

China's Military Modernisation: A Perspective

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Introduction

China has stated its intentions and allocated resources to pursue a broad-based military build-up encompassing force-wise professionalisation; improved training; more robust, realistic joint exercises; and the accelerated acquisition of modern weapons. The intelligence community estimates, however, that China will take until the end of this decade or later for its military modernisation programme to produce a modern force capable of defeating a moderate-size adversary. Recognising this deficiency, China's leaders have placed a near-term emphasis on asymmetric programmes and systems to leverage China's advantages while exploiting the perceived vulnerabilities of potential opponents - so -called Assassin's Mace programmes. Although military modernisation figured the last among Deng Xiaoping's Four Modernisations, there are increasing signs that China has embarked on its military modernisation to turn its people's army into a modern force.

Chinese have long realised that technology is the cutting edge in modern combat. Accordingly, it has embarked on an ambitious programme to revamp its technological capability. This process is likely to take between fifteen to twenty years. Evidence suggests the PLA is engaged in a sustained effort to interdict, at long ranges, aircraft carriers and expeditionary strike groups that might deploy in the western Pacific. Following the experience of US intervention with carrier battle groups during the 1995 and 1996 Taiwan Strait crises, there are signs that the Chinese military has invested in research, development and technology acquisition oriented towards anti-carrier operations. Similarly, China's placement of long range SAM systems capable of providing coverage over Taiwan's airspace, combined with expansion of SRBM and amphibious forces, is introducing a destabilising capability.

China's Military Doctrine

China's defence modernisation is guided by the overall principles of national strategy, which have been defined and re-defined in the last more than five decades. In general, in the last two decades, the national strategy of China is to comprehensively modernise the economy in order to usher in a "well-off society" and raise "comprehensive national strength" by 2020. Following this, the overall national policy perspectives included an emphasis on quadrupling gross domestic product to reach the current economic level of the developed countries, promoting science and technology potential of the country and bridging the gap with the advanced western countries. The Chinese Academy of Social Sciences in January 2000 prepared a report that suggested that China ranked 6th in global standing in terms of comprehensive national strength after the United States of America, the UK, Russia, France and Germany. It is marginally ahead of Japan while India is placed last of the ten, below Canada and South Korea. According to this report, China ranks fourth, fifth and sixth, respectively, in military and diplomatic capabilities, and gross domestic product indicators in the world.

To pursue these objectives, China launched the four modernisation programmes in 1978, to encompass agriculture, industry, science and technology and national defence in that order of priority. Externally, this policy meant building bridges with the major powers for smooth investments and technology flows and improving relations with neighbours for peace and tranquility and developing links with the developing countries for sustained supplies of raw materials for China's burgeoning industrial growth rates. Peace and development then became the watchwords of the Chinese leadership. Nevertheless, in conjunction with the above steps, China has undertaken a concerted military modernisation programme in the last two decades to protect its sovereignty claims and territorial integrity. The defence policy of China includes its changing threat perception, intentions and capabilities. In the People's War Strategy, soon, 'four firsts' became one of the classical expressions. These are :-

- (a) 'Human factor' came first in the relationship between weapons and men;
- (b) Politics came first in the relationship between political work and other works;
- (c) Ideology came first in the relationship between routine work and ideological work;
- (d) 'Living thought' came first in the relationship between book learning and practical application.
- (e) These principles are also expressed in the following :-
 - (i) Mind is superior to matter,
 - (ii) Thought is more powerful than weapons,
 - (iii) Doctrine overcomes strength.

Modernisation Strategy

- (a) Operation Iraqi Freedom is being studied to incorporate new ideas including rethinking assumptions about value of long range precision strikes, independent of ground forces. In a Taiwan conflict scenario, integration of psychological operations with air and rapid ground operations and improving joint operations capability by developing advance C4ISR systems and improving inter service cooperation.
- (b) Increased interaction and cooperation with foreign militaries to improve political and military ties.

