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Abstract

While the current phase of China's military modernisation began in right earnest since the mid-1990s, it is the period after 2016 when the final step to defence hierarchical reforms was taken. Meanwhile, the process of comprehensive bottom to top levels of forces' modernisation has reached a stage where the fundamentals had been secured in place and the process of extending its coverage to the entire order of battle is well on its way. Thus while announcing the commencement of the final phase of military reforms and modernisation, President Xi Jinping had specified the Year 2020 as the target year for the PLA to be operative as a reformed and modernised force.

With the period 2016–17 committed to implement the hierarchical structure reforms, the following three years of 2018–20 was a crucial period for the PLA to fully operationalise its modernised force-structure and to orient itself to the tasks mandated by the Central Military Commission (CMC) and the Communist Party, both head by President Xi Jinping. Being on China's cross-hair, regular monitoring of the PLA's modernisation schemes as well as the process of operationalisation of these is a focus for the Indian strategic community.

This Monograph begins with a brief but relevant recall of China's military modernisation endeavour from its beginning in 1980 and proceeds to analyse

the PLA's mandate vis-à-vis the orientation of its modernisation. Next, it lists the major modernisation events and the training activities conducted during the said period of 2018-20, followed by analyses of the objectives of thereof. Further, the Monograph relates the PLA's modernisation and training activities to its assertive posture along the Indo-Tibet border. The monograph concludes with an assessment of the CMC's strategic objectives and the PLA's current warworthiness to secure these.

Preamble

"China is not a super power, nor will she ever seek to be one ... If one day should China change her colour and turn into a super power, if she too should play the tyrant in the world, and everywhere subject others to her hullying, aggression and exploitation, the people of the world should identify her as social-imperialist, expose it, oppose it and work together with the Chinese people to overthrow it." – Deng Xiaoping ... (Is the Party listening! – Author)

The Setting

With a perpetually animus adversary of immense power and irrepressible aggressive propensities poised menacingly against the nation, regular monitoring and analyses of China's course of military modernisation has been a priority commitment for India's defence planners and the strategic community at large. To be of relevance, such studies and analyses have to keep pace with periodic developments in China's military power, and cover the entire spectrum of modern warfare including the new advancements in military science on which the People's Liberation Army (PLA) has been investing heavily since the past two decades.

Indeed, monitoring and analyses of that kind assist in right orientation of India's defence planning and preparedness. It also brings focus on development of optimal counter-measures - conventional and asymmetric - in order to stand up to our ever-inimical adversarial power.

The Modernisation Process

The process of the PLA's new generation modernisation and restructure had commenced in the early 1980s at the instance of Deng Xiaoping. The objective was to absorb the contemporary advancements in the field of military affairs. In the mid-1990s, as China's modernisation of other pillars of national power had been well on track, it was the turn of military modernisation to be given added impetus. By 2015 or thereabout, the modernisation and restructuring process at the tactical and operational levels was well on its way across the all echelons of the PLA. Since then the PLA has continued with upgrade of its equipment profile and corresponding re-configuration of its field forces. This has been a continuous endeavour.

As a natural corollary to the previous parts of the military modernisation process, the People's Republic of China (PRC) – the Communist Party of China (CPC) to be precise - formally switched over in late 2015- early 2016 to implement its final part. In definite terms, this part of China's apex level military reforms and restructure involved integration of the PLA General Headquarters (GHQ) into the structure of its highest political-military decision making as well as command and control body, viz, the CMC, and corresponding restructuring of its Regional Commands into Joint Theatre Commands. This stage also witnessed a surge in the PLA's investments on development of the various components of Information Warfare (IW) including intelligence, surveillance and reconnaissance (ISR), unmanned weapons systems, space and cyber operations, and the latest digital tools for the military's systemic enhancements like Power Algorithms and Artificial Intelligence (AI).

During the following two years 2016-18, this part continued to implement reforms and restructure in China's apex level national defence organisation consisting of the PLA General Headquarters (GHQ) and the Central Military Commission (CMC). Following up, the period 2018-20 of China's military modernisation had been devoted to the following goals:-

One, consolidation and efficient management of the PLA's vast spread of modernised and restructured military, para-military and defence dedicated establishments; and,

Two, building up a reformed CMC's expertise in exercise of effective command and control over a joint-services PLA and operational training of the PLA's modernised field forces.

Significantly, the process is also meant to establish absolute control of the Party over its military institution in conformity with the core ideology of CPC.

Pushed relentlessly by a select group of hard-line communist autocrats headed by an obdurate Chairman of the CMC, modernisation of the PLA has been China's priority national effort. Slated to be functional by the end of the Year 2020, this integration of apex level defence decision making system and corresponding field training is the final step in China's landmark endeavour to modernise and restructure the PLA from top to bottom. Though by and large both the steps of China's military modernisation and restructure schemes are said to have reached their productive stage, actually the process must be an unremitting one. Indeed, military schemes are never 'complete' in the absolute sense and require continuous readjustments and upgrades besides occasional reorientations.

Accordingly, this Paper endeavours to take stock of the landmarks of the PLA's ongoing modernisation processes during the culminating, and therefore crucial, years of 2018-2020.¹

Theme of the Paper

Nations avoid placing factual defence data in entirety in the open domain, preferring to cover these with over and under-statements. In China's case,

¹ The CPC's stated goal is to 'transform' the PLA into a 'world-class force' by mid-21st Century. Recent official statements indicate that the target of military modernisation has been advanced from the year 2035 to 2027 (centenary of the CPC). Given its sloganeering propensities, such statements are to be sieved through the ruling clique's self-promoting bombast.

her ideals of secrecy, subterfuge and deceit make it even more unfeasible to access factual information. Analytical inputs have therefore to be culled out from usually validated sources – mainly from the United States (US), Taiwan and Russia – and then sieved, moderated with the fundamentals of military and technical evaluation. The end purpose is to relate PLA's modernisation to an insight into its future strategies in employment of military forces. Broad hints of wary-some implications for China's neighbours is implicit.

The Paper is laid out under the following Parts:-

- Part 1: Overview of PLA's Pre-2018 Modernisation;
- Part II: Military Reforms and Modernisation: Enunciation of China's Policy Directives, 2018–20;
- Part III: Progress of PLA's Modernisation Schemes, 2018-20;
- Part IV: Training for Tactical Adaptation to Modernisation;
- Part V: Assessment of the Trends of PLA's Modernisation, 2018-20;
- Part VI: PLA's Foreign Military Relation Initiatives, 2018-20;
- Part VII: PLA in Sino-Indian Context, 2018-20;
- Part VIII: Overall Assessment of PLA's Modernisation and Warworthiness.

