NAVAL WAR COLLEGE
Newport, RI

Chinese Military Modernization:
Transitioning from People’s War to Limited War

by

Charlette Watkins
National Imagery and Mapping Agency

A paper submitted to the Faculty of the Naval War College in partial fulfillment of the requirements of the Department of Joint Military Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the National Imagery and Mapping Agency.

Signature: Charlette Watkins

17 May 1999

DISTRIBUTION STATEMENT A
Approved for Public Release
Distribution Unlimited

Professor D. Chandler, Captain D. K. Grant
Joint Military Operations

19991122 150

DTIC QUALITY INSPECTED 4
13. Supplementary Notation: A paper submitted to the Faculty of the NWC in partial satisfaction of the requirements of the JMO Department. The contents of this paper reflect my own personal views and are not necessarily endorsed by the NWC or the Department of the Navy.

14. Ten key words that relate to your paper:
People's Republic of China, Chinese Military Modernization, People's Liberation Army, people's war, limited war, leadership, doctrine, forces, nuclear, command and control

15. Abstract: The People's Liberation Army (PLA), the collective term for the People's Republic of China's (PRC's) armed, air, naval and strategic rocket forces, is making significant strides toward modernizing its conventional armed forces and creating a credible power projection capability. There have been gradual improvements in the PLA as a result of dramatic shifts in leadership and growing professionalism of the PLA, changes in operational doctrine and concepts, reduction and restructuring of forces and military regions, and improvement efforts aimed at command and control.

With the virtual removal of the threat of invasion on the Sino-Soviet border after the collapse of the Soviet Union, and the belief that the near term will hold no major and/or nuclear wars, China feels it can afford to pursue a slow, but steady, pace of improvements in the PLA. It is China's hope that by the middle of the 21st century the PRC's defense capabilities will be nearer to advanced world standards. To achieve this, it hopes to develop a distinctly "Chinese-style" doctrine expected to match the U.S. "Air Land Battle" despite the United State's superior technology.

If Beijing continues to enjoy economic success, it will be translated into improvements in the military sphere and, short of major political and economic reversals, the Chinese will play an increasingly significant role in the interplay of regional and international politics. Although it is believed China has limited potential to become a peer competitor of the United States within the next couple of decades, its relative power in Asia and globally will grow sharply during this period. Already it has developed a modest power projection capability and is intent upon expanding it. Success even if only partial, in pursuing advanced military technology and organizing concepts could enhance the speed and impact of China's rise in power.

While it is true China's military modernization efforts face many obstacles, the PLA's future potential bears watching. It is not difficult to contemplate China becoming a regional hegemonic power in the 21st century, and, although it would be a diplomatic challenge, China would like nothing better than to see the United States de facto hegemony in Asia eliminated, though a continued presence in the region may still be desired.
Abstract

The People’s Liberation Army (PLA), the collective term for The People’s Republic of China’s (PRC’s) armed, air, naval and strategic rocket forces, is making significant strides toward modernizing its conventional armed forces and creating a credible power projection capability. There have been gradual improvements in the PLA as a result of dramatic shifts in leadership and growing professionalism of the PLA, changes in operational doctrine and concepts, reduction and restructuring of forces and military regions, and improvement efforts aimed at command and control.

With the virtual removal of the threat of invasion on the Sino-Soviet border after the collapse of the Soviet Union, and the belief that the near term will hold no major and/or nuclear wars, China feels it can afford to pursue a slow, but steady, pace of improvements in the PLA. It is China’s hope that by the middle of the 21st century the PRC’s defense capabilities will be nearer to advanced world standards. To achieve this aim, it hopes to develop a distinctly “Chinese-style” doctrine expected to match the U.S. “Air Land Battle” despite the United State’s superior technology.

If Beijing continues to enjoy economic success, it will be translated into improvements in the military sphere and, short of major political and economic reversals, the Chinese will play an increasingly significant role in the interplay of regional and international politics. Although it is believed China has limited potential to become a peer competitor of the United States within the next couple of decades, its relative power in Asia and globally will grow sharply during this period. Already it has developed a modest power projection capability and is intent upon expanding it. Success even if only partial, in pursuing advanced military technology and organizing concepts could enhance the speed and impact of China’s rise in power.

