Observations on Military Modernization and International Influence – An Alternate View

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Force projection, missile and nuclear force modernization, and advances in C4I (command, control, communications, computers, and intelligence) often are the first things many outside observers consider when assessing developments in the People's Liberation Army (PLA) over the past decade and into the future. These capabilities are indeed important, yet they are only part of the story of the long-term Chinese military modernization program underway for nearly three decades. And when they are placed into the context of other aspects of Chinese civil-military activities it is possible to arrive at an interpretation that differs significantly from many common foreign perceptions. Today, I will add my perspective, which focuses on the ground forces, reserves, and militia (units that are not necessarily in the forefront of these developments), as well as discuss briefly force projection, missiles, and C4I.

The PLA of 2006 is vastly different than the PLA of 1996, but in many ways it is much the same. A significant take-off in PLA capabilities began in 1999, though these developments were based on the foundation of military modernization that had been underway for 20 years. Some of the factors coming together in late 1999 included:

- An emphasis in planning and training to deter further moves by Taiwan toward independence and, if necessary, to be prepared to use force to prevent Taiwan independence;
- Moderate reductions in personnel, as well as the beginnings of significant increases in funding coming available to the smaller force;
- Changes in the conscript, NCO, and officer management systems to promote a smaller, better educated, more technically-proficient PLA;
- After a decade of talking about it, the promulgation of new regulations to outline a new operational doctrine and an increased emphasis on realistic training;
- The introduction of significant numbers of new Chinese-produced weapons and equipment into the force, as well as an increase in imports from Russia. Perhaps the most important equipment factor was the increasingly widespread availability of computers, electronics, and communications equipment, such as satellite

communications, optical-fiber networks, frequency-hopping radios, etc, produced by the Chinese electronics industry.

Of course, the decisions that resulted in these developments had been made in prior years, but these new threads coming together nearly simultaneously around 1999 resulted in a "Big Bang" that set the stage for potential capabilities the PLA never had before.

At the same time, many traditions of the PLA's past continue – without doubt the most important is the PLA remains a party-army, loyal to the Chinese Communist Party and its ultimate defender. The PLA's political officer system, operating in close conjunction with military commanders, guides ideological and political work at all levels and is becoming more tactically and technically proficient to better integrate itself with the rest of the force. Likewise, the traditional process of consensus building through meetings at all levels among leaders and troops continues in the 21st century. Some of these traditions make an otherwise increasingly "professional" PLA slightly incomprehensible to many foreigners.

Moreover, despite the acknowledgement that "priority [has been] given to the Navy, Air Force and Second Artillery,"[1] the PLA is still a military led primarily by officers with a ground force background. Only gradually are non-army officers coming into senior-most positions of authority. Despite the fact the PLA as an institution is an excellent student of modern foreign military campaigns, no Chinese military officer has planned for or commanded *in combat* the integrated joint operations using the new doctrine and potential capabilities developed over the past decade.

Chinese writings often categorize developments in the PLA as being part of 1) "army building" or 2) "preparation for military struggle." These two categories entail several elements with many overlaps between them. "Army building" primarily is focused on personnel and force structure, new equipment, and the structure and roles for reserves and militia. Frequently, the "dual historic tasks" of "mechanization and informationalization" are touted as methods to build the new PLA. In 2004 the Chinese Defense White Paper adopted the concept of the "Revolution in Military Affairs with Chinese Characteristics" and

[1] State Council Information Office, China's National Defense in 2004, published December 27, 2004.

associated it with the tasks related to “army building.” Closely associated with “army building” is the concept of “preparation for military struggle,” which deals mostly with new doctrine, training, new equipment, and changes to the PLA’s professional military education system – in other words, how the PLA will fight in the future.