To begin with, an overview of the course of the PLA's modernisation programme so far would help in contextualising the CPC's strategic objectives. This aspect has been covered in the following Part of the Paper.

Part I

Overview of PLA's Pre-2018 Modernisation

CPC's Strategic Guidelines

At the outset, it needs to be highlighted that the CPC autarky's considerations over the PLA's modernisation has been a matter of steadfast priority since the time the Communists came to power in 1949 by the means of a 'people's war'. Indeed, when the very edifice of the CPC and the State it governs stands on its military foundation, that priority accorded to the PLA must be understandable.

In the present context, the current roles of the PLA are dictated by the fresh approach to strategic build-up of military power as adopted by the CPC in 1980s. That was the time when the Deng Xiaoping led CMC appreciated that the threat of invasion from Russia existed no more, and that offered opportunities to China to turn to her long cherished hunting grounds.

Thus freed from Russian threat, the PLAs' external roles had been reassigned in terms of:-

One, unification of Taiwan;

Two, recovery of China's self-imagined 'lost territories'. Point to note here is that domineering envelopment of neighbourhood territories is not a recent trigger of real or imaginary ambitions among China's current ruling clique, as many observers suggest. It is just a natural manifestation of a long-seeded hegemonic culture; and,

Three, provision of military security to China's infrastructural development and political consolidation over her outlying peripheral areas. In later years, provision of military security to China's overseas economic ventures has been added to that role of the PLA. Obviously, this role is mandated by the regime's anticipation of troubles that are expected to blow-up in its client nations as its compulsive highhandedness becomes unbearable to the native interests.

Notably, these three roles have since been consistently elaborated in the CPC's landmark Strategic Guidelines issued in 1993, 2004 and 2014, each time with incremental elaborations and increasing emphases. PLA's modernisation and training have ever since been dictated by these successive Strategic Guidelines.2

CPC-PLA Inter-dependence

During this period and since thereafter, the autarky's frequent reiterations of the long-imbibed CPC-PLA inter-dependence points to two fresh developments which have been associated with the PLA's modernisation process:-

² Actually, China's territorial encroachments of today are but the reiteration of the long expected and obvious intent of 'recovering lost territories' along the Indo-Tibet Border. That intent has consistently been made more and more clear since 1950. It was for the Indian policy makers to take notice of such policy promulgations and draw realistic inferences from the CPC's concept of state craft. The usual angst over China's 'surprising' back-stabbing machinations is a rather simplistic cover against India's strategic miscalculations.

One, shift from dominance of professionalism wedded military hierarchy to the one that subscribes to primacy of Party ideology in military management; and,

Two, rise of *corrupt practices among the Party-Military cohorts* in the wake of opportunities for graft in the modernisation schemes.

The political directives therefore enjoin the PLA to promote 'absolute' loyalty to the CPC - its General Secretary really - and 'to eliminate the pernicious influence of the corrupt' among its hierarchy. Indeed, attribution of corruption to ideological intransigence might be directed against those members of PLA-Party's top hierarchy who might have differences with Party's 'core' leadership.

The CPC has been hard on both the aspects of party loyalty and corrupt practices. While there is only little that it can do but tolerate professional merit and innovative aptitude if the military modernisation is to be meaningful, dealing with 'corrupt' – discordant, actually – members of the hierarchy has worked well so far. Simply put, in the coming days, Generals and Admirals wearing the badge of loyalty to the Communist Party boss on their sleeves are more likely to occupy high positions in the PLA, as was the practice in the pre-1990 period. Even then, with the Party's monopoly on power being propped up on its military foundation, it has to balance military professionalism and Party's loyalty among the PLA hierarchy.

Phases of Modernisation

PLA's re-orientation from Mao Zedong's doctrine of 'people's war' to that of 'Local Warfare under conditions of Informationaisation with Chinese Characteristics' was set on course in Deng Xiaoping's time and followed up by his successors, particularly Jiang Zemin (1989–2004), Hu Jintao (2004–2012) and presently Xi Jinping (2013-xx). This doctrine has since been the guiding factor for PLA's modernisation over the decades. Thus PLA's modernisation drive has been duly sustained by strengthening of

China's vast military-industrial complex.³

By the mid-2000s, the PLA's first phase of structural and hardware modernisation at combat unit levels had progressed to a fairly advanced stage. While continuing with that progress in the later part of that period, the PLA had proceeded to the second phase to restructure its field formations, training institutions and logistic installations. This phase was also aimed at adoption of the concept of 'Integrated Joint Warfare' (IJW) under 'Conditions of Informationisation with Chinese Characteristics', to prosecute 'Localised War', in what was termed as the 'New Period'.

This conceptual adaptation was, as indeed it needed to be, institutionalised by upgrade and modernisation of the tactical as well as technical training curricula. The concept of 'Integrated Logistic System' (ILS) was also developed and applied at the unified tri-service level, thus bringing much efficiency in sustenance of remote military deployments. Being continuous processes, consolidation and validation of these schemes continue.

Continuing to the third phase of modernisation and restructure during the late 2000s-mid 2010s, the PLA's charter, structure and geographical areas of responsibilities were redefined at the theatre level. Key initiatives in this phase were the consolidation of 11 Military Regions (MR) into seven Military Area Commands (MAC), conversion of army-intensive formation and area command headquarters into joint tri-services composition, and formalisation of distinct air force, naval and rocket force hierarchies. Besides, selective re-organisation of field formations from regimental/ divisional to brigade configuration and integration of single-service Group Armies into joint-services 'Combined Corps' was also implemented. This phase also saw most of the PLA's commercial ventures being transferred to other departments and reassignment of about four lakh of its humungous quasi-military manpower to the police and various other civil sectors.

Notably, build-up of military industry had been prioritised in the aftermath of the Opium Wars in mid-19th Century during Empress Dowager Cixi's reign, but with nominal success.

Thrust on Military and Technical Training

During this entire period, the PLA, with due military foresight, opted to devote major efforts in upgrading the levels of technical education and military training among its officers, non-commissioned officers and privates. It also assigned selected officers to explore the principles of modern battle procedures and so qualify in service-specific roles in combined arms as well as joint inter-services environments. At this stage, the dearth of trained and experienced joint warfare trained commanders and staff in field formation headquarters was answered by the creation of a central 'War Zone Command' which could be implanted, when needed, on any warring MAC to take over the conduct of IJW. Thus commenced the preparation and conditioning of higher commanders and staff of the 'New Period' PLA to attend to the operational imperatives of modern era joint warfare.