While it is true China’s military modernization efforts face many obstacles, the PLA’s future potential bears watching. It is not difficult to contemplate China becoming a regional hegemonic power in the 21st century, and, although it would be a diplomatic challenge, China would like
nothing better than to see the United States de facto hegemony in Asia eliminated, though a continued presence in the region may still be desired.
Thesis

This paper will endeavor to elucidate how China is making efforts toward modernizing its military in preparation for how they envision wars in the 21st century. A brief background is provided to show the PLA’s transition from Mao’s “people’s war” to their current strategy and doctrine of “limited war.” From there, the paper will focus on the PLA’s modernization efforts with respect to changes in leadership, operational doctrine and concepts, forces, and command and control. In conclusion, this paper will address the implications of the Chinese military modernization to the United States.

Background

From “People’s War” to “Limited War”

The essence of Chinese military doctrine during the 1930s and 1940s was to prepare for the time when the asymmetry between the Communist forces and their enemies would be overcome. Until that time, survival, expansion, and attrition through protracted war was the primary goal. Known as “people’s war”, this doctrine was dictated by the conditions facing the Chinese Communist Party (CCP) at the time. The origin of this manpower intensive doctrine was Mao’s effort to deter or defeat an attack on China and relied on millions of soldiers hunkering down in every hamlet and eventually wearing out better-equipped adversaries. Invasion, either by the Nationalists or Japan, was the major threat as perceived by the CCP. People’s war was the way, perhaps the only way; the CCP could have a chance at defeating superior adversaries. The essential aim being to swamp an incoming conventional land attack with a numerically superior defensive force. This doctrine was the result of lessons learned from the War of Resistance against Japan (1937-1945) and emphasized the preparation of masses of foot soldiers and militia to engage in
prolonged guerilla warfare in China’s vast interior. From the early 1950s to the mid-1970s, people’s war remained China’s military strategy.

In the late 1970s, Chinese military leaders began to modify the PLA doctrine, strategy and tactics under the principles of “people’s war under modern conditions.” The people’s war of “luring in deep” in a protracted war was downplayed, and emphasis was placed on military operations involving forward defense at selected locations near China’s borders to protect cities and industrial sites. This doctrine called for using modernized combined-arms tactics for the dual purpose of making the most effective use of current force structuring and of preparing the armed forces for more advanced future weaponry. People’s war under modern conditions entailed gradually converting the PLA into a smaller mobile force with enhanced maneuverability and firepower desired to meet the needs of local conflicts of varying degrees of intensity and duration. The principle of “people’s war under modern conditions” stressed well-equipped, well-trained, fast-moving professional units operating on China’s periphery.

Beginning in the 1980s, efforts by China have been aimed at streamlining the PLA and organizing it into a modern fighting force. Endeavors to improve the PRC’s military capabilities can be evidenced by the introduction of combined-arms and joint operations which is supported by a modified force structure and improved command, control, communications and intelligence (C3I). This shift in doctrine is attributed to Chinese leaders’ understanding that in contemporary times the nature of war has changed, as has the potential threat to security. Chinese leaders now see future wars as limited, regional and of short duration. In addition, the break up of the Soviet Union has virtually removed the threat of an invasion on the Soviet-Sino border allowing the PLA the opportunity to redirect forces and focus more on force projection as opposed to solely concentrating on defending their boundaries. More recently, the focus for the PLA has shifted from preparing for a major and nuclear war to planning, training and equipping for “limited and regional wars” of short
duration. The Central Military Commission (CMC), the key military decision-making body in China, has decreed that global war is no longer inevitable. For the foreseeable future, the world scene will be characterized by limited and regional wars involving high-tech weaponry. Emphasis on quick decisive results and high technology reflect a break with the traditional doctrines of "people's war" and "people's war under modern conditions." In preparation for limited regional wars, the PLA is gradually being converted into a smaller mobile force with enhanced maneuverability and firepower designed to meet the demands of limited, regional wars of short duration using high-tech weaponry, as well as major wars of longer duration.

**China’s Military Modernization Efforts**

**Leadership**

There has been a generational change in PRC leadership, which reflects a new generation of pragmatic leaders, including the president of the PRC and top military leaders. Jiang Zemin, president of the PRC, is generally regarded as "the core of leadership of the third generation." President Jiang Zemin, who also serves as Chairman of the CMC, has urged the PLA leadership to pay close attention to the development and changes of both domestic and global situations and take effective measures to maintain the PLA’s stability. For Jiang, the fundamental guiding principle of the military modernization efforts is to concentrate on improving the army, both with respect to troops’ quality and combat readiness. Jiang advocates readjusting the army structure and developing a way of modernization that costs less but works better. To Jiang, improving the army hinges on developing advanced arms and equipment, along with promoting military training and education (by year 2000, 70% of all PLA officers will have been college-educated compared to 1% in 1982), and enhancing logistics guarantee. Jiang also insists that efforts must be made to improve the ability of leading officials at all levels in the army such that they are better postured to handle affairs in
accordance with the law and learn how to use relevant laws and regulations to educate, guide and manage troops.