The PLA still relies on concepts of People’s War, now updated to People’s War under Modern or Informationalized Conditions, to guide its approach to warfare. Perhaps the most important component of People’s War today is the mobilization of the Chinese population and economy to support future campaigns. Political, economic, science and technology, and personnel mobilization all will be integrated to some extent in any military action that lasts more than a few days. Both the PLA and governments from national to local levels have expended huge efforts on building a National Defense Mobilization Committee system to coordinate economic development with military requirements, as well as construct a joint civil-military command, control, and communications structure that can be used in war and emergencies, such as natural disasters. One of the major factors fueling the perceived need for greater civil-military defense coordination is the assumption the Chinese mainland is vulnerable to long-range attack and *will* be struck in future wars. This perception has led directly to a large part of the active, reserve, and militia forces being dedicated to local air defense.

The PLA’s new doctrine also calls for retaining traditional elements of speed, surprise, deception, and use of stratagem in future operations. Mobility, firepower, special operations forces (SOF), and information warfare (IW) all are to be integrated along with reserve units, militia forces, and civilian support. The PLA will commit its best forces early and use new long-range capabilities, but commanders of all forces will also attempt to draw the enemy near, into kill zones, and strike using unsuspected methods from unanticipated directions. Indeed, the PLA will incorporate those weapons, tactics, and techniques known as “Assassin’s Mace” (*shashoujian*) along with many forms of information war into its battle plan. While it aims to prevail early in battle, PLA doctrine also understands “The decisive strategic campaign, as a rule, is composed of a series of battles, and a large-scale war cannot be won by

a single decisive battle."[2] PLA strategic guidance is based on the concept of "active defense," though, at all levels of war, Chinese planners understand the decisive nature of the offense, and allow for the possibility of preemption: "'the first shot' on the plane of politics and strategy must be differentiated from 'the first shot' on the plane of tactics."[3] On the other hand, within its national strategy, military power is understood to be but one element of comprehensive national power, and not necessarily the right tool for all jobs.

The PLA's ballistic and cruise missile force is often placed at the top of the list of its *shashoujian*. The growth of this force has received much attention over the past decade and indeed has been impressive, but this growth has not been unexpected. In April 1997, DOD's "Selected Military Capabilities of the People's Republic of China" reported

> China probably will have the industrial capacity, though not necessarily the intent, to produce a large number, perhaps as many as a thousand, new missiles within the next decade. Most new missiles are likely to be short-range or medium-range, road-mobile, and fueled by solid propellants. All of them are expected to have greatly improved accuracy over current systems, and many will be armed with conventional warheads.[4]

The current OSD Annual Report to Congress shows that estimate to be fairly accurate so far, with deployed systems numbering: 20 CSS-4 and 20-24 CSS-3 ICBMs, 14-18 CSS-2 IRBMs, 19-50 CSS-5 MRBMs, 10- 14 JL-1 SLBMs, and 710-790 CSS-6/CSS-7 SRBMs.[5] The DF-31 ICBM, which has been under development for nearly two decades, is expected to be deployed in the next year or so, but its range only partially covers the United States, and an extended range DF-31A is assessed to be deployed a few years after the DF-31. In 2004, OSD estimated that up to 60 Chinese ICBMs could be capable of reaching the United States by 2010. Additionally, a conventionally-armed CSS-5/DF-21 is under development or may already be deployed, and in the *shashoujian* category, recently there has been discussion of the conventional-version of the DF-21 being armed with a maneuverable warhead that can hit ships at sea. Of note, in addition to the SRBM brigades in Second Artillery the ground force

[2] *The Science of Military Strategy*, edited by Peng Guangqian and Yao Youzhi, Beijing: Military Science Publishing House, 2005, p. 294.
[3] *The Science of Military Strategy*, p. 426.
[4] U.S. Department of Defense, "Selected Military Capabilities of the People's Republic of China," April 1997, p. 4.
[5] Office of the Secretary of Defense, "Annual Report to Congress Military Power of the People's Republic of China 2006," p. 50.

has recently organized one, and possibly two, SRBM brigades in the Military Regions opposite Taiwan.