Restructure of Theatre Commands, 2016-18

In late 2015, restructure of the seven ground forces intensive MACs into five joint-services 'Theatre Commands' was promulgated. Notably, while subscribing to the exercise of higher command and control through joint headquarters, the executive organs under the Joint Command Headquarters were retained in single Service, single branch configuration, with provision for cross-postings as necessary - as indeed it must be in the interest of nurturing domain skill and experience. With restructures at the regiment/brigade and Group Army/Combined Corps levels already well underway, that was the final step in the three decade long restructure and modernisation of the PLA at the tactical and operational levels.

Reform of the CMC, 2016-18

In end-2015, the office of the General Secretary of the CPC (or just the 'Party')-cum-Chairman of the CMC promulgated a formal executive

order in the form of 'Guidelines on National Defence and Military Reforms'. Thus the implementation of the final phase of restructure, that of subsuming the PLA's apex military headquarters - the PLA GHQ - into the CMC, was taken up. To wit, integration of the topmost military command organisation with the nation's highest political-military decision-making body was to conform to the Party's unequivocal supremacy as well as its intrinsic military bearings. More importantly, the reformed CMC is an integrated political-military decision-making structure that conforms to the primary requirement of prosecuting modern warfare. That indeed had been the Party-PLA's objective as enunciated in the PLA's seminal doctrinal declaration titled, 'Grand Mobilisation, Liberation and Thorough Clean-up of Military Ideology'.

Actually, since 2011, much before it was formally restructured in 2015-16, the PLA GHQ had been functioning with various 'transitional work offices' and role based 'cells' attached to it. The purpose of these attachments had been to perform according to their envisaged charter of duties and the proposed rules of conduct in the finally restructured CMC. That arrangement helped in negotiating the hurdles and discrepancies in implementing the reform, restructure and modernisation schemes and to smoothen the GHQ's gradual transition to its expanded roles within the final structure of the CMC. Even then, to retain organisational control and balance, the change-over was given time till 2020, for the PLA GHQ to assimilate into what is described as a 'seamless system in which the CMC takes charge of the overall administration of the PLA, the People's Armed Police Force (PAPF), People's Militia and the Reserve Forces, Battle Zone (or Theatre) Commands focus on combat preparedness, and various military services pursue development'. The reform and restructure also aimed at right-sizing of the PLA's bloated manpower from 2.3 million to 2 million, that, besides sharpening the military punch, would also facilitate fiscal provisions for PLA's current and future modernisation schemes.

The reformed structure of PLA's apex level management is now a one-tier configuration which encompasses all aspects of military expertise, Party control, defence science and technology, defence industry, military diplomacy and military discipline - all to be directly controlled by the CMC. The four Departments of the erstwhile PLA GHQ are now subsumed into the CMC which is made up of seven 'Departments', three 'Commissions' and five 'Offices'.⁴

Comments: Apex Level Reforms, 2016-18

Reform of the CMC and the Theatre Command Headquarters have been very deliberate, widely consulted, debated and experimented process spread over many years. But when it comes to implementation of the decisions arrived at, the PRC scores above all other nations, thanks to a system defined by single minded decision making which bars any kind of autonomous scrutiny. From structural point of view, therefore, it would be right to conclude that the *PLA's higher level decision making and command apparatus should by and large be on the saddle by the stated timeline of 2020*.

On the matter of exercise of military command and staff work, however, the assessment has to be more pragmatic. *Professional understanding edicts that it is one thing to restructure hierarchies, but it is another ball game altogether, a tedious and yet nebulous one at that, when it comes to the orchestration of these in successful prosecution of military operations in the battlefields.*

Indeed, it takes years, even decades to tune up operational level military headquarters with revised battle procedures and organisational practices, the main challenge being in the matter of educational qualification, military training, field experience, professional acumen and innovation among the commanders and staff at all levels of the hierarchy. For a military

⁴ For a comprehensive insight into PLA's Modernisation and CMC Reforms please refer to: 'Consecration of China's 'New Period' People's Liberation Army', VIF Publication, 'Strategic Discourse on the People's Republic of China', Pentagon Press, New Delhi, 2017.

organisation short in operational experience and bound by the current regime's rediscovered priority of 'Party loyalty', that challenge becomes further accentuated. No doubt, by putting good numbers to institutional training within and outside China, the PLA spares no effort to raise the professional competency of its personnel. But even then it would be some years before the lot of well-trained military professionals get hold of the reins of operational decision-making under conditions of modern war.

The above discussed process of PLA's reform and modernisation sets the stage for delving into the subject of this Paper, that is, analyses of the Course of China's Military reforms and modernisation during the period 2018-2020.

Part II

Military Reforms and Modernisation: Enunciation of China's Policy Directives, 2018 – 20

Scope of Discussion

Having had an overview of the state of the PLA's modernisation in 2018, the stage is set to take account of the major political directives as enunciated by Chinese regime during the period 2018-20. These directives are relevant to the appraisal of the PLA's modernisation processes during the course of these three years.

Promulgation of Political Directives during 2018-20

At the beginning of 2018, the ensuing charter of the PLA was reiterated by China's all-powerful 'core' leader, President Xi Jinping, when he exhorted it to remain committed to its unwavering loyalty to the 'Party'. Once again, in November 2018, during a round of post-restructure inspection of the Southern Theatre Command the President reiterated the CPC's 'absolute leadership over the military'. Significantly, he also directed the PLA to arm itself with 'Thought on Socialism with Chinese Characteristics for a New Era'. In the same vein, he referred to the 'Party's Thought on Building a Strong Military'. Obviously, this call inter alia implies loyalty to the ruling autarchy headed by himself.

One of the keystones of the Party's exercise of absolute control over the PLA is its role of protecting China's economic outreach and huge investments in home and abroad, economic well-being being viewed as the key factor in the CPC's retention of Chinese people's approval of the regime.

During the past three years, the President's focus has been on the PLA's ongoing modernisation which was slated is to be largely achieved by the end of the 2020s. Thus, as he directed during his inaugural visit to the Headquarters Central Theatre Command in February 2018, the PLA was to focus on full range of modernisation through training on 'command system application, military strategy, combat fitness and techniques, with goals to improve overall combat capability based on network information technologies and digitised systems'. Herein, the charter of the PLA was further specified as:-

- Strengthening digitised warfare research and databases;
- 'Creative execution' of military doctrines;
- Harness of technologies, scientific education among troops to 'unleash their full potential'; and,
- d. Exploration of more options 'to build an elite and inventive fighting force that uses digital technologies to transform its technological edge into combat advantages'.



