircraft carrier strikegroups to waters near Taiwan in response to Chinese missile tests and naval exercises near Taiwan.

China's naval modernization effort encompasses a broad array of weapon acquisition programs, including programs for anti-ship ballistic missiles (ASBMs), anti-ship cruise missiles (ASCMs), land-attack cruise missiles (LACMs), surface-to-air missiles, mines,

**Funding:**

The authors received no direct funding for this research.

**Competing Interests:**

The authors declare no competing interests

Additional information is available at the end of the article.

manned aircraft, unmanned aircraft, submarines, aircraft carriers, destroyers, frigates, patrol craft, amphibious ships, mine countermeasures (MCM) ships, hospital ships, and supporting C4ISR systems. Some of these acquisition programs have attracted particular interest and are discussed in further detail below. China's naval modernization effort also includes reforms and improvements in maintenance and logistics, naval doctrine, personnel quality, education, training, and exercises.

**Limitations and Weaknesses**

Although China's naval modernization effort has substantially improved China's naval capabilities in recent years, observers believe China's navy continues to exhibit limitations or weaknesses in several areas, including capabilities for sustained operations by larger formations in distant waters, joint operations with other parts of China's military, anti-submarine warfare (ASW), MCM, a dependence on foreign suppliers for some ship propulsion systems, and a lack of operational experience in combat situations. DOD states that China would face several short-comings in a near-term A2/AD [anti-access/area-denial] operation [against opposing military forces]. First, it has not developed a robust, deep water anti-submarine warfare capability, in contrast to its strong capabilities in the air and surface domains. Second, it is not clear whether China has the capability to collect accurate targeting information and pass it to launch platforms in time for successful strikes in sea areas beyond the first island chain.

However, China is working to overcome these shortcomings. The sufficiency of a country's naval capabilities is best assessed against that navy's intended missions. Although China's navy has limitations and weaknesses, it may nevertheless be sufficient for performing certain missions of interest to Chinese leaders. As China's navy reduces its weaknesses and limitations, it may become sufficient to perform a wider array of potential missions.

**Goals of Naval Modernization Effort**

**Capabilities for Taiwan Scenarios, Including Acting as Anti-Access/Area-Denial (A2/AD) Force)**

DOD and other observers believe that the near-term focus of China's military modernization effort, including its naval modernization effort, has been to develop military options for addressing the situation with Taiwan. Consistent with this goal, observers believe that China wants its military to be capable of acting as a so-called anti-access/area-denial (A2/AD) force—a force that can deter U.S. intervention in a conflict involving Taiwan, or failing that, delay the arrival or reduce the effectiveness of intervening U.S. naval and air forces.

ASBMs, attack submarines, and supporting C4ISR systems are viewed as key elements of China's emerging maritime A2/AD force, though other force elements—such as ASCMs, LACMs (for attacking U.S. air bases and other facilities in the Western Pacific), and mines—are also of significance. China's emerging maritime A2/AD force can be viewed as broadly analogous to the sea-denial force that the Soviet Union developed during the Cold War to deny U.S. use of the sea or counter U.S. forces participating in a NATO-Warsaw Pact conflict. One potential difference between the Soviet sea-denial force and China's emerging maritime A2/AD force is that China's force includes ASBMs capable of hitting moving ships at

sea.

### **Additional Goals Not Directly Related to Taiwan**

DOD and other observers also believe that China's military modernization effort, including its naval modernization effort, is increasingly oriented toward pursuing additional goals not directly related to Taiwan, including the following:

asserting or defending China's territorial claims in the South China Sea (SCS) and East China Sea (ECS)—claims that overlap with those of other countries and, in the case of the South China Sea, are somewhat ambiguous but potentially expansive enough to go well beyond what would normally be supported by international legal norms relating to territorial waters;

enforcing China's view—a minority view among world nations—that it has the legal right to regulate foreign military activities in its 200-mile maritime exclusive economic zone (EEZ); protecting China's sea lines of communications, including those running through the Indian Ocean to the Persian Gulf, on which China relies for much of its energy imports; protecting and evacuating Chinese nationals living and working in foreign countries; displacing U.S. influence in the Pacific; and asserting China's status as a major world power.

The above goals not directly related to Taiwan suggest the following:

China's maritime territorial claims have the potential for acting as a continuing cause of friction or tension in U.S.-Chinese relations.

China's view that it has the legal right to regulate foreign military activities in its EEZ has the potential for acting as an ongoing source of potential incidents between U.S. and Chinese ships and aircraft in international waters and airspace close to China.