A dramatic shift in military leadership has been underway for several years. The elevation of Generals Zhang Wannian and Chi Haotian to the top rung of the CMC follows a series of leadership changes that have spanned the General Staff Department, the air force, navy and most of the military regions. General Zhang Wannian, who holds the top position in the PLA, helped develop the doctrine for “limited war under high technology conditions.” General Chi Haotian, who served as minister of national defense and is responsible for the expanding military cooperation with Russia, is noted for his six-point scheme for measuring PLA competence: creation of a strong sense of duty and role, completion of preparatory work including logistics support, superb military technique, flexible battle tactics, strict discipline and organization, and a stubborn fighting style. Both Zhang and Chi are proponents of modernization and the continuing professionalization of the PLA.

For China’s leaders, the economy is still the most important factor determining military power. Therefore, to compensate for being under-resourced PLA leaders are working to develop the capability to control sea lines of communication, project regional force, and deter the U.S. and other potential adversaries in creative ways without matching resources.

**Operational Doctrine and Concepts**

There have been important developments in Chinese strategic and operational doctrine and PLA organization over the past decade. In 1985, the military regions (MRs) were reorganized and consolidated from eleven to seven, each envisioned as a possible theater of war, with the aim of improving the command structure. There has been a shift from single-arms training to combined-arms training and from fighting an infantry force to fighting an enemy equipped with tanks, aircraft
and airborne, and with concentration centered on the comprehensive warfighting capabilities of units according to requirements of modern warfare conditions.

Learning from what they saw the U.S. do during the Gulf War, China is focusing on increasing knowledge and awareness of the battlefield, conducting simultaneous operations deep in enemy territory, and attacking an enemy’s key competencies and strengths without exposing their own weaknesses. Since 1990, the PLA has been able to successfully incorporate air mobile operations into some of its group armies and by the mid-1990s was beginning to grasp simultaneous operations in the forms of battle-space (land, air, sea and space).

China is also extremely interested in informational warfare. As one Chinese strategist has written, “the operational objectives of the two sides on offense and defense are neither the seizing of territory, nor the killing of so many enemies, but rather the paralyzing of the other side’s information systems and the destruction of the other side’s will to resist.”

The basis of the PRC’s defensive strategy lies in five warfighting capabilities. In sum, the Chinese have defined these as follows: coordination between the arms and Services, rapid response, electronic warfare, logistic support, and battlefield survivability. Training has been identified as the most important means of improving the five warfighting capabilities. In particular, the need to increase joint operations has been emphasized. In the past, emphasis on guerilla warfare and the role of the infantry contributed to a tendency within the PLA for each arm to conduct independent training. This naturally resulted in the development of each arm in isolation. Force structure reflected this single-arm trend and procedures developed for coordinated action were weak. Joint warfare has become the core of PLA training with the intent to improve its capability to coordinate operations, particularly large-scale, campaign-level operations. Chinese military leaders are concentrating on raising the comprehensive warfighting capabilities, shifting emphasis on training from single-arms to combined-arms and joint operations at the campaign and theater levels. An
amphibious exercise conducted in November 1995 was said to comprise “all ground, naval and air forces,” and there was the more infamous exercise off Taiwan in the spring of 1996, designed to intimidate supporters of independence on the eve of Taiwan’s presidential election.¹⁰

Chinese military doctrine reflects the shift in Chinese leaders thinking. The PLA is now planning, training and equipping for local conventional wars and unanticipated military crises around China’s periphery. Emphasis is being placed on obtaining quick, decisive victories through the use of highly trained forces and high-tech weapons. Limited war doctrine emphasizes well-equipped, well-trained, fast-moving, professional Rapid Reaction Units (RRUs) operating on China’s periphery. Limited warfare is the antithesis of defensive mass mobilization and protracted resistance on the interior and as such, reflects a clear break with the traditional doctrines of “people’s war” and “people’s war under modern conditions.”

As opposed to waiting for that point in time when weaker Chinese forces can overcome the unevenness of its potential adversaries, the PLA is also looking at asymmetric warfare with a focus on eliminating an enemy’s strengths without exposing their own weaknesses. The PLA is not seeking to mirror the forces of potential adversaries but rather is looking to ways to use technology to complement its strengths and putting together smaller building blocks of units that are fully trained.¹¹

Although, the PLA’s primary focus is on limited and regional wars, they have not altogether abandoned the possibility of nuclear war. Beginning in 1987, the Chinese began to use the term “limited deterrence” defined as a limited counter-force, warfighting flavor. Falling between minimum and maximum deterrence, it is intended to pose a significant nuclear deterrent to those global powers that might be tempted to intervene in a local war. China could deter the escalation of a conflict by ensuring that is has a credible nuclear warfighting capability that includes a second-strike potential. This limited deterrence doctrine was clearly in evidence during the March 1996
Taiwan Straits confrontation when Chinese missiles were fired at various open-ocean target areas near Taiwan with the intent to intimidate the Taiwan government.

Because Chinese leaders recognize the nature of war has changed, Chinese military planning is increasingly focusing primary attention on the preparation for and conduct of local war. Future military strategy will most likely continue to concentrate on developing a capability to fight short duration, high-intensity, high-tech wars in the region. In order to accomplish this military modernization, the PLA is focusing on developing small high-tech forces for flexible use in regional conflicts, and large low-tech and medium-tech forces for internal security and reinforcement in defense of the homeland. Also, though Chinese leaders deem nuclear war remote, as a precaution they are also continuing to develop modest levels of strategic nuclear forces to maintain a viable deterrent against other nuclear powers.¹² Already there have been significant developments reflected by PLA strategic and operational doctrine. In order to enhance its combat effectiveness, a series of organizational and structural reforms have resulted. Though far from complete, reforms include massive troop reductions; streamlining of redundant command and control; reorganizing and consolidating the military regions (MR) from eleven to seven – each envisioned as a possible theater of operations; and ground forces reorganized into Group Armies (GAs) – combined-arms forces resembling the Combined Arms Armies of the Soviet Army.

The PLA will not seek to mirror the forces of the potential adversaries, but instead will analyze how to use technology to complement its strengths and practice putting together smaller building blocks of forces. Once again, taking lessons learned from the Gulf War, Chinese military leaders are focusing on ways to counter U.S. military strengths – from stealth and long-range strike capabilities to space systems and computers, mainly by attacking what they refer to as the enemy’s “brain centers.”
Attacking U.S. vulnerabilities is part of China's asymmetric strategy designed to create conditions for a weaker power to prevail over a stronger one. For example, emphasis is placed on the fast pace of future operations and the need to launch preemptive strikes. Through preemptive strikes China will be able to put to good use timing, geographical location and the support of the people. By making a series of offensive moves to destroy the enemy's ability to employ high-tech weapons and troops, and limit an enemy's ability to acquire a high-tech edge in the war zone, The PLA will have weakened an enemy's capacity to mount a powerful offensive.¹³

Modernization of Forces
The PLA, which has traditionally depicted itself as a defensive force, has now turned itself around and is thinking in terms of force projection for what the Chinese claim are defensive aims. The transformation of the force structure, retrenchment policy and other reforms, modernization of weapons and equipment, training programs, and the best use of the composition and utilization of the armed forces are all prerequisites for the new defense force.

The single, most important objective of the PLA is streamlining and structural reform in order to transform the PLA into a comparatively smaller, better-educated and more revolutionary modern defense force which is capable of defeating a stronger adversary. If this transformation is completed, China will be armed with professional troops proficient in combined-arms operations and war - prepared in both peacetime and wartime. Even with military modernization placed secondary to economic modernization, China has managed to build small pockets of modernized forces, such as crack land, air and naval units. While they have shown they have the ability to build crack units, it remains to be seen if they can expand these small pockets of excellence.

Ground. With two-thirds of the PLA devoted to land-power, China clearly defines its military power through its ground forces. The PLA has set about to reconfigure itself for rapid deployment
and intense response. The main feature of the ground forces modernization has been the streamlined organization, improved command and control and improved training for forces. These efforts in conjunction with combined-arms units are geared to strengthen mobility and operational coordination in preparation for small-scale, low-intensity warfare along border areas. With the transformation of field armies as group armies, the PLA has enjoyed initial success in combined arms, joint operations and greater efficiency in command, control, communications, and information (C3I).

Group Armies (GAs) have combined formerly independent arms or services into a comprehensive combat unit. As a rule, GAs are made up of infantry and mechanized infantry divisions, tank divisions or brigades, and a number of artillery, anti-chemical, air defense, engineer, reconnaissance, signal, electronic counter-measure, and logistics troops. Most also have helicopters, though still a big problem, and other aircraft and naval support. This modernization effort represents a tremendous increase in tactical mobility and firepower, which can be crucial in limited and regional wars.

Instead of realizing fully digitized divisions, which is the goal in the U.S., the PLA is building up smaller units of highly trained soldiers and officers to support main force armies. A manifestation of China’s new national defense strategy has been the army’s creation of two forms of selected units: “fist units” and Rapid Reaction Units.” Both fist units and Rapid Reaction Units (RRUs) are on the cutting edge of doctrinal change called for by Chinese strategists. These strategists believe that limited war requires units modeled on the U.S. Marine Corps, the Army’s 82nd and 101st Airborne Divisions, and other rapid mobility units developed by the British, French and Israelis.

Fist units, the Chinese version of Special Forces, have been formed in each of the seven military regions. These units are used to test concept of operations and tactics to use with new
weapons systems and to develop effective field maintenance and repair procedures. In return, fist units teach new tactics and maintenance procedures to the other units in each region. The major aim of creating RRUs was the avoidance of protracted war. While still small in number, these better-equipped, better-educated units, which exist in most military regions, are responsible for countering both domestic insurrection and foreign invasion. With fist and rapid reaction units working more closely with air and naval commands, better coordination will dramatically increase the effectiveness of each branch of the armed forces.

Air. China is actively pursuing the development of several air power capabilities, focusing on asymmetric means instead of completely matching the air forces of its neighbors and the U.S. The PLA Air Force (PLAAF) has begun to replace its fleet of obsolete, first and second generation fighter aircraft based on 1950’s Soviet designs. They are doing so with an eye on improving the combat effectiveness and the range of forces that will play a key role in projecting China’s power across the Taiwan Straits or in the South China Sea.

Priorities involving force projection, include but are not limited to, improving air defense and developing strategic airlift, aerial refueling and a new generation of air superiority fighters. Compared to a decade ago, there has been a dramatic upgrade in capabilities with the deployment of Su-27 and J-10 fighters. In addition to purchasing well-equipped fighter aircraft, the PLAAF has sought to purchase both AWACS and in-flight refueling systems essential to a country seeking to project power a significant distance from its coastline. The PLAAF’s contingent of better-armed modern fighter aircraft, when combined with the range-extending effects of in-flight refueling and AWACS capabilities may give China an edge over any unwary, individual ASEAN state it may face.

Navy/Marine. A gradual change is likely to occur in how the PLA Navy (PLAN) equips, trains, and deploys its forces, based on what is called by analyst Paul Godwin a “three island chain” strategy. The first chain is the territory in the South Sea claimed by the PRC (e.g., Spratly Island).
The second chain would extend as far as Taiwan and outward 100 nautical miles. The third chain would allow the PLAN to reach as far as Guam, with all necessary at sea sustainment capabilities and air and submarine support to protect longer-range patrols. Priorities associated with improving China’s force projection include developing anti-submarine warfare, ship-borne air defense, sustained naval operations, and amphibious warfare capabilities. The focus of the PLAN is selective modernization efforts that will allow it to deploy vessels that have greater range, are more survivable, and carry more lethal weapon systems. The PLAN is a long way off from realizing its dream of a blue-water navy, but it is beginning to deploy a range of modern forces that will enable it to undertake operations in regions at greater distances from the mainland.

The Chinese Navy is growing, as is its presence in the South China Sea. China is improving the amphibious capabilities of its South Sea Fleet, constructing an airbase in the Paracels, and acquiring an air-to-air refueling capability for its naval air forces. The virtual dissipation of the land force requirement on the Sino-Soviet border has allowed China to divert limited resources to secure its maritime interests: a deep water navy and sovereignty over disputed island groups and territorial waters such as the Paracel and Spratly Islands. For some years the PLAN has been attempting to build up its blue-water capabilities, as well as amphibious and air forces, all pointed toward military operations in the South China Sea. The Chinese desire to dominate the South China Sea, along with a sense of competition with India, can be attributed to the PRC's interest in acquiring an aircraft carrier.

At present, the PLA’s defensive naval capabilities and efforts result in a “layered defense.” The first line of defense, charged with defense of coastal areas, ports and harbors, is the “maritime militia” consisting of fast patrol craft armed with surface-to-surface (SSMs) or torpedoes, and subchasers armed with anti-sub rocket launchers and depth charge mortars. Just beyond this inner
defensive perimeter is "the backbone of the PLA fleet" - destroyers and frigates. Outer maritime defense, modeled on Soviet doctrine, is the task of the submarines and navy bombers.\textsuperscript{18}

The PLA marine force is developing along the lines of the U.S. Marine Corps by becoming a self-contained fighting force. The PLA Marine Corps has been resuscitated as a fist unit with specialized tasking and transportation. They are estimated at 6000 strong and believed to be part of the navy manpower attached to the South China Sea Fleet. China is continuing to improve its capabilities to conduct amphibious and airborne operations within the region with this brigade-sized marine force, and if ever successful at purchasing and learning how to utilize an aircraft carrier, such an asset would enable it to provide increased support for amphibious operations. Some interpret this as a manifestation of a change from China's non-expansionist policies and/or the sign of ominous things to come. Such as the enforcement of China's claims to the Paracel and Spratly Islands.

**Militia/Reserves/People's Armed Police.** An important component of the Chinese forces, especially the ground forces, has been its militia system. It is now undergoing extensive revision. The precise manner in which the new system will operate has not yet been established, but it will be created by combining the militia with the reserve service. In the past, there were three categories of militia: ordinary, basic and armed. Ordinary militia received little or no training and consisted of little more than an organizational structure and a list of names. The basic militia was primarily composed of demobilized PLA personnel and volunteers. They received instruction from retired PLA cadres and participated in training programs conducted by the regional forces of the PLA. The armed militia was the central core of the militia system. Members were part-time volunteers selected from the ranks of the basic militia. They received their training from the regional forces and were led by full-time militia cadre and organized around their places of employment. The armed militia were trained and equipped to function like the regular PLA units having signals,
reconnaissance, and anti-chemical warfare detachments as part of their normal organizational structure.¹⁹

There are now two classes of militia: general and primary. The general militia takes the place of the basic militia and the primary militia replaces the armed militia. The new reserve system is built upon the primary militia and has two categories: first and second. The new reserve system forms part of an emerging pattern of a Chinese "total force" concept composed of three layers. The first is the active duty forces layer, the second is active reserve layer, and the third is a standby reserve layer. Renewed emphasis on the importance of the militia and reserve forces indicates they will be expected to flesh out the PLA's leaner ranks should a sudden need arise. The primary objective of the new militia/reserve system is to permit the PLA to reduce the size of its active forces. The reserve forces will supply a large pool of officers and enlisted personnel who can be quickly mobilized in national emergencies.

The People's Armed Police (PAP) were created in 1983 when the PLA transferred most of its internal police and border responsibilities to the new force. The PAP is primarily composed of "demobilized" PLA personnel and is supervised by the CMC. They receive direct military training with the PLA and other civilian militia forces. Since 1989, the PAP has expanded substantially, and though they are said to number around 600,000, there is nothing particularly threatening about them to opposing military forces. Their wartime role is strictly defensive. In the event China is invaded, they are subordinate to the MRs, but would not become involved beyond China's frontiers.

**Strategic Weapons.** Chinese military planning has increased focus on the preparation for and conduct of local war in which non-nuclear versions of strategic weapons would not only have a direct impact on political and military targets, but also serve as a warning of the possible escalation of the conflict to the nuclear level. The PLA is developing nuclear weapons both for deterrence and warfighting and for limited and nuclear war. By the middle of the 21st century China's nuclear
arsenal will be more capable, accurate, and flexible, and will allow the PRC to threaten most parts of the globe. The commonly accepted assessment is that China’s nuclear arsenal is similar in size to those of France and Great Britain. The cornerstone of China’s nuclear capability lies primarily in its land-based missiles.20 The PRC has clearly acquired Patriot technology, thereby enhancing China’s military capabilities by making its missiles less vulnerable to counterattack. The PRC is continuing to invest in a well-established comprehensive missile program including mobile ballistic launchers, launch attack cruise missiles and advanced surface-to-air missiles.

Command and Control

The overall pattern of China’s national defense organization provides both the centralized control required for a complex defense establishment and the flexibility required for defending a large landmass. From studying the U.S. Central Command during the Gulf War, China is hoping to bolster command and control through long-term investments in high performance computers, optics and electronics, air-to-surface and surface-to-air observation, and modern telecommunications. Although the PLA still lacks sophisticated electronics systems, to date the grade of automation, command support capability, and rapid response have all improved to some degree. Already, command and control systems have developed toward all-weather capability, multiple tactics and three-dimensional warfare. Specific technology under development, including early warning systems, may be operational as early as year 2005.21 China has made significant efforts to modernize and improve its command, control, communications, and computers and intelligence (C4I) infrastructure. Planned improvements include better coordination, more effective construction of C4I systems, and providing all military echelons with the technology required to have a unified C4I system capable of satisfying combat requirements.22 Progress has been made in C4I
modernization through the completion of an automated command and control system, developing a new type of general field communications system, and disseminating new general signal regulations.

Implications

The Chinese have made significant strides in modernizing the PLA, but there are some that believe China will not be able to project and sustain offshore military operations for at least thirty years. This is supported by several observations. Despite two decades of modernization, the PLA remains primarily an infantry force with marginal improvements in mobility and firepower. The PLA has proven it can develop a small number of crack land, air and sea units but has yet to demonstrate that it can expand this into a sizable and credible threat.23 Away from rail lines and airfields, the lack of adequate logistical, transportation, air defense, communications, armor and air support severely limits the ground forces capabilities.24 Although China desires a blue-water navy, the PLAN currently lacks the projection capability required to conduct a full-scale naval operation in the Spratly Islands, and the 6000-man marine brigade attached to the South Seas Fleet, although trained in amphibious warfare, would not be able to conduct successful operations if faced with significant air power. The PLA, at present, still lacks sophisticated electronics systems and is currently saddled with an obsolete and vulnerable command and control network primarily comprised of short-wave radio and telephones.

Until modernization objectives, which at this point are mostly a "wish list,"25 are more fully realized, the Chinese military will be restricted to limited quick skirmishes over limited distances offshore, only able to extend limited amounts of power over a limited range and for a limited time. Even doing this will become problematic for the PLA if the opponent it faces is of any significant size and strength.26 Thus, nuclear-armed China will not be a regional, conventional threat for decades to come.
The PLA’s long list of systemic problems, coupled with those facing the PRC as a whole, such as flaws in the economy, government/economy relationships, and government/population relationships, constrain military efforts in ways that may be ultimately insurmountable. The U.S. should not only monitor the PLA’s modernization efforts and the PRC’s ability to solve those major obstacles that currently impede progress, but also focus attention on impediments that undermine the PRC. Degradation in economic reform or civil/military relations may be more of a threat than the converse.27

However, a decade or two (or even three) is not that far off the horizon. Therefore, we should not let ourselves become complacent because of the obstacles the PLA faces today and underestimate China’s future military potential. Since the end of the Cold War, China has become a thriving state that is relatively secure against foreign threats. Chinese leaders are using this period of tranquility to buy time to strengthen China by building a strong economy and increasing its military potential. It is seeking to employ its growing capabilities to shape a fluid and potentially dangerous environment. The PRC is cultivating this goal by undertaking reform, which will allow it to become an economic and military power.

Four factors characterize China as a regional power: a large and diversified national economy, a major conventional military force, a strategic nuclear arsenal, and a strategic geographic location. Although military modernization is still subordinate to economic modernization efforts, China has been selectively laying the groundwork for a gradual but deliberate military modernization that could alter the balance of power in the region and adversely affect the United States interests much sooner than many China watchers may think.28 Now that the PRC has recently experienced explosive economic growth, and if it can continue to do so, military modernization may accelerate. A fear that China’s economic growth may feed its military growth is shared by many of its neighbors.29 If modernization efforts are realized, the PLA of the future will have the potential to
dominate and control terrain, lines of transportation and commerce, and populations in support of China’s interests.\textsuperscript{30} How regional allies attempt to accommodate in different ways their individual perceptions of Chinese intentions and capabilities is yet another concern facing the U.S. Finding ways to convince China to respond to calls for greater transparency, such as providing more visibility into its military capabilities both present and future, would lessen concerns about Beijing’s intentions.