19th CPC 5th Plenary session (s.chinadailyhk.com)

In the same vein, the CMC emphasised upon the salience of military-technical training in fostering meaningful military modernisation. At the beginning of the annual training year in April 2018, it directed that in the ensuing training years all effort be put into 'combat readiness training, with stronger emphasis on realistic combat training, high quality military talent for digitised warfare, thus further increasing the military's ability to win'.

It is of note that the CMC has recently promulgated a fresh 'Regulations on Management of Military Establishment & Organisational Structure', with the purpose of spelling out the PLA's 'new responsibilities, accountability and supervision'. In March 2020, these new Regulations were applied on trial basis.

Policy Framework for the 2018-20 Phase of China's Military Modernisation

In consequence of the political directives enunciated above, pronouncement of notable policy frameworks to regulate developments in the PLA during the period 2018-20 are discussed under three distinct tiers, viz:-

- a. CMC'S directives;
- b. PLA's Conceptual Promulgations;
- c. Tuning Concepts with Practices, 2018-20.

CMC's Directives (formally termed as 'Guidelines')

Party-PLA Bondage. In September 2018, the CMC promulgated its guidelines to strengthen the Party-Military bondage in the 'New Era'. This document emphasised the Party's lead role as imperative to development of a new era PLA, and that all efforts be made for its new structure to strengthen the Party's comprehensive and effective control over the nation's military matters. The document went on to state that while

military modernisation was a Party responsibility, it was for the military to focus on war preparedness and enhancement of its combat capability.

PLA's Technical Transformation. In the same month, political thrust on building of a modern, scientifically oriented and innovative military, devoted to 'Marxist military theories' under the 'absolute and unwavering leadership of the CPC' was emphasised through another formal missive by the Chairman of the CMC. Importance of institutionalising hightechnology military research facilities to act as the spearhead on the road to military transformation, and building a strong, 'combat oriented' PLA, under the 'guidance of the CPC' of course, was also stressed. Furthermore, the Chairman, addressing the PLA Academy of Military Science, enjoined the scientists to integrate military research and domestic industry with the objective of integration of civil and military industries.

Civil-Military Integration. A remarkable development during 2018-20 has been the quick-time coming of age of the 'Central Commission for Integrated Military and Civilian Development'. Founded in 2017 as a dedicated body to integrate common-purpose civil-military development schemes, the Commission is headed by the President himself. Presiding over the Commission's Second Session in October 2018, the President enunciated his policy of fostering deeper 'civil-military integration' through coordinated innovations in science and technology and regular upgrade of indigenously manufactured military hardware. Two significant policy decisions in this regard has been to achieve higher defence industrialisation by strengthening private enterprise and adaptation to public-private partnerships. Mechanism for closer coordination between the Partyowned PLA and the Ministry of National Defence (MND)-controlled 'State Administration of Science, Technology and Industry for National Defence', which oversees China's defence industries, was also activated.

Development of Modern Military Arsenal. Playing to its new role during the period, the restructured CMC has given added impetus to the development of latest military hardware - battle tanks, rail guns, new aircraft carriers with electro-magnetic catapult, guided missile destroyers, stealth bombers, fifth generation fighter jets, etc., just to name a few. Besides such kinetic weaponry, available inputs indicate that the PLA Strategic Support Force (PLASSF) continues to make concerted efforts to further elevate its information, cyber (including cyber hacking) and space warfare capabilities. These tools of non-contact warfare are being seen as possible 'equalisers' against deployment of America's overwhelmingly superior military might in China's eastern flank.

Domination and Control over the China Seas. During the past three years of military modernisation, the CMC has continued to accord *high priority to domination over the South and East China Seas* – the Taiwan and the Sea of Japan region. Accordingly, the PLA Navy (PLAN) and the PLA Air Force (PLAAF) have been tasked with exercising what is termed as 'routine control' by regular sailing and flying combat sorties over these waters and the islands therein. Enforcement of the East China Sea Air Defence Identification Zone (ADIZ) has also been an objective with the purpose of consolidating China's control over that region in defiance of the rest of the international stake holders backed up by strong US military presence.



PLAN Exercise East of Taiwan (china military online)

Re-structural Readjustment? In January 2020, there were reports of the CMC considering another restructure of the five theatre commands created in 2016 into seven, viz., Eastern, Southern, South-Western, North Western, Northern, Central Plains and Central China Theatre Commands. The current theatre of the Western Command could then be split between Xinjiang and Tibet.

PLA's Policy Promulgations, 2018-20

Policies on Roles and Tasks. In reiteration of the roles assigned to the PLA, its key commitments during the period 2018-20 have been enunciated as follows:-

- The 4th (2019) and 5th (2020) Plenums of the 19th CPC have emphasised upon the Party's 'absolute' leadership over the PLA.
- b. Addressing the PLA's Academy of Military Sciences, the Chairman of the CMC has enjoined the PLA to turn into a 'major force in world peace'. The obvious context is the security of China-Pakistan Economic Corridor (CPEC) and China's expanding overseas assets, besides consolidation of Chinese control over East Turkestan, Tibet, Gilgit-Baltistan and the Western Pacific-China Seas.
- c. PLA's commitment to achievement of full-spectrum warfare capability has been reiterated by the Chairman CMC-cum-Party General Secretary's endorsement of the idea of 'localised warfare under the conditions of informationisation with Chinese characteristics'. Steady development of the PLA's IW, unmanned weapon systems, and space domination assets, as well as cyber operations capabilities have also been emphasised.
- d. In consequence of its expanded role from 'near-seas defence' to 'near-seas defence and far-seas protection', the PLAN has been

directed to 'broaden its horizon' in the Arabian Sea. To that end, the PLAN has been called upon to exploit its experience of one decade of escort missions around the Gulf of Aden-Somalia Coast, as well as establishment of a new base in Djibouti. Intent to increase the deployment of warships in the Indian Ocean has also been declared. Corresponding directions have been applied to the PLAAF too.