In the absence of conflict, China's military forces, including in particular its naval forces, will be used on a day-to-day basis to promote China's political position in the Pacific.

This would create an essentially political (as opposed to combat-related) reason for the United States or other countries to maintain a competitive presence in the region with naval and other forces that are viewed by observers in the Pacific as capable of effectively countering China's forces. Even if a U.S.-Chinese military conflict in the Pacific over Taiwan or some other issue were never to occur, the U.S.-Chinese military balance in the Pacific could nevertheless influence day-to-day choices made by other Pacific countries, including choices on whether to align their policies more closely with China or the United States. In this sense, decisions that Congress and the executive branch make regarding U.S. Navy programs for countering improved Chinese maritime military forces could influence the political evolution of the Pacific, which in turn could affect the ability of the United States to pursue goals relating to various policy issues, both in the Pacific and elsewhere.

DOD states that preparing for potential conflict in the Taiwan Strait appears to remain the principal focus and primary driver of China's military investment. However, as China's interests have grown and as it has gained greater influence in the international system, its military modernization has also become increasingly focused on investments in military capabilities to conduct a wide range of missions beyond its immediate territorial concerns, including counter piracy, peacekeeping, humanitarian assistance/disaster relief, and regional

military operations.

Some of these missions and capabilities can address international security challenges, while others could serve more narrowly-defined PRC interests and objectives, including advancing territorial claims and building influence abroad. Another set of observers states that in addition to domestic security/homeland defense, [China's military and navy] have two major layers:

China has already developed, and continues to develop rapidly, potent high-end navy and "anti-Navy" capabilities. Like their other military counterparts, they are focused almost entirely on contested areas close to home.

It is also developing low-end capabilities. They are relevant primarily for low intensity peacetime missions in areas further afield. These two very different dynamics should not be conflated.

The second area has attracted headlines recently. China is in the process of developing a limited out-of-area operational capability to extend political influence and protect vital economic interests and PRC citizens working abroad in volatile parts of Africa and other regions. In essence, China seeks the bonus of being able to show the flag outside East Asia without the onus of assuming the cost and political liabilities of building a truly global high end naval capability.

But while selected PLA Navy (PLAN) vessels make history by calling on ports in the Black Sea and Mediterranean to include first-ever visits to Israel and Bulgaria, the majority (like the rest of China's armed forces) are focused on areas closer to home— primarily still contested territorial and maritime claims in the Yellow, East China, and South China Seas....

Given Beijing's substantial focus on issues unlikely to be resolved anytime soon, it is hardly surprising that there are no reliable indications at this time that China desires truly global blue water navy akin to that of the U.S. today or which the Soviet Union maintained for some time, albeit at the eventual cost of strategic overextension. China does seek to develop a "blue water" navy in the years to come—but one that is more "regional" than "global" in nature. Chinese strategists term this a "regional [blue-water] defensive and offensive-type" ... navy... we believe Beijing is building a navy to handle a high-intensity conflict close to home where it can be supported by its large fleet of conventionally-powered submarines and shore based missiles and aircraft. Vessels such as China's soon-to-be-commissioned aircraft carrier and Type 071 amphibious assault ships could be helpful in certain limited conflict scenarios against far-less-capable opponents—particularly in the South China Sea. Yet these large but limited capital ships' most likely use will be for handling missions geared toward:

The regional mission of showing the flag in disputed areas and attempting to deter potential adversaries;

Handling non-traditional security missions both in the East Asian/Western Pacific and Indian Ocean regions such as suppression of piracy, protecting/evacuating Chinese citizens stranded abroad by violence, and disaster response; as well as

Making diplomatically-oriented cruises such as the recent visits to Black Sea ports, which are aimed at showing the flag and showing foreign and domestic audiences that China

is becoming a truly global power.

By contrast, there is currently little evidence that China is building a blue water capability to confront a modern navy like the U.S. beyond the PLAN's East/Southeast Asian home-region waters. Beijing is accruing a limited expeditionary capability, but is not preparing to go head-to-head with U.S. carrier battle groups outside of East Asia and the Western Pacific.

There are a number of key indicators of Chinese progress toward building a strong regional navy with limited global operational capabilities... The PLAN is acquiring the hardware it needs to prosecute a major regional naval showdown.