The combination of economic growth and military force improvements could very well be a signal of Beijing’s intention to establish regional hegemony. China’s 1996 “missile diplomacy” in the Taiwan Straits just prior to Taiwan’s national elections could be interpreted as small and early indications of China’s aggressive and expansionist regional ambitions and desire to achieve a high-tech military capable of engaging in regional blackmail.\textsuperscript{31} Although it would be utter folly from a economic, political and military point of view for the PRC to launch military force against the Republic of China (ROC) on Taiwan, there are the elders in China who feel that time is slipping away. Reunification is a mania for some of the old communist revolutionaries. They still dream of reunifying all of China before they die. So while it may seem irrational, in the case of the PRC resorting to resolve the reunification issue, it remains a “thinkable” possibility the U.S would be wise to keep in mind.\textsuperscript{32}

In the next fifteen years, China’s nuclear modernization program will pose new challenges to the U.S. defense planners. To quote General Xiong Guangkai, Deputy Chief of China’s General Staff in a statement made to Charles W. Freeman, former Assistant Secretary of Defense:

“In the 1950’s, you three times threatened nuclear strikes on China, and you could do that because we couldn’t hit back. Now we can. So you are not going to threaten us again because in the end, you care a lot more about LA than Taipei.”\textsuperscript{33}

A new arms race could emerge and U.S. defense planners should reconsider their views on targeting strategy or treaty limitations on ballistic missiles defense.\textsuperscript{34}
Unencumbered of the threat of a Soviet invasion, the PLA will be better able to redirect, retrain and concentrate its combat power along China’s periphery. Because of U.S. forces stationed on the Korean Peninsula, U.S. Army and government policymakers must remain continually cognizant of China’s presence. Even in the event of the collapse of North Korea, China may not simply sit back and watch the U.S. and the Republic of Korea (ROK) armies march north, approaching the Chinese border. We should remain mindful that China continues to insist that it may use force to reunite Taiwan and the Mainland, and makes veiled threats against U.S. forces in Korea.35

Notwithstanding all the obstacles it faces, China’s military potential bears watching. There is a danger in ignoring the possibility that China might be able to modernize all its military, thanks in part to its own economic and industrial progress, foreign military assistance, and commercially available technologies that have military applications.36 Though progress is slow, China is on the right track and has a clear understanding on what it must do to put its military capability on a more equal footing with advanced nations, such as the U.S. Much of what the PRC desires for the PLA cannot be achieved near-term, or at all if the major systemic problems facing the PRC cannot be eliminated or minimized. Until China has resolved its economic problems, many of its military modernization objectives (e.g., developing a blue-water navy) will be more of a vision as opposed to a plan. However, China has placed economic modernization as the top priority for the PRC, with the bulk of spending going toward this aim. Therefore, it is not inconceivable that given time China will work out its problems and bring about economic reform which fosters a thriving economy. Should the PRC become an economic powerhouse, and should the PLA, with the world’s largest standing military, achieve its modernization goals, China will have the potential to translate its economic power into the military sphere.37 In the next twenty to thirty years, China will be placing emphasis on what it calls “comprehensive national power” – the combined weight of economic, diplomatic
and military power necessary to guarantee China the "appropriate influence on the world stage." With the realization of its military modernization efforts, China will not only be able to defeat its potential regional adversaries, but will also have the ability to coerce and exercise influence upon East Asia based on the capability to back up its policy with force. China may well be on its way to "Asian hegemony" whose size, economy, and military presence will be such that no country in the region will act without taking China's interest into consideration. U.S. presence in East Asia could be diminished, resulting in serious economic consequences, and the U.S. ability to defend its regional interests might be denied by a modern PLA capable of asymmetric warfare, which exploits U.S. vulnerabilities. The U.S. should prudently maintain and continue to improve the security system that has created a balance of power in East Asia. This entails taking modernization of the PLA seriously, maintaining the U.S. technological edge, and being more open about the military dimension of the U.S.-China relationship.
Notes

2 Gill Bates and Lonnie Henley, China and the Revolution in Military Affairs (Carlisle: Strategic Studies Institute, 1996), iv.
4 Dr. Andrew R. Wilson, Professor, Strategy and Policy Department, U.S. Naval War College, meeting with author, 12 May 1999, Connolly Hall, Newport, RI, written notes.
7 Ibid.
9 Lee, 21.
10 Karmel, 376.
13 Aubin, 18-20.
14 Wilson.
16 Yang, 99.
17 Ibid, 127.
18 Schulz, 8.
21 Karmel, 378.
23 Wilson.
24 Schulz, 10.
25 Wilson.
26 Ibid, 5-6.
27 Wilson.
28 Aubin, 17.
29 Caldwell, 28.
30 Wortzel, 11.
31 Schulz, 13.
32 Yang, 115.
35 Wortzel, 10.
36 Aubin, 17.
37 Wortzel, 1.
38 Wortzel, 2.
39 Aubin, 20.
Bibliography


