# Raring to Go- Recent Military Developments in China

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**Abstract**

*Ever since the 19th Communist Party of China (CPC) National Congress resolved, in October 2017, to raise a "world class military force" by 2050, developments in this direction have been swift and concrete in transforming structure, strategy, military equipment, professional military education, training and exercises. There is reflection of communist party's "absolute control over the military". Ranking third in the world after the United States (US) and Russia and first in the Asian region, the Chinese People's Liberation Army (PLA) forces are going through reorganisation of joint commands by 2020 and are projected to be "world-class" by 2025. The emphasis is on power projection through naval, air, and rocket forces. The focus of military preparedness is on Taiwan, Senkaku Islands, South China Sea, India-China border areas, and deterring the US and its allies. After the first aircraft carrier Liaoning made voyages in Taiwan Straits twice and operated as a trainer in the South China Sea, China is now constructing second and third carriers. Also, stealth destroyers and submarine development are being pursued. Focus is also on J-20 fighters, Yun 2 transport aircraft, UAVs and H-6 bombers even though China lags in turbo-fan technology. Among the long and medium range missiles, China is emphasising on DF-41 intercontinental ballistic missile (ICBM), DF-26 "Guam killer", DF-21D "aircraft carrier killer" and ballistic missile defence (BMD) systems. This article examines the recent military developments in China and highlights the challenges to the Indian security in coming years.*

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## Strategic Guidelines

The 19th Communist Party Congress (CCP) held in 2017 has placed substantial demands on People's Liberation Army (PLA), a trend that began with the previous Congress in 2012.[1] The Congress brought in Xu Qiliang and Zhang Youxia as two Politburo members from the military as has been the practice in recent decades – with no one from the military in the apex Politburo Standing Committee.[2] They were named Vice Chairmen, with President Xi Jinping as Chairman of the Central Military Commission (CMC).

According to a resolution approved by the 19th Party Congress, the party shall uphold absolute leadership over the PLA and other armed forces and implement Xi Jinping's thinking on strengthening the military, as part of the amendments to the party's fundamental document for its over 89 million members. The development of the PLA shall be strengthened by enhancing its political loyalty, strengthening it through reforms and technology, and running it in accordance with the law. The report of the Party Congress emphasised that a "modern warfare system with Chinese characteristics" should be constructed in order to assume the mission of the "new era" entrusted by the party. Specific mention was made of the airborne force – given its pan-theatre outreach.

Thus, one of the topics touched on by Xi Jinping in his report at the 19th Party Congress was China's ambition to develop its military into a "world-leading force". In order to achieve that goal, the absolute loyalty of military was demanded to the Party. Party military delegates attending the Party Congress voiced their approval. The Party's 'absolute leadership' was the constant catchphrase during the meetings. Such extensive coverage in the media suggests to a few things – that the party's appeal is still not percolated down to the unit levels in the PLA, that there is some resistance from some quarters, specifically those who may have been affected by the demobilisation process or anti-corruption drive or even to their "praetorian" demands of maximising the PLA's perspectives on issues of national importance and hold over the nation.

President Xi Jinping began another five-year term since the 18th Party Congress in 2012, having succeeded in staffing the military top command with his loyalists. The members of the CMC

were selected at the first plenary session of the CCP's 19th Central Committee. The military body also was shrunk from 11 to 7 members including Xi, as its chairman. The remaining six posts were filled by military officials who were handpicked by the President himself.

Of the two Vice Chairmen, General Zhang Youxia, 67, was promoted to second ranked Vice Chairman of CMC at the first plenum of the CCP's new Central Committee. The former director of the CMC's Equipment Development Department is widely considered one of the men Xi trusts most. Both Xi and Zhang are Shaanxi province natives and the children of revolutionaries – the "princelings". Zhang replaced Fan Chanlong, who retired during the 19th Party Congress but soon became the defence minister.

President Xi Jinping said at the opening of the Party Congress that China intends to upgrade its armed forces by 2035 in order to fully meet the challenges of modernity and the demands of the new era.[3] By the year 2020, mechanisation will be achieved, with IT application and strategic capability seeing big improvement. Xi added that China should build a powerful and modernised army, navy, air force, rocket force, and strategic support force, developing strong and efficient joint operational command institution for theatre commands, and create a modern combat system with distinctive Chinese characteristics.[4] Xi Jinping inspected the Joint Operations Command Centre of the CMC. On 03 November 2017, Xi led a group of the CMC to inspect the Centre, emphasising that the CMC should start with strengthening the readiness of war preparations and leading the PLA troops to fight, win and assume mission of the new era entrusted by the party and the people.