- e. PLA's Southern Theatre Command has been tasked to contest United States (US) warships from carrying out Freedom of Navigation Operations (FNOPS) in what is claimed to be Chinese waters of the South China Sea (SCS).
- f. The CMC has been regular in boosting of its goal to train 'super soldiers' who, equipped with futuristic weapons, would be expected to deal with '10 opponents'.
- g. In 2020, in a formal announcement of tactical significance, it has been stated that 'combined arms battalions' would be the basic combat unit of the PLA.
- h. On the matter of nuclear doctrine, the CMC has justified China's nuclear arsenal as a 'key determinant for self-defence, counterterrorism, sovereignty and integrity of the people'. Conversely, it has gone on to condemn nuclearisation of South Asia terming it as a 'potential for instability'.
- i. Having been given the role of building relationships with foreign militaries, PLA has continued with its military diplomacy to create favourable constituencies among its many business partners. As usual, joint exercises, training of personnel and supply of certain weapons and equipment, besides making common cause in strategic matters have been used during the period as the handles for that purpose.

PLA's Operational Transition. In accordance with the roles defined, the PLA has adopted the following notable transitional steps:-

- Both the services, PLAN and PLAAF, have been updating their combat concepts, search capabilities, location and engagement of targets at the limits of weapons performance, and execution of multi-service air defence. Battle procedures and drills to perform rapid manoeuvre of forces and deployment of activate air defence systems at short, medium and long ranges at low, medium, and high-altitudes are also being developed and honed.
- b. Extensive use of information technology in all such endeavours has also been reported. PLA's obvious goal is to achieve air defence, if not air dominance, till as far as China's western extremities of interests, that is, the arcs covering Indo-Pacific-East Turkestan-Western Pacific regions.
- c. Transition of the PLAN for it to be effective up to what China defines as the 'Second Island Chain' (line of Japan-Guam-Papua New Guyana), has seen brisk acceleration during the period in question. And so has the PLAAF's transition from territorial air defense to both offensive and defensive operations at longer ranges. It is assessed that their capabilities for short to medium range strategic early warning, sea-borne, air-borne and missile attacks, information warfare, strategic force projection and integrated logistics are improved considerably.

Tuning Policies with Practices

Management of Manpower

In compliance of the programme begun in 2016 to reduce PLA's manpower by 300,000 personnel, Premier Li Keqiang announced in September 2018 that the task had been completed. The reduction had been aimed at cutting-out the fattened low-skill, non-combatant sections of PLA Army's manpower in favour of skilled professionals in the other two services. To that end, the CMC has enunciated a policy of organising fresh recruitment of qualified candidates twice a year based on academic sessions.

Further, the CMC has directed the PLA Ground Forces (PLAA), the PLAN and the PLAAF to optimise the bloated establishments of five million reservists in their Reserve Forces.

Matters of Military Management

With an announcement in November 2018, the PLA affirmed that the system of military policy-making and its institutional functions were being made compatible to the tenets of the 'New Era'. It went on to explain to its officers and men that the system of the nation's military management would facilitate re-organisation, command and control, and jointness at the political-military as well as inter-services levels. It further stated that the reforms had been preceded by professional consultations in which 60,000 personnel had participated.

As for the defence budgetary support, a lower escalation of the defence budget (from 7.5 percent increase to 6.6 percent in 2020-21) was clarified to state that it would bring 'more value for money' – the hint was at savings from the cut in manpower establishment as well as expected increase in organisational productivity. The upwards graph of defence spending is likely to continue hereafter.

Focus on Scientific Grounding

Adopting a farsighted perspective, the PLA has undertaken to strengthen the foundations of its soldiery's combat proficiency through elaborate curricula of formal science education for its officers and men, an aspect which had been lagging earlier. This curricula continues through a dual approach: One, putting large numbers of serving officers and men having requisite potential through formal education in the PLA Universities; and two, by recruiting technically qualified candidates.

Goals of Military Training

The PLA's intent during this period has been on harnessing the full range of tactical and technical capabilities of its modern military hardware through rigorous training schedules at individual and collective levels. Notably, much emphasis has been laid on innovative use of the hardware characteristics. Thus, following due theoretical and simulation training exercises during the preceding years, selected modernised and restructured units and formations have been put through their paces in various field exercises conducted on ground, sea and air ranges from June-July 2018 onwards.



Zibo Military Training Institute (zbvc.cdu.cn)

Fostering Inter-Services Jointness

In adapting to the PLA's 'New Era' strategic concepts with 'Chinese Characteristics', all of the recently restructured Theatre Command Headquarters have began functioning in joint services environment. These headquarters have been subject to confirmation trials and test-exercises during the period 2018-20 with the purpose of fine-tuning their battle and staff procedures and the corresponding command and control hierarchies.

Significantly, for the first time ever, an officer who was not from the Ground Forces (an Air Force Officer) was appointed to command a joint services Theatre Command (the Central Theatre Command). Politically the most significant, this Command is responsible for the security of Beijing, besides providing operational reserves and logistic support to other commands.

At the tactical level, battle formations of all the three Services, which had more or less been modernised in line with the final blue-print of organisations and equipment, were put through their paces through field exercises conducted under the respective Command Headquarters. Herein, the most significant development was the extent of personal supervision that the nation's President-cum-Commander-in-Chief has devoted to inspecting all the Command Headquarters and many of the modernised formations.

Features of Naval Modernisation and Expansion

PLA Navy's force expansion is being met through reassignment of manpower from its Ground Forces and prioritised ship and naval armament production, duly supported with higher budgetary allocations. During 2018-20, build-up of aviation divisions and marine brigades at the scale of one formation for each of the three PLAN Fleets has continued at brisk pace. Acquisition of a chain of dual purpose maritime bases in the Bay of Bengal and the Arabian Sea – Myanmar, Sri Lanka, Maldives, Gwadar-Jiwani and Djibouti – is another sub-set of the overall build-up of a modernised PLAN and establishing its domination over the entire Indian Ocean-Pacific Region.

To that end, in later 2019, a formal intent was announced over commissioning of a third aircraft carrier by 2025 and a fourth one by 2030. During the period under consideration, besides continuing with the programmed ship building, the PLAN has sponsored development and trials of smaller (mini) destroyers as well as miniature unmanned (robotic) high speed sea vessels under the aegis of the China Shipbuilding Industry Corporation (CSIC). Use of high-speed swarming tactics has also been spoken of. The latter is purportedly meant for launching 'swarming attacks' to overwhelm formidable sea-surface targets.

Features of Air Force Modernisation and Expansion

Long range force projection, maritime air operations, capabilities to operate in high-altitude plateau region are the final objectives of expansion and modernisation of the PLA Air Force. Towards that end, the thrust during these years has been on development of offensive air weapons - fighters, bombers, transporters - and most significantly, unmanned aircrafts (Unmanned Aerial Vehicles or UAV).

PLAAF already possesses loitering munitions like the CH-901, which can cruise over the target area to help fix a target and diving to destroy it on command. A laser-based targeting system had been introduced in November 2014 to destroy small drones or aircrafts upto 1.9 km range, 500m altitude and speeds of up to 180 km/h. In June 2018, the PLA reiterated its focus on tactical integration of various types of PLAAF unmanned aircraft and PLAN sea vessels in order to upgrade its surveillance, reconnaissance and communication capabilities. It is also obvious that in times to come, these assets would be upgraded to execute electronic and kinetic warfare targeting as well as certain logistic functions for its deployed joint forces. Swarming attacks on adversary's war assets with help of miniature drones is also under experimentation.

Features of the Desired Full Spectrum Warfare Capability

PLA's purpose of gaining competency in conduct of full spectrum warfare capability under the conditions of 'informationisation with Chinese characteristics' has continued during the years 2018-20. Thus besides the aspects mentioned above, consolidation, short of bulk build-up, of rocket and missile forces under the PLA Rocket Force (PLARF) has been underway.

At the same time, consolidation of IW capability, unmanned weapons systems, space assets and cyber operations under the reorganised PLASSF has continued according to a term plan spread over the coming years. Further, the notion of taking recourse to 'Three Warfares' – partisan interpretation of international laws and norms, targeting adversaries with psyche sapping casts and media subterfuge – to justify China's so called 'counter-attack in self-defence' has been well articulated during this period.

Taking the discussion further, details of implementation of the conceptual orientations as discussed above are elaborated in the following Part.

Part III

Progress of PLA's Modernisation Schemes, 2018-20

Scope of Discussion

Reports of progresses made by the PLA are of considerable concern among the nations of region. Accordingly, studied combination of the PLA's conceptual ideals of modernisation vis-a-vis actual implementation of these in equipping and training field formations must form the basis on which the build-up of PLA into a global force may be assessed. However, since many of these reports emanate from China, rhetorical packaging of these with the usual communist bombast must be expected. Even expert analyses of formal as well as informal information on the PLA's professional assimilation of the modernisation schemes are, as expected, subject to variations on account of the observer's preconceptions. Therefore, analytic moderation of the open source information with due professional understanding is necessary to adjudge the actual progress as well as the possible shortfalls.

This Part lists out the apparent instances of progress achieved by China in fruition of her military modernisation schemes. The subject matter is discussed under Structural, Technological and Equipment, and Logistic orientations.

Progress on Structural Modernisation, 2018-20

The Infantry Battalion. In a highly significant development in the context of India and China's other land neighbours, the PLA has accelerated modernisation of its standard infantry battalions by converting these into an all-arm configuration. Thus while more or less retaining the battalion's troop strength, a number of combat support elements have been integrated at the battalion level itself. This is an immense improvement in battle capabilities of the PLA's basic unit of combat, which unless countered with compatible restructure and tactical procedures would force any adversary into serious disadvantages in the battlefield.



Infantry Training (eng.chinamil.com.cn)

The Marine Force. The resolve to build an 'elite maritime force' that is geared-up to accomplish various missions 'assigned by the Party' has manifested, through an announcement in March 2018, of raising of two marine brigades to operate along the Makran Coast of the Arabian Sea. Subsequently in March 2020, a scheme for expansion of the Marine Corps to a strength of 1.9 lakh and merger of miscellaneous amphibian forces into it has been reiterated.

Information Warfare (IW). In continuation of the PLA's thrust on acquiring profound IW capabilities, cyber warfare cells have been added to the theatre command headquarters. Accordingly during the period in

focus, the 35,000 strong PLA-civil cyber hacking establishment has been expanded, reportedly to 60,000.

Internal Security. For deployment on internal security duties in the Xinjiang Autonomous Region, a new counter-terrorism force has been raised for the PAPF in August 2019.

Reorganisation of Commands. Finally, in a key development on structural reforms, the ongoing reorganisation since 2016 of the Western and Central Theatre Commands was reportedly completed in June 2020 while other Theatre Commands were likely to follow suit.

Progress on Technological and Equipment Modernisation

Through the period under review, The Chairman of the CMC has devoted much time on applauding the indigenously produced military hardware. In November 2018, he evinced keen interest on inspecting China's latest generation main battle tank, the Type-99A, the aircraft carrier Liaoning, Hongjian-10 missile carrier, Shenyang J-11 multi-role Fighter aircraft, the-J 20 stealth Fighter etc., hailing these as 'lords of battle'. Details are as listed under relevant headings.

Build-up of Ground Weaponry. Significant developments during the period in discussion are:-

- a. In an effort to optimise the utility of its battle assets, The PLAA has undertaken a programme to modernise its old howitzers through upgrade and refit and to provide added protection to its light tanks. Both the weapons play key roles in operations in hilly and plateau areas.
- b. Induction of recently developed self-propelled anti-aircraft guns, drones and cruise missiles was announced in April 2019. Subsequently, introduction of an advanced model of rifle, meant

to turn soldiers into 'super soldiers' was also announced.

Build-up of Naval Capability. Notable progress on Naval modernisation schemes are listed under:-

- a. In the Presidential Review of a massive naval force in the SCS in April 2018, it was averred that with its 'brand new' image the Chinese Navy has 'stood up in the East' the reference is notable by China's arbitrary usurpation of the China Sea islands. The Review saw a deployment of 48 vessels and 76 aircraft including a 'new type' of submarine as well as the PLAN's aircraft-carrier 'Liaoning'. It was stated that nearly half of the hardware displayed in the Review were commissioned in the wake of the 2012 decision adopted by the 18th CPC National Congress.
- b. In November 2018, PLA Navy commenced work on its third aircraft carrier that, in time, would complete the force structures of its North, East and South Fleets. Notably, a nuclear powered ice-breaker ship was also launched; this experience would be utilised in the making of China's first nuclear aircraft carrier.
- c. While the PLAN continues to gain experience with its sole aircraft carrier 'Liaoning' through sea trials and operation of carrier borne fighter aircrafts, the second one, the first indigenously developed Type-001A ex-Dalian Shipyard of Liaoning Province, was put to sea trials in October 2019.
- d. Modification of SU-30 Fighter Aircraft fire control system for deployment on aircraft carrier ships has been carried out.
- e. The second aircraft carrier Type 001A was put to trials on landing and take-off procedure. Subsequently, in mid-2019, its eighth sea trials was conducted with J-15 and J-31 Fighter aircrafts on board. In December 2019, the PLAN conducted training of officers on

- carrier based sailing and aircraft operations.
- Type 093 nuclear submarine was on display during the 70th Anniversary Show at Qingdao in April 2019.
- In Aug 2019, an unmanned warship 'JARI', of 15-20 m displacement, ex-China Shipbuilding Industry Corporation, was launched.
- h. Two more 052 guided missile destroyers are to be built to add to the seven numbers already commissioned. That would add to the total inventory of 20.
- Following up, a mini-destroyer of Aegis Class with radar and missiles for air defence and anti-submarine capabilities was launched. China's first amphibian assault ship was also launched.
- j. Under the modification and upgrade schemes for in-service ships, the 10th Domestic Shield Destroyer (extended version of 05D Type) with extension of deck for helicopter operations was completed.
- One Type 055 Destroyer was commissioned in January 2020.
- Plan to develop electro-magnetic weaponry for the PLAN was announced.
- m. China's recently developed amphibious transport aircraft AG-600 'Kunlong' made its first water take-off and landing at Jingmen, Hubei Province. Made by the Aviation Industries Corporation of China (AVIC), the Kunlong with its maximum take-off weight of 53.5 tonnes is the world's largest amphibious aircraft.
- The period also saw continued build-up of PLAN's Marine Force to its eventual shape of eight to ten Marine Brigades for its three

- fleets. In March 2019, a mixed brigade of 10,000 Marines was put through manoeuvres in the Arabian Sea.
- o. PLAN decommissioned two of its landing ships and the first generation (30 years old) guided missile destroyers in July and September 2020 respectively. That is a significant process of modernised substitution.



PLAN Manoeuvres in South China Sea (chinadaily.com.cn)

Build-up of Air Capability. Notable progress made on PLAAF modernisation schemes are as follows:-

- a. Following the PLA's road map for 'air force build-up in three steps', production of indigenous long range fighter, fighter-bomber, bomber, stealth and transport aircraft has picked up pace during the period 2018-20. The programme consists of induction, training and air exercises with J-10A and J-10C Fighters, J-7A Fighter-Bombers, J-20 stealth Fighter, H-6 long range Bombers and Y-9 Transport aircraft, to add to the inventory of Su-35 Fighters and IL-76 Transporters.
- b. China's *Global Times* has been reporting on the rapid expansion of the PLAAF, as seen by its '20-Series' development consisting of new J-20 stealth aircraft, Y-20 heavy transport plane, Z-20 multi-

- utility helicopter and H-20 stealth bomber.
- c. The PLAAF has added to its Aerial Early Warning (AEW) fleet by introducing the new KJ-500 and KJ-2000, built at Shaanxi.
- d. During the National Day Military Parade in Oct 2019 on the 70th Anniversary of the founding of the PRC, the PLAAF unveiled its 4.5 new generation aircrafts as well as the J-10B /C Fighter jet, J-16 multirole Fighter and the H-6K & N Bombers. Thus by commissioning indigenous aircrafts one after another, the PLAAF is forming-up an integrated force structure based on third generation aircraft topped-up with fourth-generation varieties.
- e. Indigenous development of the medium lift utility helicopter Z-20 was declassified. It is claimed to be the world's best, and suitable for Plateau operations. China has also joined Russia in development of a heavy helicopter.
- f. After the J-20 Fighter aircraft, indigenous J-11B aircraft was equipped with PL-15 air-to-air missiles. J-16 and J-10C Fighters were stated to be comparable to other modern combat aircrafts.
- g. J-17 and FC-31 Fighter aircrafts were upgraded. The AVIC is to develop nine types of aircrafts (unspecified) of which one has been produced and four are on flight test stage.
- h. Plans are being made to arm HK-6 Bomber aircraft with hypersonic weaponry.
- Stealth Jet programme is in progress. China is looking at production of a 6th Generation Fighter J-40 (?).
- j. A new J-20 Fighter Squadron was commissioned in October 2019.

- k. 'Hunter Drones' to catch low flying drones with nets and other 'Suicide Drones' are slated to have been developed. According to *China Military Online*, these are to be used to deliver explosives, ammunition and other items to composite attack groups during assault breaching of obstacles.
- Pace of raising Ground Air Defence Forces, consisting of antiaircraft artillery and ground-to-air missiles, have reportedly been accelerated. Indigenous air-to-air HQ-9B and HQ-22 missiles have been commissioned.
- m. One PLAAF air brigade of the Western Theatre Command located at Chongqing was upgraded to '3-plus' generation this generation is stated to be the second best in capabilities after the latest J-20 aircraft.
- n. November 2020 saw the induction of more J-16 aircrafts into the PLAAF.
- o. Batch production of improved version of J-11B and range and radar upgrades of heavy fighter aircrafts by the AVIC was reported in December 2020.



PLAF Drill (globaltimes.cn)

Unmanned Aerial and Sea Vehicles (UAV, USV). To simulate swarm tactics, the PLA has so far used small numbers of drones. Using artificial intelligence and high-end technology, these low-cost drones may assist in coordination of operations. PLA's focus on employment of UAV, USV is reflected by the following events:-

- At the Global Fortune Forum in Guangzhou in December 2017, PLA flew a swarm of 1,108 drones. Later, during the Pyeongchang Winter Olympics, a pre-programmed swarm of 1,218 quad-copter drones was displayed.
- b. Launch of swarm drones in military mode has been tested from ground vehicles and helicopters. In 2018, a LW-30 laser beam weapon system capable of destroying drones and small aircraft was developed. 'Silent Hunter', a drone based air defence system against small targets was also displayed at the KADEX 2018 in Kazakhstan.
- c. In the context of the PLA's focus on tactical employment of UAVs and USVs, a technology demonstration test was staged in 2018-19 by a manufacturer based in Zhuhai, Guangdong Province, in the Wanshan Marine Test Field in the SCS.
- d. Later, a new generation long distance reconnaissance-strike UAV, 'Wing Loong II', developed by Chengdu Aircraft Design & Research Institute (CADI) of the Aviation Industry Corporation of China (AVIC) was also put to test.
- e. To boost the PLA's long distance 'swarming' reach, 56 small USVs were deployed in the sea for military worthiness test during 2019-20.