China also has fielded a variety of its own ground-, air-, and sea-launched anti-ship cruise missiles (ASCM), and has increased the lethality of its ASCM inventory with advanced Russian imports. The next development expected is the deployment of land-attack cruise missiles (LACM) that may approach the capabilities of the U.S. Tomahawk. (Taiwan already reports 36 DH-10 LACMs are deployed, but the current OSD Report says they are still under development.[6]) The Chinese defense industries also are working on developing air-delivered precision guided munitions (PGMs), including airborne laser designator systems. Some Russian-made air-delivered PGMs and Kh-31P Anti-Radiation Missiles likely are available for a limited number of PLA aircraft.[7] Artillery-fired PGMs are reported in the PLA inventory.

The PLA's current and projected ballistic and cruise missile deployments reflect a modernization of the force and increase in capability that deserve close attention. The numbers will grow and the accuracy and survivability of the force is likely to improve. Nevertheless, both the numbers and accuracy must be evaluated as to actual warfighting potential. As the only country that has used LACMs and other modern precision-guided munitions in combat, the U.S. has employed these weapons in quantities that far overshadow the current PLA inventory. For example, in the first weeks of the campaign against Iraq in 2003, the U.S. employed over 20,000 PGMs and 800 Tomahawks, including 39 Tomahawks launched in the unsuccessful decapitation strike on Dora Farms. In the first months of the Afghanistan campaign nearly 60% of over 22,000 bombs and munitions employed were satellite or laser guided.[8] China's SRBM force may be able to deliver a similar size warhead as many U.S. PGMs, but their accuracy does not equate to proven U.S. LACM or JDAM

[6] Interview with President Chen Shui-bian, *The Wall Street Journal*, April 25, 2006.
[7] Jane's Air-Launched Weapons, Bombs – Precision Guided Munitions, China, 16 January 2006 and Chinese Defence Today JH-7/A (FBC-1) FIGHTER-BOMBER http://www.sinodefence.com/airforce/groundattack/jh7.asp. A total of about 100 Su-30MKK and JH-7A aircraft can launch these weapons.
[8] Michael R. Gordon and Bernard E. Trainor, *Cobra II*, New York: Pantheon Books, 2003, p. 175 and 555 and Eric Schmitt, "Improved U.S. Accuracy Claimed in Afghan Air War," *New York Times*, April 9, 2002. By comparison, Iraq launched 331 Scud-B missiles at Iran during the Iran-Iraq war and 189 al-Hussein missiles at Iranian cities during the 1988 "War of the Cities" in what were generally militarily ineffective, but psychologically demoralizing, strikes. See http://cns.miis.edu/research/wmdme/iraq.htm.

(joint direct attack munition) capabilities. Doctrinally, the PLA seeks to be confident in its ability to win on the battlefield before entering into combat, which raises the question: The size of the PLA missile arsenal makes it destructive, but is it large enough to be decisive?

A close reading of many reports in the Chinese press arguably can lead to the conclusion that the senior PLA leadership has *not* yet reached the level of confidence in its newly acquired capabilities that would make them eager to engage in a military campaign at this stage of their modernization process. In fact, many Chinese writings and programs indicate the desire for another 10-15 years of development before the PLA reaches the levels of an advanced military. Nonetheless, as loyal instruments of party policy, should the PLA be ordered to take action before it has finished its modernization, its senior officers will obey the command of their civilian leadership and put together the best effort using the forces and weapons available to accomplish the political goals assigned.

Most ground force units, however, will probably not be among the forces participating in the initial stages of future campaigns that extend beyond China's land borders. The army's roughly 35 maneuver division/45 maneuver brigade force is now composed of about half "heavy" (armored or mechanized) units.[9] Many heavy units are much more mechanized, powerful, and better equipped with modern communications gear than their predecessors, but they are limited in their ability to deploy beyond the mainland simply because they require specialized sea or air transport the PLA still lacks in large numbers. Two divisions have been transformed to "amphibious mechanized infantry" divisions and one, possibly two, others are now "light mechanized infantry" divisions. Theoretically such units are more easily deployed over long distances and across oceans, but while the new amphibious armored vehicles assigned to these units can "swim" a few kilometers to shore or to a nearby island, they cannot cross a large body of water, like the Taiwan Strait, without specially outfitted air transport or sealift. According to my calculations, about one-quarter of army maneuver units have trained to some degree in amphibious operations, but this also means that a large percentage of training is directed toward other scenarios, especially in inland Military Regions. I judge rapid mobilization and deployment, air defense, anti-terrorist, logistics, new