- (c) China's extensive and well established ballistic missile industrial infrastructure continues to concentrate on replacing liquid propellant missiles with mobile solid propellant ones, reflecting concerns for survivability, maintenance and reliability and developing high priority ICBMs for theatre and strategic missions.
- (d) Research and development to produce a variety of systems including tactical and special purpose (aerial refuelling tankers, airborne early warning and electronic countermeasures) aircraft, as well as modern turbofan engine technology.
- (e) Building modern and combat capable surface combatants, submarines and amphibious vessels.
- (f) Producing advanced armoured systems, upgrade older models and develop next generation missiles.

Modernisation Parameters

Area Denial Capability

China is developing forces and concepts focused on denying an adversary the ability to deploy to locations from which it can conduct military operations. Increasingly, China's area denial forces overlap, providing multiple layers of offensive capability. PLA planners are focussed on targeting surface ships and submarines at long ranges. Analysis of current and projected force structure improvements suggest that in the near term, China is seeking the capacity to hold surface ships at risk through a layered defence that reaches out to the 'second island chain'. China has expressed interest in developing naval anti access capabilities that use a comprehensive C4ISR network to direct and coordinate naval, air, space and missile forces.

One area of apparent investment involves the pursuit of medium-range ballistic missiles, an extensive C4ISR system for geo-location of targets, and onboard guidance systems for terminal homing to strike surface ships on the high seas or their onshore support infrastructure. This capability would have particular significance for regional stability, owing to the pre-emptive and coercive options that it would provide China's leaders.

A layered system to achieve local sea denial would also employ submarines, maritime strike aircraft and modern surface combatants equipped with anti-ship cruise missiles (ASCMs). China's development of numerous varieties of mines, its acquisition of the KILO, SONG, and YUAN class diesel submarines and development of the SHANG class Nuclear Submarine illustrate the importance the PLA is placing on undersea warfare in its pursuit of sea denial. The purchase of two new Russian SOVREMENNY II class Destroyers and indigenous production of the LUYANG I/ LUYANG II Destroyers equipped with long range ASCM and SAM systems demonstrate a continuing emphasis on improving anti-surface warfare capabilities combined with mobile, wide area air control.

Building Capability for Precision Strikes

PLA planners have observed the primacy of precision strikes in modern warfare and are investing in both the offensive and defensive elements of this emerging regime. China is pursuing an array of improved ISR assets ranging from UAVs, constellations of various satellites, and more 'informationalised' special operations forces. Such forces could provide targeting data for long-range precision strikes linked by more robust communication systems.

To carryout precision strikes, China in the near future will have the following :-

- (a) Short Range Ballistic Missiles (SRBMs) (conventionally armed).
- (b) Land Attack Cruise Missiles (LACMs) (conventionally armed).
- (c) Air-to-Surface Missiles (ASMs)
- (d) Anti-Ship Cruise Missiles (ASCMs).
- (e) Anti-Radiation Missiles (ARMs)
- (f) Precision Artillery

Expeditionary Forces

PLA expeditionary forces include three airborne divisions, two amphibious infantry divisions, two marine brigades, about seven special operations groups and one regimental size reconnaissance element in the Second Artillery Corps (strategic rocket artillery). The capabilities of these units are steadily improving with the introduction of new equipment, improved unit-level tactics and greater coordination of joint operations.

In addition, amphibious assault missions for these forces could include; special operations to facilitate amphibious operations and disrupt communication nodes, air defence and the movement of reserve forces reacting to amphibious operations, airborne assaults to seize airfields for follow-on infantry forces; and, reconnaissance to provide targeting information and battle damage assessments. PLA ground forces in the Nanjing and Guangzhou Military Regions have received upgraded amphibious armour and other vehicles, such as tanks and armoured personnel carriers, and may deploy additional armoured vehicles and air cushioned troop vehicles to improve lethality and speed for seaborne assaults. Airborne forces would probably have priority use of the newly purchased IL-76/CANDIDS from Russia, and may acquire modern, armoured vehicles that can be airdropped. The quality and quantity of army aviation training has increased in recent years. Army aviation regiments actively study and explore new fighting tactics and training methods to increase their joint operations capability.

