China: A Threat Assessment Through the Lens of Strategic Missiles

Connor Forman
Peace, War and Defense Program
University of North Carolina at Chapel Hill
Chapel Hill, NC 27514
cnforman@gmail.com

Abstract

China since the early 1990s has engaged in a comprehensive force modernization effort across the People’s Liberation Army (PLA). The Second Artillery Corps, which is responsible for much of China’s strategic missile force, has made quantitative and qualitative strides in the last decade that greatly improve the PRC’s strategic missile capabilities. These advances include improvements in the range, accuracy, and survivability of all classes of the PLA’s previous ballistic and cruise missile force, as well as the advancement of new capabilities, such as the anti-ship ballistic missile (ASBM). In order to derive Beijing’s intentions, this paper discusses these capabilities in the context of China’s grand strategy to maintain a security environment conducive to economic growth, select military doctrine and strategies - force modernization, informationization, and active defense, and more specific missile-centric strategies of limited nuclear deterrence, no-first use, and anti-access / area-denial. Given China’s capabilities and intentions with respect to its strategic missile force through 2020, the PRC poses a threat to regional actors through its use of increasingly credible coercion to resolve disputes in its favor, but does not pose a direct threat to the U.S. or its direct interests because a potential conflict would be too costly to China’s development goals. Beyond 2020, the most pressing threat to the United States and its interests remains the longstanding potential for a military engagement involving Taiwan that would draw in the U.S. China’s anti-access capabilities potentially would pose too great a threat to the United States Navy in the region, and may actually enable Beijing to fight and win a conflict in which the United States is denied from entering the area. Policy prescriptions mitigating the long term threat posed by China include increased intelligence collection and production with respect to emerging Chinese capabilities, assistance to regional actors, diplomatic discouragement of provocative action from Taiwan, and finally, the development of direct countermeasures against China’s anti-access and area-denial technologies.

Introduction

China since the early 1990s has engaged in a sustained force modernization effort in which military spending has increased by double digit percentages nearly every year for the last
20 years, putting current estimated military expenditures at 20 times the 1989 levels.\(^1\) The modernization has taken place on three fronts: organizationally, operationally, and technologically with a strong focus on expanding China’s strategic capabilities.\(^2\)

The majority of China’s hard-kill strategic capabilities are controlled by the Second Artillery Corps, which is responsible for China’s land-based nuclear force and most of China’s conventional theater missiles.\(^3\) Additionally, the PLA Ground Forces control a small portion of China’s short range ballistic missile (SRBM) forces and the PLAN controls China’s naval-based strategic missiles.\(^4\) The Central Military Commission (CMC) exercises strict control over all aspects of China’s strategic missiles forces.\(^5\)

This paper will provide implications of China’s evolving strategic missile force in a regional context and with respect to the United States. First, China’s current strategic missile capabilities will be presented. Then, China’s grand strategy, overall military strategy, and specific missile-centric strategies will be discussed in order to create the current threat analysis which combines China’s strategic missile capabilities with their strategic intentions. Based on trends in Chinese capabilities and strategic intentions, a future threat projection will then be provided. Finally, this paper will offer U.S. policy prescriptions that address the implications of China’s missile force modernization.

It is important to note that all of the information in this paper comes from open sources, and thus it may not reflect the complete nature of China’s strategic forces. Additionally, many of the numbers presented are estimates due to the lack of transparency in China’s military and expenditures. These numbers are also outdated by at least one year, since 2010 unclassified reports on China’s military force have been delayed.

**Capabilities**

Beijing has made significant advances in strategic capabilities in recent years as a central focus of China’s comprehensive force modernization effort. Several strategic capabilities have undergone expanded research, development, and production, including reconnaissance, navigation, space-based programs, and information warfare.\(^6\) However, many operational, strategic advances have occurred with respect to strategic missiles. These advancements include the modernization of several classes of ballistic, conventional, and cruise missiles, as well as the mobility, precision, and survivability of such delivery systems and their associated warheads.\(^7\)

---


\(^2\) *National Geographic Atlas of China.* 70 - 71


\(^5\) "Chinese Strategic Missile Force - SinoDefence.com."