[9] Force numbers in this essay update with new data figures found in Dennis J. Blasko, *The Chinese Army Today: Tradition and Transformation for the 21st Century*, London: Routledge, 2006.

equipment training, and general combined arms operations to be more commonly practiced than specific amphibious operations throughout the entire force.

The attention the Chinese armed forces pay to air defense is impressive: each of the active 18 group armies has an organic air defense or anti-aircraft artillery (AAA) brigade; over one-third of army reserve units are AAA divisions or brigades; and continuing emphasis is paid to civil air defense and post-strike infrastructure repair by militia units and local governments. Focusing on another priority, PLA ground forces, People's Armed Police, militia, and civilian police throughout the country routinely train in anti-terrorist operations and nuclear, chemical, and biological defense – often controlled by joint civil-military command posts.

Over the past decade, the army has emphasized development of its SOF and reconnaissance capabilities, with one SOF unit in each Military Region and tactical reconnaissance units in group armies and divisions, including the use of Unmanned Aerial Vehicles (UAVs). These units frequently train with Army Aviation (helicopter) forces that have been gradually expanding in size and capability, too. Nevertheless, helicopters are still a "low density" item throughout the PLA and their capabilities likely would be strained in any future scenario. In terms of overseas force projection, only a relatively limited slice of the ground force, i.e., a few divisions/brigades, SOF units, helicopter units, and SRBM brigades, is likely to be available to PLA planners for the next decade or so. On the other hand, the remainder of the large ground force continues to train for less likely contingencies as part of China's deterrent force from ground invasion or terrorist attack, as unlikely as those scenarios seem to us.

While I cannot judge specific capabilities and proficiencies of PLA units, many articles in the Chinese military media address both strengths and weaknesses in "army building" and "preparation for military struggle." Particularly significant is the recurrent the theme of the need for properly trained officers and NCOs who are not afraid of new equipment and who can operate and maintain their new gear. Closely related is an emphasis on better command and headquarters training to orchestrate the new capabilities available to the force. The need to include all forces and capabilities in training is reflected in the term "integrated joint operations," which reminds commanders that all elements of the PLA's new battlefield

systems must be included and efficiently managed in future operations. This year's emphasis is on realistic training and "training as you fight."

The warfighting capacity of all PLA services has increased over the past decade, but its ultimate purpose is not only to fight wars. According to *The Science of Military Strategy*, "Strategic deterrence is based on warfighting…. The more powerful the warfighting capability, the more effective the deterrence."[10] It can be argued that at its current stage of development, the PLA sees itself more as a deterrent force than a warfighting force.

> Strategic deterrence is a major means for attaining the objective of military strategy, and its risks and costs are less than strategic operations…. Warfighting is generally used only when deterrence fails and there is no alternative…. Strategic deterrence is also a means for attaining the political objective…. Without resolute determination and firm volition, deterrence is feeble.[11]

According to Chinese military writings, to guarantee deterrence China must 1) build a capable force (which it is unmistakably doing), 2) demonstrate its determination to use that force (which it does through military demonstrations, exercises, diplomacy, and propaganda), and 3) ensure potential opponents understands China's capability and determination. In 2001, the authors of *The Science of Military Strategy* assessed:

> China currently has a limited but effective nuclear deterrence and a relatively powerful capability of conventional deterrence and a massive capacity of deterrence of People's War. By combining these means of deterrence, an integrated strategic deterrence is formed, with comprehensive national power as the basis, conventional force as the mainstay, nuclear force as the backup power and reserve force as the support.[12]

As the decade has proceeded, I judge the PLA leadership has seen progress in all of these areas, but not so much for it to confidently advocate use of force in the near-term unless required by developments external to the PLA. Nevertheless, to those it seeks to deter, senior Chinese leaders intend to demonstrate that its "determination is the soul of strategic deterrence."[13]

[10] *The Science of Military Strategy*, p. 228.
[11] *The Science of Military Strategy*, p. 224.
[12] *The Science of Military Strategy*, p. 222.
[13] *The Science of Military Strategy*, p. 215.