Simultaneously, an increasingly-capable, but still limited number, of vessels can fight pirates; rescue Chinese citizens trapped by violence abroad, and make "show-the-flag" visits around the world. But the PLAN is not set up to confront the U.S. at sea more than 1,000 miles from China. Even if the PLAN surged production of key vessels such as replenishment ships, the resources and steps needed to build a globally-operational navy leave Beijing well over a decade away from achieving such capability in hardware terms alone. Building the more complex human software and operational experience needed to become capable of conducting large-scale, high-end out-of-area deployments could require at least another decade. Meanwhile, however, China's challenges at home and on its contested periphery remain so pressing as to preclude such focus for the foreseeable future.

The bottom line is that China's present naval shipbuilding program aims to replace aging vessels and modernize the fleet, not to scale-up a modern fleet to the size and composition necessary to support and sustain high-end blue water power projection. China is building a two-layered navy with a high-end Near Seas component and a limited, low-end capability beyond, not the monolithic force that some assume.

### **China's View Regarding Right to Regulate Foreign Military Activities in EEZ**

China's view that it has the legal right to regulate foreign military activities in its EEZ appears to be at the heart of multiple incidents between Chinese and U.S. ships and aircraft in international waters and airspace, including incidents in March 2001, September 2002, March 2009, and May 2009 in which Chinese ships and aircraft confronted and harassed the U.S. naval ships Bowditch, Impeccable and Victorious as they were conducting survey and ocean surveillance operations in China's EEZ, and an incident on April 1, 2001, in which a Chinese fighter collided with a U.S.

Navy EP-3 electronic surveillance aircraft flying in international airspace about 65 miles southeast of China's Hainan Island in the South China Sea, forcing the EP-3 to make an emergency landing on Hainan Island. The issue of whether China has the right under UNCLOS to regulate foreign military activities in its EEZ is related to, but ultimately separate from, the issue of maritime territorial disputes in the SCS and ECS. The two issues are related because China can claim EEZs from inhabitable islands over which it has sovereignty, so accepting China's claims to islands in the SCS or ECS could permit China to expand the EEZ zone within which China claims a right to regulate foreign military activities. The EEZ issue is ultimately separate from the territorial disputes issue because even if all the territorial disputes in the SCS and ECS were resolved, and none of China's claims in the SCS and ECS were accepted, China could continue to apply its concept of its EEZ rights to the EEZ that it unequivocally derives from its mainland coast—and it is in this unequivocal

Chinese EEZ that most of the past U.S.-Chinese incidents at sea have occurred.

If China's position on whether coastal states have a right under UNCLOS to regulate the activities of foreign military forces in their EEZs were to gain greater international acceptance under international law, it could substantially affect U.S. naval operations not only in the SCS and ECS, but around the world, which in turn could substantially affect the ability of the United States to use its military forces to defend U.S. interests overseas. Significant portions of the world's oceans are claimable as EEZs, including high-priority U.S. Navy operating areas in the Western Pacific, the Persian Gulf, and the Mediterranean Sea. The legal right of U.S. naval forces to operate freely in EEZ waters is important to their ability to perform many of their missions around the world, because many of those missions are aimed at influencing events ashore, and having to conduct operations from more than 200 miles offshore would reduce the inland reach and responsiveness of ship-based sensors, aircraft, and missiles, and make it more difficult to transport Marines and their equipment from ship to shore. Restrictions on the ability of U.S. naval forces to operate in EEZ waters could potentially require a change in U.S. military strategy or U.S. foreign policy goals.

### **Selected Elements of China's Naval Modernization Effort**

#### **Anti-Ship Ballistic Missiles (ASBMs)**

China for several years has been developing and testing an anti-ship ballistic missile (ASBM), referred to as the DF-21D, that is a theater-range ballistic missile equipped with a maneuverable reentry vehicle (MaRV) designed to hit moving ships at sea. DOD states that China is fielding a limited but growing number of conventionally armed, medium-range Ballistic missiles, including the DF-21D anti-ship ballistic missile (ASBM).

The DF-21D is based on a variant of the DF-21 (CSS-5) medium-range ballistic missile (MRBM) and gives the PLA the capability to attack large ships, including aircraft carriers, in the western Pacific Ocean. The DF-21D has a range exceeding 1,500 km [810 nautical miles] and is armed with a maneuverable warhead. Another observer states that "the DF-21D's warhead apparently uses a combination of radar and optical sensors to find the target and make final guidance updates.... Finally, it uses a high explosive, or a radio frequency or cluster warhead that at a minimum can achieve a mission kill [against the target ship]."