China: A Threat Assessment Through the Lens of Strategic Missiles

China has the most active land-based ballistic and cruise missile programs in the world.\(^8\) Beijing possesses nuclear-capable intercontinental ballistic missiles (ICBMs), nuclear-capable medium range ballistic missiles (MRBMs), nuclear-capable submarine launched ballistic missiles (SLBMs), conventional short range ballistic missiles (SRBMs), and several increasingly accurate cruise missiles. The development of China’s first antiship ballistic missile (ASBM) has also brought much attention to Beijing’s missile force in recent months, which once operational, will provide Beijing with the capability to target naval vessels in the western Pacific, including U.S. aircraft carriers, with its 1,500+km range and a maneuverable warhead.\(^9\)

The greatest quantitative advancement in China’s missile force in recent years has been the massive build up of SRBMs, of which China has over 1000 operationally deployed in the military region across from Taiwan.\(^10\) With respect to MRBMs, China has between 75 and 100 operational missiles, including at least 60 of the newer CSS-5 missiles, which are road mobile and solid fueled, adding a substantial regional deterrent.\(^11\) China possesses ten each of its newest ICBMS, DF-31 and DF-31A, deployed in 2006 and 2007 respectively, threatening any location in the continental United States with the 11,200+km range of the DF-31A.\(^12\) In addition to land-based ballistic missiles, Beijing possesses the newly operational JL-2 submarine launched ballistic missile as well as between 150 and 300 DH-10 land attack cruise missiles (LACMs) and more than 120 YJ-62 and YJ-62C anti-ship cruise missiles (ASCMs).\(^13\) The survivability of the whole of China’s strategic missile force has made significant strides in the last decade. China is shifting from a largely vulnerable, minimal strategic deterrent based on liquid-fueled ICBMs fired from fixed locations to a more survivable and flexible nuclear force.\(^14\) This can be seen by the introduction of regional solid-propellant missiles, such as the CSS-5, and the current focus on the extended deterrent DF-31 and DF-31A ICBMs which are both road mobile, solid-propellant systems.

**Intentions**

In order to understand China’s intentions for their modernizing capabilities, a broad look at China’s foreign policy and overall military strategy must be assessed before looking at specific missile-centric strategies, which are simply one means to China’s overall strategic intent. Thus, this section will present general doctrinal considerations and China’s grand strategy before addressing broad military strategy and China’s missile strategies. The impact of the recent force modernization efforts will then be incorporated and China’s current strategy towards Taiwan and within in a broader regional context will be presented.

---

\(^14\) "Military Power of the People's Republic of China 2009." VII.
China’s foreign policy is caught between two seemingly opposing forces which seem to dilute the nature of specific strategic objectives. On one hand, China seems to be following the doctrine of Deng Xiaoping from the early 1990s to observe calmly; secure our position; cope with affairs calmly; have our capacities and bide our time; be good at maintaining a low profile; and never claim leadership. This clearly indicates a preference for noninterference and even deception which China’s leaders have followed for most of the last two decades. On the other hand, recent Chinese leaders, particularly the current PRC president, Hu Jiaqiao, have pushed more open Chinese roles in international diplomacy, the international economy, and the international security arena as China takes a more active and visible role. The tension between these two opposing concepts of concealment and noninterference versus interconnectedness and increasing global leadership, in addition to the lack of transparency and clarity of specific policy and military strategies, make it very difficult to derive China’s true intentions with respect to strategic objectives.

PRC Grand Strategy is centered almost entirely on economic development and maintaining a security environment which is conducive to further economic growth. Such a security environment, dictated by the PLA, is derived by China’s advancement of hard (military) power and capabilities as a tool to enhance its soft power (economic and cultural influences). Together, these two forms of power create what China refers to as comprehensive national power (CNP) and the basis of Chinese grand strategy.

As China’s economy grows, dependence on secure access to markets and natural resources has become an increasingly important factor shaping China’s strategic behavior. These resources include metals and fossil fuels, particularly coal, which is China’s primary fuel source, and an increasing reliance on oil as the transportation section grows. The rising demand for oil led China to become the world’s second largest importer of crude oil, surpassing Japan in May, 2008. Close to 50% of China’s oil imports come from the Middle East where they have been establishing long-term contracts.

Looking forward, the CCP has announced that through 2020, grand strategy should focus on managing or exploiting external tensions, especially with great powers, to maintain an environment conducive to China’s growth. While broad, this statement suggests the intent for grand strategy to remain focused on economic growth via access to resources for at least another decade. A further statement from a former State Councilor and Minister of Foreign Affairs, Tang Jiaxuan, indicates that China recognizes its rising global position but wants to avoid major international attention or conflict through at least 2020. Thus, China’s grand strategy through 2020 forms an important basis for more specific military objectives.

As previously stated, Beijing is pursuing a comprehensive force modernization effort over the course of the first half of the 21st century. The effort involves a 3-step strategy to create

---

a "solid foundation" by 2010, reach another phase of "major progress" by 2020, and be "capable of winning informatized wars by the mid 21st century. More specifically, China is seeking to implement broad transformations that encompass force-wide professionalization, training modernization, advancements in joint exercises and capabilities, and "accelerated acquisition and development of modern conventional and nuclear weapons. Despite the ambiguous nature of these strategic objectives, China has already made considerable progress in their modernization efforts.

Another current PLA force-wide doctrine is that of "active defense." This refers to a "defensive" military strategy in which China does not initiate wars or fight wars of aggression, but engages in war only to defend national sovereignty and territorial integrity. Once conflict has begun, according to the 2000 PLA Science of Campaigns, "the essence of active defense is to take the initiative and to annihilate the enemy." This diluted logic can be used to justify a military offensive in order to contribute to strategic defense.

The goal of China's force-wide doctrines is to transform the PLA from a "mass army designed for protracted wars of attrition on its territory to one capable of fighting and winning short-duration, high-intensity conflicts along its periphery against high-tech adversaries." In 2004, the PLA formally institutionalized this strategic direction as fighting "local wars under conditions of informatization." In this context, informatization emphasizes the effects of modern information technology on military doctrine and capabilities. The goal of much of China's acquisition of advanced weaponry, including strategic missiles, is to achieve the ability of informatization-based warfighting.

Within these broader grand strategy and military doctrines, China has developed specific missile-centric policies. These include limited nuclear deterrence and no first-use policies with respect to nuclear weapons and an evolving anti-access doctrine.

China has shifted from a strategy of minimal nuclear deterrence to one of limited nuclear deterrence. This encompasses maintaining enough nuclear weapons of sufficient power to produce a credible nuclear deterrent to discourage the use of nuclear weapons by potential aggressors. In order to achieve the status of a credible deterrent, the nuclear weapons must provide a second strike capability, which has recently been achieved through the advancements in survivability previously discussed. Thus, China's current limited strategy offers credible deterrence but does not emphasize the ability or intent to pose a credible offensive threat against another nuclear armed nation.

China officially supports a "no first use" policy with respect to nuclear weapons. There appears to be a wide range of support for this policy within the CCP and PLA. However, some opponents within the PRC civilian and military communities suggest that such a policy detracts

---

24 Hsiao, Russell.
from China’s nuclear deterrent. It also remains unclear whether a conventional strike on China’s strategic forces would nullify ‘no first use.’ Additionally, there are indications that China does not consider an atmospheric detonation of a nuclear device a violation of the policy. Thus, while China has clearly indicated that its nuclear strategy is purely defensive, the ambiguity of specific nuclear policies provides the possibility for China’s nuclear assets to be used for coercive or aggressive purposes.

China’s growing strategic missile force contributes to a trend towards an anti-access strategy. An anti-access measure is considered to be any action by an opponent that has the effect of slowing the deployment of friendly forces into a theater, preventing them from operating from certain locations within that theater, or causing them to operate from distances farther from the locus of conflict than they would normally prefer. Such a strategy by China pertains to U.S. forces that would seek to respond to a potential regional conflict, particularly over Taiwan (Taiwan discussed below). Such a strategy is enabled by the recent progress in strategic capabilities, specifically the advancement of ASCMs and ASBMs which could target U.S. Navy in the region and LACMs and MRBMs which provide the ability to deter or destroy the use of regional U.S. military bases. Thus, a Chinese anti-access strategy would maximize China’s relative strengths in order to exploit the weaknesses of the U.S. response to such an action.

Beijing’s objective of unifying Taiwan with the mainland has remained unchanged, and many of China’s military and strategic missile doctrines are influenced by the longstanding conflict. One of China’s most prominent, current military objectives is to deter the de jure independence of Taiwan, and China has acknowledged a willingness to use force to accomplish this. To this effect, the force modernization and particularly the buildup of over 1000 SRBMs opposite Taiwan pose a significant deterrent to Taiwanese efforts towards de jure independence since Taiwan no longer enjoys the strategic advantage. In combination with this missile-centric strategy towards Taiwan, the aforementioned anti-access strategy would then prevent U.S. intervention in such a conflict. This growing strategic advantage with respect to the Taiwan issue allows for significant coercive ability.