## Major Changes

One of the major campaigns in the country is the anti-corruption drive. A number of senior military officers were "investigated" and confined – a euphemism for arrest and disgrace. These include Gen Guo Boxiong, Xu Caihou, who was Vice Chairman of the CMC earlier, besides other senior military leaders. For Xi, support of the rank and file of the PLA is necessary for success of reforms and for his personal hold over the armed forces. Zhang Shengmin, the top anti-corruption official in China's armed forces, was promoted to the rank of General on 02 November 2017.

Another point President Xi made at the Party Congress was assurance to neighbours to resolve disputes through dialogue but not at the expense of Beijing's strategic interests. This has been his constant theme. He mentioned that the Asian countries should fend for themselves, suggesting delinking from the US.

The *Global Firepower Military Strength Index* has ranked China's armed forces 3rd out of 133 countries based on their capabilities on land, sea and air, as well as their financial dexterity and diversity of weapon systems. China's armed forces lead in the Asian region and are preceded by Russia and the USA globally.

China has graduated from low to medium technologies and has launched the Fourth Industrial Revolution. Also, it has emerged as the second largest economy. China is trying to weld together the civil and defence economies through "civil-military fusion" (CMF). On 02 March 2018, Xi Jinping chaired the third meeting of the Central Commission for Integrated Military and Civil Development (CCIMCD), where he emphasised strategic importance of unifying national power through reducing barriers between the commercial economy and defence industrial base. Days later, speaking at the 13th National People's Congress Xi called CMF a prerequisite for realising goal of building a strong military. CMF is a prominent component of a number of key government initiatives, including the Next Generation Artificial Intelligence Development Plan (2017), Made in China (2015), and Promotion of a National Integrated Circuit Industry Development Guidelines (2014). A documentary aired on state media revealed that President Xi Jinping has ordered Chinese defence firms to speed up weapons development and aim to do better than the world's most powerful militaries. His list of areas to work on includes supercomputing, ballistic missile defence and satellite navigation system.

As per Beijing Dalin Investment Management, a defence focused institute, the next five to 10 years will turn out to be golden age in the annals of the Chinese defence-related industry as more finances and technology resources will flow from the civilian side. In recent years, the central government has put forward a series of policies to promote civil-military integration. By 2020, a collaborative innovation system is expected to be established with open and shared basic resources and scientific achievements between military groups and civilian companies in multiple fields. The defence industries have also been reoriented to cater for exports and commerce. China's defence exports have gained

importance after the US, Russia, and European countries exports, although in value terms and geographical spread such exports are miniscule. Most exports are destined for Asian and African countries, specifically Pakistan, Myanmar, Thailand, Bangladesh, Egypt, and Sudan.

According to the CMC, Chinese military academies plan to limit the enrolment of postgraduates and doctoral students, in order to increase the in-service cadres to apply for post-graduate studies. A total of 6,800 postgraduates will be enrolled annually said the training management department of the CMC.[5] The military academies have decreased enrolment of graduates from 2,200 in 2017 to 1,800 in 2018. The postgraduate education will focus on practical training such as joint battle command and network security. In the meantime, enrolment of postgraduates for doctoral study is scheduled to drop by more than 64 per cent to 338 annually. Also, China has revised a regulation on civilian persons in the military in a bid to attract more talented people to work for the country's armed forces. These measures are necessary to enhance the quality of troops.

China's military has conducted more than 4,000 realistic combat exercises since President Xi Jinping launched the annual training programme on 03 January 2018.[6] While exercises were going on, all five theatre commands of the PLA were on duty and closely monitored training in their regions.[7]

## PLA

Reflecting the PLA's outward orientation as mentioned by the PLA White Paper of May 2015, China's approach to protect its overseas interests will include all military, paramilitary assets, in addition to other forces. These include China's investments abroad (over $1.75 trillion), relocation of hundreds of industrial parks globally, more than 36,000 of the country's enterprises located overseas and more than 140 million of its citizens who travel abroad annually. China is gearing to protect overseas interests to counter terrorist or piracy incidents. Killing of Chinese citizens in Africa, Pakistan and Afghanistan has come as a wake-up call for China. This also provides an opportunity to deploy forces abroad.[8]

In 2018, focusing on improving the Army's ability, focus was on the following aspects:-

(a) To deepen study of combat issues and train and develop advanced military theories.

(b) To ensure that security threats are dealt with resolutely and emergencies handled expeditiously.

(c) Strictly follow the law and maintain proper discipline during training.

(d) Adapt to changes in national defence and military reforms.

(e) Firmly lay foundation for combat effectiveness in the armed forces.

(f) China should strengthen cooperation and joint military training with the armed forces of cooperating countries.

(g) Efforts should be made to improve training conditions for troops and shared use of training resources throughout the PLA to enhance information and standardisation of training support.[9]

The PLA has published guidelines on how and when barracks of some units can be opened to the public, to boost awareness pertaining to the national defence. The idea is to strengthen public's passion for the military and their respect toward service members and encourage officers and soldiers to dedicate themselves to building a strong military. This is the first time the Chinese military has issued specific rules for interaction with the public.

The reorganisation of the PLA affected mainly the ground forces and specifically the infantry as a "lean and mean" force. 24 Group Armies have been reduced to 13 – a drastic reduction indeed. Brigadisation for special operations and faster mobility is being attempted. Of specific interest to India is the reorganisation in the Western Theatre Command at Chengdu. 76th and 77th Group Armies in this theatre are undergoing reorganisation.

**PLA Navy (PLAN)**

China is developing a navy with 550 warships by 2030; double the size of the US navy and working to replace the US as number one. "Expect China to push US out of the region. Expect to lose more allies," James Fanell, a former Navy intelligence officer at the Geneva Centre for Security Policy told the House Intelligence Committee on 17 May, 2018.[10] China's naval forces witnessed the fastest development among the armed forces of the country. For outward projection, China requires naval bases and replenishment facilities. In 2015, China opened a naval base at Djibouti and has also begun port construction across the world, including

Hambantota and others. China may soon have a military base in the South Pacific island nation of Vanuatu. According to a report China is keen to have a permanent military presence in the South Pacific. The report says the governments of China and Vanuatu have had preliminary discussions on this issue, though a formal proposal is yet to be made. China is planning for alternatives as well.[11] With the acceleration of the development of China's military industry, military bases on the land cannot meet the needs of the Chinese Navy. Therefore, the concept of a "mobile land" has gradually emerged. China's ultra-large floating island offshore platform has been developed by Jidong Development Group. China's floating island truss area is approximately 120 metres by 900 metres. It is powered by small nuclear reactors. Therefore, the platform also possesses certain military capability and can provide short-range landing.

China launched naval vessels with large tonnage, stronger firepower, different classes and complete combat functions. They cover a wide range of aircraft carriers, large comprehensive supply ships, destroyers, frigates, surveillance ships, electronic reconnaissance ships, training ships, far sea rescue tugboats and other ships. The Chinese Navy's 055 destroyer and domestic aircraft carrier are the highlights.

On 26 April 2017, China launched its indigenously built Type 001A aircraft carrier. It underwent sea trials in 2018 and by early 2019, it had conducted five such sea trials. According to a naval expert, China is likely to adopt the electromagnetic catapult technology in its second home-made aircraft carrier, which would help launch fighter jets more efficiently in less time. The experts said that China has acquired the electromagnetic catapult technology and has conducted several tests.[12] The third 003 aircraft carrier has been under construction in Shanghai for three years. China intends to possess four aircraft carriers by 2030 with major implications for the Indo-Pacific security.

China has increased the number of submarines, warships, amphibious ships, and auxiliary ships. Since 2014, it has launched 28 ships.[13] China boasts of building submarines with nearly one being churned out at its shipyards every year. 094A submarine is the most advanced nuclear submarine of the Chinese Navy. The new generation of conventional Air-Independent Propulsion (AIP) submarine has made great progress in quiet performance and

weapon power. China's 041-class AIP submarine is under construction. Admiral Zhao Dengping revealed programme for construction of a new medium size nuclear attack submarine; a small nuclear auxiliary engine for conventional submarines; ship-based use of anti-ship ballistic missile (ASBMs); next-generation destroyer capability and goals for PLAN Air Force (PLAN AF) modernisation.[14]

PLAN went through amphibious warfare against Taiwan in the 1950s and is now adapting to the modern conditions. China North Vehicle Research Institute in Beijing is developing a four-wheeled amphibious multi-role vehicle, of 5.5 metric tonnes and speed of 50 kmph, which can be used during training at sea as well as for special warfare. Another experiment is on AG600, an amphibious aircraft of 53 tonnes that can be used for rescue and fire-fighting. China's Norinco Group said that it is developing VN18 as the world fastest amphibious assault vehicle.

Other developments include Type 071 landing ship (Longhushan) of 29,000 tonnes, 210 metre long, 28 metre wide, the largest domestically designed amphibious warfare ship in China. It has helicopters that can land on islands. China owns five amphibious warfare ships. An electromagnetic railgun to launch projectiles at distance of over 100 nautical miles at speed exceeding Mach 6 is under development.

For maritime scientific research, China is developing a new deep-sea research vessel Dong Fang Hong 3 which is 103-metres long, 18-metres wide and can accommodate 110 people. A seventh intelligence collection vessel Type 815A was launched at the Hudong-Zhonghua Shipyard in Shanghai.

For naval aviation, four KJ-500s each are in service with the PLAAF and PLANAF. These are deployed at Lingshui in Hainan and at Lhasa-Gonggar airport in Tibet.

The PLAN had conducted exercises in Miyako Straits and Bashi Channel- indicating its readiness to graduate into the Pacific Ocean in the coming years. The training ship, 10,000 tonne Qi Jiguang of the Chinese PLAN visited Sri Lanka on 10 November 2017 on a four-day goodwill visit suggesting that the Indian Ocean is also on the radar screen of China. Till now, the PLAN has conducted 28 missions to the Gulf of Aden.

## PLA Air Force (PLAAF)

PLAAF is developing an expeditionary capability. PLAAF has recently released pictures of flying four fourth generation J-20 stealth jets. Wu Qian, a spokesman for the Chinese Ministry of National Defence, announced that the PLAAF has started transition from the national air defence to both offensive and defensive operations. The J-20 was officially commissioned into military service in September 2017. China Aircraft Industry Corporation has launched a carrier-based version of the J-20 project. However, J-20's manoeuvrability, fuel efficiency, and "stealthiness" at supersonic speeds are suspect. The third-generation J-20 and Y-20 have begun training together. At least five Y-20 transport aircraft – with maximum take-off weight of 200 tonnes, went into service in the Western Theatre Command.[15] China's new multi-role fighter jet J-10C has begun combat duty. Equipped with an advanced avionics system and various airborne weapons, it is capable of precisely striking land and maritime targets within medium and close ranges. The medium-sized military transport aircraft Yun-9 is also ready for combat missions and will boost China's effort in safeguarding maritime rights. H6N bombers have entered production phase recently. China is planning to build two giant 6-engine Antonov An-225 aircraft in Chengdu and Shaanxi as a part of an agreement with Ukraine. Measuring 84 metres in length with an 88.4 metres wingspan, this plane can carry 640 tonnes.

The Black Hawk helicopters, procured from the US prior to the Tiananmen Square incident, are being replaced with 10-tonne Zhi-20 helicopters. There is also the AV500 unmanned helicopter project that China is involved in.

China has undertaken a variety of UAV programmes given its diverse applications. China's heaviest cargo UAV, AT200 drone, completed its maiden flight on 26 October 2017. It can fly for more than 1,300 miles in one go, with speeds up to 194 miles per hour while carrying a 1.5-ton payload. Another project is Wing Loong II which reportedly hit five targets in succession with five different types of missiles in a single sortie. The Wing Loong II is likely to be deployed in China's future military actions, especially in anti-terrorism, peace keeping and border patrol operations. China Aerospace Science and Technology Corporation developed Caihong 4 (CH-4) capable of both, extensive bombing and precise targeting.

## PLA Rocket Force (PLARF)

The PLARF was reorganised in December 2015. As the service in charge of "counter-nuclear strikes", it has been acquiring new and effective platforms recently. Solid propellants, multiple independently launched re-entry vehicles, and reducing circular error probability are the areas of focus in this field. China is estimated to possess above 300 nuclear warheads. While China has substantial nuclear fissile material to leapfrog into higher deterrence capabilities, the current focus has been on a range of ballistic and cruise missiles and hypersonic glide vehicles (HGVs).

The modernisation drive of rocket force is focused on consolidating and improving strategic deterrence and combat capability, although the official propaganda suggests that this is necessary for safeguarding national security and is not aimed at any country or specific target. The missiles of the rocket force were, over a period of time, hidden in the mountains, lack mobility, and are vulnerable to attack. To overcome this, the rocket force is now equipped with electromechanical launch transformation vehicle.

Information released by the China Academy of Engineering Physics in early 2018 revealed that between September 2014 and December 2017, China carried out around 200 laboratory experiments to simulate the physics of a nuclear blast. In comparison, the US carried out 50 such tests between 2012 and 2017, which average about 10 per year.[16]

One major activity in the recent times is the development of hypersonic missiles. These are new class of vehicles designed to evade missile defence system. Russia (Zircon), China (DF-ZF) and the US (Ground Based Interceptor Facilities) are all developing their own versions of technology. According to reports, China's new hypersonic ballistic missiles will not only challenge the defences of the US but also be able to more accurately hit military targets in Japan and India. PLARF conducted two tests of a new HGV, known as the DF-ZF or DF-17 in late 2017. Over seven such tests were reportedly conducted by China. The HGV systems can be used with various kinds of ballistic missiles, including ICBMs with a range of at least 5,500 km.

China is also developing a new version of ICBM. When

President-elect Trump received the phone call from Taiwanese President Tsai Ing-wen, China launched DF-41 from Russian borders that could hit any target in the US. Two days before President Trump visited Beijing in November 2017, China tested one more ICBM. By 2018 eight tests were reported. As the latest generation of nuclear missile developed by the Chinese rocket force, the DF-41 has a range of 14,000 km and can cover most of the world. This type of intercontinental missile can carry 6 to 10 guided nuclear warheads. In some areas, the missile can be equipped with 10 sub-guided nuclear warheads, with the ability to break any anti-missile system in service. China's hypersonic combat systems can be integrated with the DF41 and China is likely to be the first in the world by 2020 to deploy hypersonic weapons.

Another important version is the short to medium range missile to deter the US alliances in East Asia. Newer versions of DF-11 and DF-16 are under development. Unveiled during a military parade in 2015, the DF-16 is capable of carrying up to three nuclear warheads. DF-16 can target Taiwan, the US Marine Corps Base in Okinawa, Japanese islands and the Philippines.

The Dong Feng-26 Intermediate Range Ballistic Missile (IRBM) can strike medium to large targets on land and at sea. Manufactured by the China Aerospace Science and Technology Corporation, it has a range of 1,900 to 2,500 miles. It is capable of reaching US military bases in Guam, prompting its nickname as "Guam Killer", with nuclear weapons.

Dongfeng-21D is China's first anti-ship ballistic missile. It has a range of 1,500 km. It can carry out attacks on large-scale enemy ships and is hailed as the aircraft carrier killer. The missile has re-entry capability and can reach over Mach 10 at the end of the flight.

China conducted its first mid-course ballistic missile defence experiment on 08 February 2018. It is also developing and equipping a variety of advanced anti-missile systems like the Hai Hong Qi-9 anti-aircraft missiles, acquiring the Russian S-400 systems etc.

**PLA Strategic Support Forces (PLASSF)**

China's Strategic Support forces are emerging in the PLA, although information about their structure, functions and equipment is sketchy

at present. However, this force has capability in cyber, space warfare, and military intelligence fields. It has nearly 45 military departments to give it the same status as the Army, Air Force, and Navy. The emphasis is on non-kinetic form of war. The global attention has been on cyber capabilities of China. After maritime challenges, the United States considers China's cyber capabilities posing considerable threat. From January to October 2017, China was hit by 17.5 million cyber attacks, most of them from overseas, according to the National Computer Network Emergency Response Technology Team and Coordination Centre.

## Conclusion

China's leadership made concerted effort recently to make the PLA forces global in nature in terms of re-aligning their orientation towards pan-theatre warfare techniques, agile combat structures, providing modern technologies, increased training time for the joint integrated operations and the like, though the progress is at best incremental in nature. Given changing outlook of leadership towards more exuberant outward orientation, the PLA is also tasked to intervene in regional and global theatres – a change compared to the pervious eras.

As far as India is concerned, while it is not the primary target area for the PLA, the latter is making efforts at strategic domination specifically in the light of recent border standoffs at Depsang, Chumar, and Dokhlam. After 2015 reorganisation of the PLA, Chengdu Military Region (which has operational jurisdiction over most borders with India) and the Lanzhou Military Region (which has jurisdiction over Aksai Chin) were merged into Western Theatre Command. All provincial military commands were integrated with National Defence Mobilisation Department of the CMC, except for Tibet Military Command which was brought under the jurisdiction of the PLA. Instead of focusing on militia, reserves and conscription work, this elevation in rank for Tibet-based forces meant acquiring combat roles and preparing for conflict with India. More resources are being made available to Tibet Military Command.

New military equipment is being deployed in Tibet. These include 50 km range laser-guided and satellite guided PLC-181 vehicle mounted howitzers; 32 tonne 105 millimetre gun; T-15 light tank; new LW-30 laser defence weapon system; GJ-2 medium-to-

high altitude armed unmanned reconnaissance aerial vehicle; synthetic aperture radar and an electro-optical pod carrying 12 small missiles; 10-tonne Z-20 medium lift helicopter; Y-20 strategic transport aircraft; Y-9 transports are deployed to the frontier areas for early warning, surveillance and transport duties. These highlight the challenges for the Indian security in the coming years.

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