Observers have expressed strong concern about the DF-21D, because such missiles, in combination with broad-area maritime surveillance and targeting systems, would permit China to attack aircraft carriers, other U.S. Navy ships, or ships of allied or partner navies operating in the Western Pacific. The U.S. Navy has not previously faced a threat from highly accurate ballistic missiles capable of hitting moving ships at sea. For this reason, some observers have referred to the DF-21 as a "game-changing" weapon.

Due to their ability to change course, the MaRVs on an ASBM would be more difficult to intercept than non-maneuvering ballistic missile reentry vehicles. Regarding the operational status of the DF-21D, DOD states that China "began deploying [the DF-21D] in 2010. A DOD official has stated that China is "augmenting the over 1,200 conventional short-range ballistic missiles deployed opposite Taiwan with a limited but growing number of conventionally armed, medium-range ballistic missiles, including the DF-21D anti-ship ballistic missile," and

that “there are a number of notable examples of China’s improving military capabilities, including five new stealth and conventional aircraft programs and the initial deployment of a new anti-ship ballistic missile that we believe is designed to target U.S. aircraft carriers.”

A January 23, 2013, press report about a test of the weapon in the Gobi desert in western China stated: The People’s Liberation Army has successfully sunk a US aircraft carrier, according to a satellite photo provided by Google Earth, reports our sister paper Want Daily—though the strike was a war game, the carrier a mock-up platform and the “sinking” occurred on dry land in a remote part of western China.

### **Anti-Ship Cruise Missiles (ASCMs)**

Among the most capable of the new ASCMs that have been acquired by China’s navy are the Russian-made SS-N-22 Sunburn (carried by China’s four Russian-made Sovremenny-class destroyers) and the Russian-made SS-N-27 Sizzler (carried by 8 of China’s 12 Russian-made Kilo-class submarines). China’s large inventory of ASCMs also includes several indigenous designs. DOD states that China “has, or is acquiring, nearly a dozen ASCM variants, ranging from the 1950s-era CSS-N-2 to the modern Russian-made SS-N-22 and SS-N-27B. China is working to develop a domestically-built supersonic cruise missile capability. The pace of ASCM research, development, and production has accelerated over the past decade.”

### **References:**

- Operations in the Western Pacific and Beyond, Project 2049 Institute, September 14, 2009. 123 pp. 29. 2013 DOD CMSD, p. 38. Page 42 states:
- Another DOD report published in 2013 states that “China has likely started to deploy the DF-21D....” (National Air and Space Intelligence Center, Ballistic & Cruise Missile Threat, Wright-Patterson Air Force Base, OH, 2013, p. 14.30 Michael T Flynn, Lieutenant General, U.S. Army, Director, Defense Intelligence Agency, Annual Threat Assessment, Statement Before the Senate Armed Services Committee, United States Senate, April 18, 2013, p. 17. statements of Admiral Samuel J. Locklear, U.S. Navy, Commander, U.S. Pacific Command, Before the Senate Armed Services Committee on U.S. Pacific Command Posture, April 9, 2013, p. 7. See also Andrew S. Erickson, “How China Got There First: Unique Path to ASBM Development and Deployment,” China Brief, June 7, 2013.
- “PLA ‘Sinks’ US Carrier in DF-21D Missile Test in Gobi,” Want China Times (<http://www.wantchinatimes.com>), January 23, 2013, accessed March 21, 2013, at <http://www.wantchinatimes.com/newssubclass-cnt.aspx?id=2013> DOD CMSD, p. 42.
- Depending on their ranges, these theater-range ballistic missiles can be divided into short-, medium-, and intermediate-range ballistic missiles (SRBMs, MRBMs, and IRBMs, respectively). 2013 DOD CMSD, p. 5. See also 2009 ONI Report, pp. 26-27.
- Richard Fisher, Jr., “PLA and U.S. Arms Racing in the Western Pacific,” available online at [http://www.strategycenter.net/research/pubID.247/pub\\_detail.asp](http://www.strategycenter.net/research/pubID.247/pub_detail.asp). A mission kill means that the ship is damaged enough that it cannot perform its intended mission.

Andrew Erickson and Gabe Collins, "China's Real Blue Water Navy," The Diplomat (<http://thediplomat.com>), August 30, 2012, accessed online on October 12, 2012, at <http://thediplomat.com/2012/08/30/chinas-not-so-scary-navy/>. The bracketed phrase "[blue-water]" is as in the original. Another observer states:

