



Chinese Force Modernization and its Implications on the Region

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Introduction

China is engaged in a military modernization program that is continually enhancing the operational capabilities of the People's Liberation Army (PLA). In order to achieve this objective PLA has worked to reduce its manpower and replace obsolete military hardware with more sophisticated systems since the 1980s. Operationalization of advanced systems in its air, land, sea and missile forces have increased the PLA's military efficacy, specifically in the backdrop of its military doctrine of "Local War under Conditions of Informatization".¹

Induction of modern weapon systems in all its forces army, air force, navy and missile force, also known as 'Second Artillery Force' has necessitated changes in training and tactics as well. These developments have enhanced PLA's capabilities and augmented its capacity to deliver, placing China among major military powers of the world.

China's comprehensive national policy, which articulates its strategic objectives and the means to achieve those objectives however, are unclear.² It has maintained ambiguity in its claims over the entire South China Sea enclosed by what is called the 'nine-dash line'.³ China has also maintained ambiguity regarding its defence capabilities and expenditure.⁴

This strategic ambiguity can also be viewed as an approach that preserves flexibility for China in pursuing its maritime claims in the South China Sea (SCS). However, one can possibly put together Chinese grand strategy objectives drawn from strategic development, official policy papers and most importantly from arms acquisitions from abroad, and its indigenous military equipment programme.

Chinese officials conceptualize strategy in two parts: "comprehensive national power" (CNP) and the "strategic configuration of power" (SCP).⁵ The Liberation Army Daily, in April 2006 commenting on CNP, PLA's modernization goals, and China's international status wrote:

As China's comprehensive strength is incrementally mounting and its status keeps on going up in international affairs, it is a matter of great importance to strive to construct a military force that is commensurate with China's status and up to the job of defending the interests of China's development, so as to entrench China's international status.⁶

The strategic configuration of power or 'shi' in Chinese is generally understood as an "alignment of forces," Chinese policy makers continuously assess the SCP for potential threats like conflict with Taiwan and other claimants with whom it has territorial disputes, as well as opportunities that might need a modification in national strategy.⁷

SCP and CNP together reflect strategic thinking of Chinese policy makers in evaluating its security environment, analyzing relative Chinese strategic position in international relations and helping it in adjusting to contemporary geopolitical trends. Chinese leaders believe that the first two decades of this century provide a "strategic window of opportunity."⁸ They evaluate that throughout these years, both internal and external environment will be favorable for expansion of Chinese CNP and serving its strategic objectives. It includes successful reforms in the economic system for sustainable growth and stable progress, making major breakthrough in military modernization plans thereby attaining capabilities to launch and win localized wars, guarding its territorial claims in both South and East China Seas, and disputes with Japan, South Korea and India and securing the sea lanes of communication (SLOCs).⁹

China's Military Strategy and Doctrine

No single unified Chinese military doctrine has been published, so far. However, several documents and guidelines are available at different command levels of PLA, which are combined hierarchically. Chinese refer to them as science of military strategy. At the top of the hierarchy, lies a military strategic guideline which provides a direction on the current and future developments of PLA. The hierarchy of Chinese war fighting fundamentals are usually classified under two categories active defense, and local war under conditions of informatization. The old notion of people's war has also been made relevant today through adjustments and modifications.¹⁰At the campaign level, the PLA has designed doctrines and principles which it believes will facilitate China to win local wars in modern age, even against technologically superior adversaries.

Chinese government published a white paper in April, 2013¹¹which emphasizes on the use of information technology, regarding it as a force multiplier, by facilitating

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the PLA in carrying out military operations accurately at large distances in a shorter timeframe. Furthermore Chinese strategic thinking emphasizes on Active Defence.

Active defense hypothesizes a defensive strategy in which China will not resort to wars first, but it will respond only to preserve its national sovereignty and territorial integrity. Defence white paper states that "we will not attack unless we are attacked; but we will surely counterattack if attacked."¹²

Recognizing and exploiting asymmetries is a primary facet of Chinese strategic thought, particularly as means to defeat a relatively stronger adversary. Ever since 1991 America's Gulf War, PLA has emphasized the use of asymmetric approaches to take advantage of vulnerabilities of technologically superior adversaries.¹³ Fundamentals of China's asymmetric warfare calculation can be tracked from its serious investment in ballistic and cruise missile programs, anti-ship cruise missiles capabilities, undersea warfare mechanisms involving submarines and modern naval mines technology, counter and cyber space systems and special operations forces.

PLA stresses on grabbing the initiative in war once it is launched by an adversary. PLA's strategy also includes deception at both CNP and SCP levels. Chinese doctrinal sources term strategic deception as:

[Luring] the other side into developing misperceptions . . . and [establishing for oneself] a strategically advantageous position by producing various kinds of false phenomena in an organized and planned manner with the smallest cost in manpower and materials.¹⁴

Anti-Access/Area Denial (A2/AD)

Military alliances of external powers with countries in the region and origin of threat perception, China continues to expand means to deter and defy third-party interference, predominantly by the US.¹⁵ China's means and ways to deal with this challenge are manifested in a constant attempt to achieve the capabilities to attack, from long ranges, the counter force targets deployed or operating within the Western Pacific region, which the US defence departments calls "anti-access" and "area denial" (A2/AD) capabilities and strategies.¹⁶

Chinese navy is acting as vanguard in A2/AD developments. Its maneuverability, increased range and its long staying power at sea has enhanced its capacity to interdict other states' naval forces. In addition to this, the long range air defence

mechanisms and ship based cruise missile will expand the strategic depth for operations against a distant adversary in the Western Pacific. China is also reportedly developing multiple modern platforms to launch long range anti-ship cruise missiles which it considers a key weapon for these types of operations.¹⁷ However, to counter submarine attacks, China still needs to develop a strong undersea anti-submarine warfare capability for successful A2/AD operations.

Apart from this war fighting scenario, Chinese campaign hypothesis also identifies choices and options for “non-war uses of force – as political means of coercion but not full scale acts of war.”¹⁸ China’s military exercises in 1995 and 1996 in the Taiwan Strait are examples of “non-war” uses of force.¹⁹

Resources for Force Modernization

It is China’s long-term plan to construct an indigenous military industrial complex in order to fulfill PLA’s force modernization requirements.²⁰ With the gradual maturity in the PLA’s research and development (R&D) capabilities it has continued to reduce its dependence on arms acquisitions from abroad. However, PLA still gets foreign assistance to meet some serious near-term capability shortcomings. In order to support PLA’s modernization plan China also draws from various other sources like dual-use technologies, and foreign technology acquisitions.²¹

On March 5, 2014, China announced that it would increase military budget for 2014 to almost \$132 billion, a 12.2 percent rise over 2013.²² This increase in defence spending is following up on more than two decades of continuous annual rise in defense expenditure. From 2003 to 2012, Beijing’s officially announced military budget has increased by over 9.7 percent every year.²³

China has 2,333,000 active military force. Out of these 1,600,000 personnel belong to the army, 398,000 to the air force, 235,000 to the navy and 100,000 to the strategic missile force.²⁴ It also possesses a paramilitary force of 660,000 and reserve troops of 510,000 personnel.²⁵ Calculating at 2012 prices and exchange rates, the US Department of Defence estimated that China’s total actual PLA military-related expenditure for 2012 was between \$135 billion and \$215 billion.²⁶ However, in exact numbers, it is difficult to calculate PLA’s real budget allocations due to secrecy maintained on military expenditures. Beijing’s published military budget skips over some key categories of spending, such as procurement of weapons and equipments.²⁷ SIPRI database shows that from 2012-2013 China imported arms from a number of countries like Belarus, France, Germany, Russia, Switzerland, Ukraine and United Kingdom.²⁸ During this short period China

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imported military equipment worth 3,165 million US dollars. This database however does not give the number and types of weapons imported by China from different countries:

Weaponry	Total (US\$ in millions)
Aircraft	1057
Air defence systems	96
Artillery	13
Engines	829
Missiles	250
Sensors	231
Ships	690
Total	3165

Source: SIPRI database 2015

Force Modernization Goals and Trends

Chinese strategic goals and objectives are divided in two categories: short term and long term.

Short Term goals (5-6 years)

Attaining comprehensive defensive capabilities against internal and external threats (upgrading army, missile force, air force and navy respectively)

Achieving defensive integrated war fighting capabilities

Stiffening and reinforcing territorial claims over South China Sea (SCS) i.e. ADIZ, and passive engagement in SCS and Pacific Ocean

Appeasing and co-opting neighbors

Economic development and balancing internal development

Long Term goals (10-12 years)

Moving beyond the defensive capabilities and posture (navy and air force and missile force)

Attaining offensive integrated warfare capabilities to avoid naval quarantine or blockade

Attaining hegemony over SCS, active engagement in Asia Pacific and Indian Ocean- Regions to protect extra regional strategic interests i.e. Sea Lanes of communication (SLOCs)

Co-opting and coercing capabilities (regionally)

Sustaining development and expanding economic role, extra-regionally

Long term goals and objectives are measured from year 2013.²⁹

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Beijing is also investing in R&D and weapons acquisition to improve range and precision in its military capabilities, and operations in emerging domains like cyber and space warfare. Cyber and space warfare is becoming a critical aspect of Chinese force modernization.³⁰ The PLA, under the “Integrated Network Electronic Warfare” principle is paying special attention to information warfare by building Cyber and battlefield electronic warfare (EW) capabilities.³¹

China established a “direct-ascent kinetic kill anti-satellite capability” to low earth orbit when it hit and destroyed its defunct FY-1C weather satellite in January 2007.³² Following the US and coalition forces joint exercises and integrated operations, PLA reinforced the significance of space operations to enable “informatized” combat, asserting that “space is the commanding point for the information battlefield.”³³

China’s 5th generation fighters, which are not expected to be fielded before 2018, will reinforce A2/AD capabilities of PLA.³⁴ These aircraft are designed to be highly maneuverable, can deceive radars due to their aerodynamic stealth capability, and will be fitted with an internal weapons bay. Their advanced avionics systems and sensors will enable them to respond quickly in network-centric combat operations.³⁵ The aircraft have advanced targeting abilities and shield against any electronic countermeasures or integrated electronic warfare. When inducted in the Chinese air force these aircraft will bring qualitative and quantitative improvements in China’s existing air power by using low observable platform to augment regional air dominance and conduct strike operations.³⁶ In addition, China is engaged in upgrading its strategic bomber fleet which would certainly provide the ability to carry modern, longer range cruise missiles. Both the acquisition and indigenous manufacturing of reconnaissance and combat aircraft, longer-range unmanned aerial vehicles (UAV), like BZK-005, and unmanned combat aerial vehicles (UCAV) will supplement China’s capability to carry out distant clandestine surveillance and strike operations.³⁷

Ground based air defense A2/AD capacity building will likely be focusing on offsetting the adversary’s long-range airborne strike capabilities with increasing numbers of advanced, long-range SAMs. China’s current air defense A2/AD components include a combination of advanced long-range SAMs – its indigenous HQ-9 and Russian SA-10 and SA-20 PMU1/PMU2, which have the capability to protect against both aircraft and low-flying cruise missiles.³⁸

Present trend in Chinese weapons inventory will allow PLA to carry out a wide range of operations in South and East China Sea, Western Pacific, and Indian Ocean and South Asia.

PLA Military Equipment Numbers

Army (2015)*

Main Battle Tanks (MBT)	6,540
Light Tanks	750
Armored Infantry Fighting Vehicles (AIFV)	3,850
Armored Personnel Carriers (APC)	5,020
Artillery Pieces (all types)	13,178+
Anti-Tank Missiles	6,678+
Helicopters (all types)	1,048

Navy (2015)*

Aircraft Carrier(s)	1 (3-4 under construction)
Submarines	70 (including 4 SSBNs/ 24 SLBMs)
Destroyers	17
Frigates	54
Patrol and Coastal Combatants Ships	223+
Amphibious Vessels (all types)	362
Helicopters (anti submarine, early warning etc)	111+
Aircraft (bombers, fighters, ground/attack etc)	332

Air Force (2015)*

Total Combat-capable Aircraft	2, 239 (Fighter 842 & Bomber 106)
Helicopters	50+

China's Missile Force*/**

China has roughly 458 strategic missiles

System	Numbers of Missiles*	Launchers**	Estimated Range**
ICBMs	66	50-75	5,500+km
IRBMs	5-20	5-20	3,000-5,500km
MRBMs	134	75-100	1,000-3,000km
SRBMs	252	200-250	<1,000km
Cruise Missiles			Not known

Sources:

*Military Balance 2015

**Chinese Military Modernization and Force Development 2013, CSIS³⁹

Nuclear Weapons

China being a nuclear power, nuclear weapons make an important part of its SCP. It has officially maintained no first use nuclear doctrine (NFU).⁴⁰ This has two aspects: China will not be the first to use nuclear weapons against any other nuclear weapon state and that China will not threaten to use nuclear bomb against any non-nuclear weapon state. However, there are some ambiguities in conditions under which China's NFU policy will be operationalized. Whether an attack on territories that China claims its own but are not under its direct control, or high-altitude bursts (HAB) would also constitute a first use are the questions that have been left unanswered by Chinese nuclear doctrine.⁴¹

The new mobile missile systems like MIRVs with nuclear warheads are developed to guarantee the Chinese strategic deterrence against the US led emerging coalition in Asia-Pacific region. The systems also have the capability to defend China from Russian precision guided missile defence capability.⁴² According to the US assessment, PLA has installed new command, control, and communication (C3) capabilities for its nuclear forces. These have strengthened the capabilities of PLA's strategic missile force to maintain robust command and control at multiple unit-level in the battle field.⁴³

China seems determined to invest substantial resources to preserve a limited, but sufficient and effective nuclear force to ensure deterrence and retaliatory nuclear capabilities. In sea based capabilities, China continues to produce the JIN-class nuclear powered submarines (SSBN) capable of launching ballistic missiles. Both SSBNs and SLBMs (1 Xia which is type-092 SSBN with 12 JL-1 SLBM and 3 Jin type-094 SSBN with JL-12 SLBM) provide the PLA Navy its first ever long range, sea based nuclear capability.⁴⁴

Ballistic Missile Defense

Looking beyond the aircraft and cruise missiles, China has endeavored to gain a ballistic missile defense (BMD) capability for the defence of the mainland. The Russian made SA-20 (PMU1 and PMU2) which are the latest SAMs Russians offered for export has the stated ability to engage ballistic missiles with 1,000km range and 2,800m/s speed.⁴⁵ Chinese indigenous CSA-9 long range SAM have a limited ability of point defense against tactical ballistic missiles with range up to 500km.⁴⁶ China is advancing research and development on a missile defense shield program which constitutes "kinetic energy intercepts at exo-atmospheric altitudes (>80km), as well as intercepts of ballistic missiles and other aerospace vehicles within the upper atmosphere".⁴⁷ In January 2010, and again in January 2013, China

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successfully intercepted a ballistic missile at mid-course, using a ground-based missile.⁴⁸

In December 2014, China conducted their third successful test of a new hypersonic missile.⁴⁹ Earlier tests of the hypersonic glide vehicle (HGV) were calculated to have estimated speed of Mach 10—around 7,680 miles per hour.⁵⁰ In addition China maintains a wide category of cruise missiles for air, land or sea battle. It includes subsonic, supersonic and tactical cruise missile etc.⁵¹

Force Modernization and Its Implications on the Region

China has been active in the South China Sea for almost four decades, but initially the Chinese primary interest in the region was to compete with Taiwan for diplomatic recognition. It now appears to have strategic interests beyond the Taiwan Strait. Chinese force modernization, arms acquisition and manufacturing, and most importantly PLA's war fighting principles and doctrines reflect China's intentions and interests in the region.

Looking from this grand strategy perspective, Chinese core interests can be defined at political level, to maintain the status of a peaceful rising power and specifically, to be the sole regional power or hegemon. Economically, it aims to maintain the current development pace, involving regional states bilaterally and through multilateral forums, and extending its economic muscle around the world to co-opt states not only for economic gain but also for political objectives. China's strategic goals include keeping the SLOCs open, maintaining its credible nuclear deterrent power, and operationally not initiating but maintaining the capability of retaliating in a localized war through A2/AD mechanism.

Achievement of objectives like securing SLOCs for trade and particularly for oil supplies through the Indian Ocean from the Middle East has necessitated the Chinese navy to conduct anti-piracy operations. China is also building more aircraft carriers and in next 15 years the PLA Navy may be able to maintain four carrier battle groups.⁵²

In addition to this, disagreements with Japan over maritime territory claims and with various other Southeast Asian claimants to all or some parts of Spratly and Paracel Islands in the South China Sea have generated new pressures in the area. China has already built new islands at Johnson South Reef, Cuateron Reef, and Gaven Reefs. It is also structuring another artificial island on Fiery Cross Reef, which earlier was underwater, in the Spratly Islands in the South China Sea. It would be at least twice the size of the US military base on the Indian Ocean island

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of Diego Garcia and covers some 90 square kilometers.⁵³ This move has serious political, strategic and economic implications in the region. The reclamation of land at Fiery Cross is the 4th such development undertaken by China in the last 2 years and the largest in scope so far.⁵⁴

China's military modernization efforts have implications for the security and maritime interests of Taiwan, Japan, South Korea and the Philippines. Their primary apprehensions emerge from PLA's increasing capabilities. These countries are cooperating economically with China but are also hedging against perceived military threat from its rising military strength. They are therefore, seeking security guarantees from the US against China.

Japanese Premier Shanzo Abe in 2013, increased defense budget after eleven years and raised it to \$47.7 billion in 2014.⁵⁵ The Japanese Cabinet also approved a new interpretation of the country's right to exercise collective self defence. Japan's National Defense Program Guidelines (NDPG) echoed its rising apprehensions about regional security dynamics and highlights concerns and measures to cope with emerging multipolarity and power shift which has brought change in the US' relative influence.⁵⁶

Last year, the Philippines also signed a 10 year defence pact with US. This will give the US forces access to Subic naval base and Clark air base again.⁵⁷ The US had closed these major military bases after the Cold War. Reopening of these strategic bases reflect strategic thinking in the Philippines i.e. the Philippines threat perception vis-à-vis China. Setting up military hotline, early this year, between defence ministers of Seoul and Beijing implies that relations between the South Korea and China are improving. However the possible deployment of the US' Terminal High Altitude Area Defense (THAAD) system in South Korea and recent signing of an intelligence sharing accord with Japan and the US raised concerns in Beijing and questions the successful working of newly installed hotline.⁵⁸

A number of countries like Japan, South Korea, the Philippines and few others have long standing territorial disputes with China in the South China Sea. The assurances given by the US to its allies like Japan, the Philippines and the South Korea are perhaps US' most important allies in the Asia-Pacific region. Both Japan's and South Korea's defense ties with the US are almost six decades old. The security arrangements of the US with each country include a nuclear guarantee by which the US pledges its readiness to use nuclear forces to protect its ally. Such assurances against China carries serious implications not only for China but also for the US and the regional security architecture as interests of China are in direct contradiction with the interests of these states. A relatively tenses strategic environment may push the US for more tangible measures to reassure its

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commitments hence engaging China more vigorously. Washington therefore, is confronted with a new set of issues vis-à-vis its potential strategic intent and preservation of its tangible capabilities in the region. In this scenario, the US' ability to uphold its commitments and encourage allies to react against China's rising power may raise questions with regard to credibility of its continuous military pledges and assurances, and the US led security infrastructure of the Asia-Pacific region against China.

Xi Jinping's well-known idea of "China dream" calls for the "great rejuvenation of the Chinese nation" — and ingredient of that also engross reclaiming of Chinese controlled territories — restoring Taiwan, and attaining control over Diaoyu/Senkaku islands and taking back sovereignty of the South China Sea: a maritime territory that is disputed by more than 10 countries⁵⁹ — which it believes were taken forcefully or "stolen" by other foreign powers in the region when China was weak.⁶⁰

Conclusion

The policy of engagement of the US in the region emphasizes on the territorial and political status-quo against China. This policy will practically test the viability of not only the US' rebalancing strategy but China's Comprehensive National Policy (CNP), and deployment capabilities of its armed forces.

The China-India border remains the only major territorial dispute, other than SCS disputes, particularly Arunachal Pradesh and Tibet territories. President Obama's visit of India made it evident that India has a significant role in US' South Asia policy, which is part and parcel of the US' rebalancing strategy. Regionally, US' policy fundamentally brings it at odd with China and Russia. This great power politics in turn, generates a security-dilemma-like situation, where on one side India's stature is enhanced and on the other side it undermines the security of other states like Pakistan.

Chinese policies are gradually working against US' influence in the Asia Pacific region in multiple and subtle ways. Beside modernizing its military China is politically and economically co-opting the regional countries so as to dissuade them from joining the US led coalition against China. By engaging with the neighboring countries economically and making them dependent on itself, China would have more leverage to influence their policies.

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Endnotes

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¹⁷ These platforms include “conventional and nuclear-powered attack submarines (KILO SS, SONG SS, YUAN SSP, SHANG SSN), surface combatants (LUYANG III DDG [Type 052D], LUZHOU DDG [Type 051C], LUYANG I/II DDG [Type 052B/C], SOVREMENNY II-class DDG, JIANGKAI II FFG [Type 054A], JIANGDAO FFL [Type 056]), and maritime strike aircraft (JH-7 and JH-7A, H-6G, and the SU-30 MK2).” The Military Balance 2014

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