Though the PLA seeks to increase its combat capabilities over time, the actual numbers of advanced weapons and units available to military planners remain limited. Current force levels cause me to assess the PLA's force structure is consistent with the needs of deterrence, retaliation if attacked, and defense of China's sovereignty (recognizing the extent of China's actual sovereignty is in dispute). From Beijing's perspective, strategic deterrence still has the potential to achieve China's political and military objectives.

Fifteen years after acknowledging the importance of high-technology weapons on the modern battlefield, the PLA *is not* trained, organized, or equipped to conduct the type of joint operations the U.S. military has executed on multiple occasions since 1991. Though the PLA has studied the campaigns of past decades, it is not attempting to organize or equip itself along the U.S. model though it *is* attempting in large degree to emulate the realistic training the U.S. has refined over the past three decades. While force projection, missiles, and C4I are central to U.S. military doctrine, officially promulgated PLA doctrine places much less emphasis on force projection and missiles, and PLA C4I capabilities appear to be much less "robust" than in U.S. forces. Moreover, PLA doctrine retains many traditional features such as People's War, civilian support and mass mobilization, camouflage, deception, and use of stratagem than is often acknowledged in foreign reports. Perhaps the most visible difference in the structure of the Chinese and U.S. armed forces is a simple comparison of the breakdown of personnel numbers among the services. The PLA remains a ground force-heavy organization with the percentages of its personnel distributed almost exactly as before the reductions of 700,000 personnel.[14]

PLA Active Duty	% of Total Force		U.S. Military Active Duty
Army	69%	36%	Army
Navy	11%	26%	Navy
(Marines, in PLAN)	(.4%)	13%	Marines
Air Force	17%	26%	Air Force
Second Artillery	4%		

[14] Percentages for the size of PLA services are derived from International Institute for Strategic Studies, *The Military Balance, 2004-2005*, London: Oxford University Press, 2004, p. 170-72. U.S. percentages, as of April 30, 2006, derived from http://siadapp.dior.whs.mil/personnel/MILITARY/ms0.pdf.

This is hardly a structure optimized for force projection overseas – though the PLA is slowly adding *some* of those capabilities.

What will the PLA look like in 10 years? I simply don't know and I certainly do not have access to secret Chinese plans, which could change as circumstances dictate. But I am uncomfortable with straight-line projections that assume what has gone on before will continue indefinitely. Too many unknowable domestic or foreign developments could intervene to change the speed and trajectory of current trends in PLA modernization. Myriad domestic and external factors could affect resources available to the military and significantly affect force levels and capabilities. China's neighbors, as well as the United States, should consider the impact of their actions on Beijing's perceptions and attempt to avoid the hazards of the "security dilemma." Improvements in transparency, candid dialogue, and exchanges about capabilities and intentions *on all sides* could be helpful in this regard. If outsiders are prepared for the amount of work necessary to better understand these developments, a large body of official PLA educational and news material is available to guide them. We have many of the texts the PLA uses to instruct its officers, and indeed have had them for several years. Nonetheless, many details concerning PLA force and readiness levels are not open to the public and Beijing can do a lot more to make its military activity understandable to foreign governments and concerned citizens.

The path of PLA modernization is not set in stone. Attempting to understand Chinese military developments using a Chinese frame of reference may result in significantly different conclusions than judging the same data from foreign perspectives. As always, I remain open to new evidence and look forward to new analysis that moves our understanding of the PLA forward.