**Current Threat Analysis**

Given the current state of PLA strategic missile capabilities and associated military doctrine, China is a threat to regional actors, but does not currently pose a direct threat to the United States, its interests, or its position of power. China appears to possess a reasonable

27 Cliff, Roger. Summary.
expectation of their force modernization, which is evident by their 3-step objectives calling for only a "solid foundation" by 2010. Thus, despite a rapidly growing capacity, China does not seem to overestimate their current strategic missile capabilities which are still vastly inferior to those of the United States. Although China possesses the ability to harm U.S. interests in the region, including military bases, U.S. Navy in the region, and economic assets, it could not do so without a significant risk to resource flows and economic interests via U.S. retaliation. Such a risk contradicts China's grand strategy of economic development and its defined strategic intent to continue to avoid international attention and unnecessary conflict through at least 2020. Thus, China currently poses a minimal threat to the United States and its direct interests.

However, China does view its strategic missile forces as a means of achieving regional coercion for the purpose of resolving territorial disputes in China's favor and contributing to PRC economic development via unrestricted access to resources. China's increased strategic missile capabilities allow Beijing to use the threat of force in order to coerce regional disputes over territory or resources in China's favor. With the recent developments in precision short to mid-range cruise and ballistic missiles, China possesses the necessary capabilities to credibly enforce its threats. Thus, China poses a threat to several regional actors with territorial, maritime, and resource disputes that China will attempt to exploit via its rising regional power status.

China poses a growing threat to Taiwan given the same coercive logic with the addition of long-standing malice and a strong military buildup in the military region across from Taiwan. However, without a current anti-access capability sufficient enough to completely deter U.S. intervention in a conflict over Taiwan, the present security environment would pose too great a risk to China's development if the U.S. became militarily involved. Thus, it is likely that China will continue to improve its anti-access capabilities before potentially attempting a military engagement with Taiwan as long as the status quo remains in place between China and Taiwan.

Future Threat Projection

Current trends in Chinese technological advancements in strategic missiles are likely to continue throughout the remainder of the force modernization effort. This includes both quantitative and qualitative increases in precision cruise and ballistic missiles, as well as increased survivability of those forces. Continued development of SRBMs, ASBMs, and ASCMs are likely to be the focus of China's efforts moving forward due to their capacity to serve regional strategic objectives discussed above, including regional coercion in combination with anti-access to ensure access to resources and deter U.S. intervention in territorial and Taiwan disputes.

Given China's nuclear strategy of limited deterrence, it is unlikely that a Cold War type arms race will emerge between the United States and China because China is more concerned

with regional control and economic dominance which is better served by precision short and medium range technologies. Thus, the PRC is unlikely to amass significant amounts of nuclear warheads or ICBMs. Rather, while improving short and medium range technologies, China is likely to continue to improve the survivability of its strategic missile force in order to maintain a credible limited deterrence with respect to its longer range ballistic missiles and protect its shorter range regional deterrence missiles.

Additionally, China is likely to continue research and development of sea and space based missile technologies. Beijing already has early SLBM capabilities, and it is likely to continue to pursue SLBM development to create a greater extended deterrent. China’s space program, which is run by the PLA, is viewed as an instrument of power and allows satellite guidance capabilities to enhance precision guided weapons. China is likely to push development of these high-tech warfighting methods in order to reach its goal of being able to win informatized conflicts against a high tech adversary by 2050.

Given these projections of Chinese capabilities, Beijing will be afforded significantly greater coercive ability which can enable the advancements of Chinese military and grand strategies. However, it is clear that Beijing intends the period until 2020 to be a period of internal growth of economic, military, and cultural influence while avoiding unnecessary external attention. Thus, China will likely continue to amass strategic capabilities and use the threat of force as credible rhetoric against regional powers to advance economic and territorial interests and particularly access to resources as it attempts to avoid major power intervention. Therefore, a significant regional threat exists as China’s capabilities expand through and beyond 2020, enabling coercive bargaining backed by the threat of increasingly precise and destructive cruise and ballistic missiles.