Expanding Air Defence

The PLA has shifted from point defence of key military, industrial, and political targets to a new Joint Anti-Air

Raid Campaign doctrine based on a modern, integrated air defence system capable of effective offensive counter air (OCA) and defensive counter air (DCA) operations. Under this doctrine, the PLA will use aircraft, surface to surface missiles, long range artillery, special operations forces, naval forces and guerrilla units to destroy an enemy's ability to conduct offensive air operations and provide comprehensive defence of PRC airspace.

Enhanced Reconnaissance Capability

China participated in the China-Brazil Earth Resources Satellite (CBERS) programme with the CBERS-1 and CBERS-2 remote sensing satellites. These satellites can take 20 metre resolution images in swaths exceeding 100 kilometres and transmit these digital images to earth stations. The programme will continue with follow-on satellites CBERS-2B, CBERS-3 and CBERS-4, which reportedly increase camera resolution substantially.

China is interested in acquiring a disaster environmental/ monitoring satellite constellation called Huanjing. Phase 1 of the programme calls for three satellites, two of which are equipped for visible, infrared, and multi-spectral imaging while the third will possess a Synthetic Aperture Radar (SAR) to see through weather. Phase 2 of the Huanjing programme allows for eight satellites (four imaging and four SAR) in orbit simultaneously.

In the next decade, Beijing most likely will field radar, ocean surveillance, and high resolution photo reconnaissance satellites. China will eventually deploy advanced imagery, reconnaissance and earth resource systems with military applications. In the interim, China probably will supplement existing coverage with commercial SPOT, LANDSAT, RADARSAT, Ikonos, and Russian satellite imagery.

Exploiting Information Warfare

The PLA considers pro-active strategy to be the most important requirement for information warfare to destroy or disrupt an adversary's capability to receive and process data. Launched mainly by remote combat and covert methods, the PLA could employ information warfare pre-emptively to gain the initiative in a crisis.

Specified information warfare objectives include the targeting and destruction of an enemy's command system, shortening the duration of war, minimising casualties on both sides, enhancing operational efficiency, reducing effects on domestic population and gaining support from the international community.

The PLA's information warfare practices also reflect investment in electronic countermeasures and defence against electronic attack (e.g. electronic and infrared decoys, angle reflectors, and false target generators).

Conclusion

Chinese military experts have concluded that the next 10 to 15 years present a critical strategic window of opportunity for the PLA. During this window an unprecedented digital divide will appear between the developed and developing countries and the gap between informationisation and mechanisation will become even wider. The PLA cannot wait until mechanisation is completed and thereby miss this window, for the price of a future catch-up in informationisation will be too high. However, if China plunges all of its resources into informationisation, while still lacking mechanised power, traditional firepower, and such combat platforms and tanks, airplanes and ships, the PLA will still lack combat capability.

Therefore, the best choice is clearly for the PLA to implement mechanisation and informationisation simultaneously, with a special emphasis on the latter. By using informationisation to drive mechanisation, China could skip some stages of mechanisation and directly enter the stage where mechanisation merges with informationisation - thereby achieving a "leaps-and-bounds" brand of development. Chinese military experts argue, "As we produce one generation, research and develop one generation and pre-search one generation, we must move on to explore one generation".

This "leaps-and-bounds" theory, which has become the linchpin of Chinese military development for twenty first century warfare, is currently reflected in a "Three-Step Strategy" for the PLA. Step one of this strategy calls for China to have developed a host of advanced weapons and systems for not only deterring but also waging a war in high-tech conditions by around 2010. Step two calls for China to accelerate the qualitative improvement of weapon systems and further optimise the organisational structure of the troops by around 2020. Indeed the "heart" of the current Revolution in Military Affairs (RMA) is said to consist in transforming the PLA's force structure. Precision guided munitions revolutionise above all a military's organisational structure (size, unit tables of organisation and equipment, etc). For example, functions that were previously performed by several troops or troop-arms can now be accomplished by one soldier using high-tech equipment, significantly reducing the size of the armed forces. Considering trends in the global RMA, the PLA's "ponderous" size and "lopsided" organisational system stand out as major problems. Finally, step three calls for China to achieve the informationisation of national defence and its Armed Forces by around 2050.

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