Perhaps the greatest threat of actual military action from China through the next two decades is in the context of Taiwan, which has the potential to bring the United States into the conflict. The strategic capacity to win a conflict over Taiwan is already in place and will continue to increase in superiority over Taiwan’s capabilities. This, in combination with China’s diluted military doctrine which could likely rationalize such an "active defense" campaign against Taiwan, and with China’s growing anti-access capability to restrict U.S. intervention in a military campaign, could lead China to believe it could fight and win a war against Taiwan in the coming decades. As China would seek to limit U.S. involvement in such a conflict, it would likely employ its nearly sufficient anti-access strategy to attack U.S. military bases in the region via precision cruise missiles while limiting the mobility and entrance of the U.S. Navy in the region with ASBMs and ASCMs. In this sense, the United States could actually be defeated by China in a conflict over Taiwan, not in the sense that the U.S. military would be destroyed, but in the sense that China would accomplish its military and political objectives while preventing the United States from accomplishing its own.34

34 Cliff, Roger. 111–113.
Policy Prescriptions

Several United States policy options are available to counter the present and emerging threats from an increasingly capable China. Perhaps the foremost policy prescription is to increase intelligence collection, analysis, and production on China. The PRC’s advancing strategic missile technology, survivability, and associated doctrine and military spending lack transparency. Thus, it is essential that the United States is able to produce accurate intelligence on emerging Chinese strategic missile advancements. This includes an increased human intelligence presence in China, increased signals and image intelligence, and an increased emphasis on intelligence analysis and production in the United States intelligence community.

With respect to offering regional assistance, specifically in the case of the current and projected threat against Taiwan, the United States should strongly discourage Taiwan’s pursuit of de jure independence. The ROC already enjoys de facto independence, and China has clearly stated its intent, backed by sufficient SRBM capabilities, to prevent an attempt at de jure independence. Such an action from Taiwan would provoke China into possibly engaging in military action, including the use of the 1000+ SRBMs directly across the Taiwan Strait. Additionally, the United States should continue to provide Taiwan and other regional allies with advanced missile defense and early warning systems to help deter any aggression from China and help mitigate the asymmetric advancement of Chinese strategic forces.

Should a regional conflict arise which necessitates United States intervention, policies must already be enacted which counter potential anti-access threats. These include diversity of basing options for aircraft in the region, improved advanced ship-based and land-based cruise and ballistic missile defense, antisubmarine defenses, and improved early warning systems. Employing such systems before a potential conflict erupts would help to deter any action from being taken against U.S. military assets and interests in the region.

Conclusion

This paper presented the modernizing, increasingly accurate and survivable strategic missile capabilities of China, the evolving military doctrine and nuclear strategies in the context of China’s grand strategy of economic development, current and future threat assessments, and finally, policy prescriptions to counter those threats. The conclusion is that Beijing will take advantage of China’s growing strategic arsenal to coerce regional territorial and resource disputes in Beijing’s favor. This will be accomplished while remaining relatively withdrawn from major international conflict through 2020 in order to reach economic and military goals without major power intervention. China’s improving strategic missile technology in combination with its long-standing dispute with Taiwan and its emerging anti-access capabilities

36 Cliff, Roger. 95–109.
37 Cliff, Roger. 95–109.
provide the possibility of a military engagement with Taiwan within the next 20 years. Such a conflict would engage the United States, necessitating China’s use of ASBM’s and ASCM’s as well as precision LACM’s to pose a credible threat to U.S. military intervention in the region. In order to counter this threat, U.S. policy options offering specific anti-access counters and regional counters were provided in addition to the necessity of increased U.S. intelligence efforts and a strong discouragement of Taiwanese de jure independence.

While this paper assessed the capabilities, intentions, and associated threats and implications of China’s military through the lens of Chinese strategic missiles, it is important to note that strategic missiles are only one component of the comprehensive PLA modernization which is contributing to China’s rise as a military, political, and economic power. Thus, as China increases its capabilities and modernizes its doctrine to fight wars under “conditions of informatization” through the first half of the 21st century, it is essential that the United States also take this time to develop countermeasures and fortify its deterrence measures to emerging and potential Chinese threats. This will enable China’s rise to contribute to the global economy and international political system while discouraging military action by making any potential engagement too costly to China’s development goals, which continues to be the driving force behind Chinese grand and military strategy through the 21st century.
References


Much of the research on China’s capabilities came from *Military Power of the People’s Republic of China 2009* because it provides the most recent and accurate statistics relating to Chinese strategic missiles and a comprehensive look at Chinese military power. The other sources provided background information and elaborated on specific aspects of China’s military strategy which were overviewed in *Military Power of the People’s Republic of China 2009*. 