Build-up of Rocket and Missile Forces. Notable developments in PLASSF are:-

- a. Designed by the China Academy of Aerospace Aerodynamics under the China Aerospace Science and Technology Corporation, the Xingkong-2 scram jet high velocity system was successfully tested at a target range in Northwest China in August 2018. It is still in the trial phase and more tests should be expected.
- Cluster of 'aircraft carrier and radar killer' missiles was showcased in June 2019 alongside launch of off-shore rockets and large cargo drones.
- c. China's hypersonic missile DF-17, a boost glide vehicle, was first revealed at the National Day military parade on October 1, 2019. *China Military Online* and the *Global Times* have indicated that this missile may not be the only hypersonic missile in the Chinese stable.

Strategic Support Forces. Notable developments during 2018-20 were:-

- a. Bei Dou system of real-time transmission of deep sea data was developed, and the Bei Dou Satellite Navigation System was launched.
- b. Two satellites on KZ1A rocket were launched in September 2019, followed by launch of a new remote sensing satellite in March 2020.
- c. The Chinese Academy of Sciences has developed an underground 'Great Wall' of steel (tunnel doors) to protect PLARF weapons stored in mountain caves against attack by strategic weapons including the hypersonic ones.

d. In continuation of the PLA's thrust on acquiring IW capabilities, cyber warfare cells have been added to the theatre command headquarters in 2018. The 35,000 personnel PLA-civil cyber hacking establishment has thus been expanded, reportedly to 50,000.

Progress on Logistic Modernisation

The PLA logistic system has ever been a high priority element in China's national logistics development programme. Thus in consonance with the Strategic Directives as mandated from time to time at the national level, the PLA logistics has been developing autonomously. In the 2000s, the system was formally adapted to China's comprehensive military modernisation schemes. That resulted in formalisation of the presently operative 'Unified Joint Services Logistics System'. Under that mother system, 'Joint Battle Zone Logistics Support Systems' are integrated with regional and local civilian supply chains to operate in theatre and situation specific conditions.

During 2018-20, operation of the optimised logistic system has settled in. It is a flexible system which keeps up with fresh infrastructural developments to provide for cost-efficient logistics for the forces in their deployment areas. PLA's recent deployments in the tense and sensitive sectors of the SCS as well its massive build-up of forces along the remote and difficult belt of the Indo-Tibet Border have tested the efficacy of the Joint Battle Zone Logistics Support System.

Having overviewed the progress of various modernisation schemes, the next step would be to see as to how these schemes are being organisationally assimilated by the PLA and adapted to the execution of operational tasks.

Part IV

Training for Tactical Adaptation to Modernisation

This Part delves into the training measures adopted by the PLA during the period 2018-20 to adapt and validate its set objectives of modernisation.

Developments on Military Training

Conforming to PRC's military objectives, the notable training related developments during the years in question are listed as under:-

- a. February 2019: President Xi Jinping released a new 'Regulations on Military Training'.
- b. Fresh Training Plan for the PLA was issued in January 2020, with emphasis on integrated combat and force-on-force training exercises.
- c. Work Plan for National Defence Education was finalised after wide ranging consultations with universities, social organisations, public representatives and management authorities in selected cities.
- d. In October 2020, the following decisions related to operationalization of PLA's training were promulgated:-

- A 'Vision or 'Pragmatic Targets, 2035' was adopted at the 5th Plenary Session of the 19th Central Committee of the CPC with its 198 Primary and 165 Alternate Members in attendance. The 14th 5-Year Plan (2021-2025), inclusive of defence, was also promulgated, with Xi Jinping referred to as the "Core Navigator and Helmsman".
- The CPC's intent to amend China's Law on National Defence (1997) was reported by the Global Times. The idea is to include upgrade and modernisation of the defence forces against possible threats to China's security, governance, and global interests.

Formation Level Exercises

During the period 2018-20, assimilation of PLA's modernisation into the field formations has been exercised selectively up to the combinedarm battalion and brigade levels. But, conduct of division, group army or combined corps level collective training exercises have not been reported so far. Such step wise approach to operational training, starting from basic units of combat and gradually raising the level to larger battle formations is a standard practice in all militaries. That also indicates that for some years after 2020, the PLA's battle formations would not have been well tested against their designated operational capabilities.



Joint Amphibious Exercise (emg.chinamil.com.cn)

Notable formation level field exercises conducted during the period in question are listed as follows:-

- a. In early 2018, the PLA organised a series of combat drills and field training exercises to integrate the restructured all-arm formations with their modernised weaponry and equipment inventory. These exercises were conducted in three areas, in the Northern Tibetan Plateau, at the *Zhurihe Central Combined Tactical Training Base* in Inner Mongolia Autonomous Region and the Eastern Coast of Dongshan-Hainan. In a tactical assimilation exercise held at the Zhurihe Ranges in July 2018, the outcome of was reportedly rather disappointing, the basic reason being identified as 'obsolete ways of tactical thinking'. The lessons had been learned.
- b. The first post-modernisation and restructure test exercise for PLA's elite Special Operations Forces (SOF), named as 'Ingenious Special Operations Soldier-2018', was conducted in Guilin, Guangxi Province in October 2018. It was a test and assessment contest in which nearly 1000 soldiers of the SOF were put through the battle procedures of command and control, unit and sub-unit operations and employment of modern weaponry and equipment.
- c. Later, in a large-scale demonstrative exercise in September-November 2018, selected brigade level joint-services formations were put through their operational paces. Thereafter, the PLA issued press statements to the effect that 'armed helicopters used rocket-propelled bombs to achieve precise strike, infantry fighting vehicles hit targets with small missiles, self-propelled howitzers practiced launching multi-purpose projectiles and the main battle tank, the Type 99A, proved to be the king of battle'.
- d. Most significantly, in June-August 2019, all the 13 Combined Corps Commanders were subjected to 'professional assessment'

through a series of unit and brigade level test exercises in the Tibetan Plateau. In September, the CMC doubled the military training period for all ranks.

- e. In late 2019, a brigade of the Tibet Military Area Command conducted field training at an oxygen deficit altitude of 5,600 meters. Reportedly, the curricula required the soldiers to descend down 80 m precipice by ropes, carry loads of over 30 kg, and march a total of 114 km over three days and two nights. Swimming across cold river waters was also a part of the training in the Tibetan Plateau.
- f. In June 2020, the second largest three dimensional combat exercise was conducted over the Tibetan Plateau in Western Theatre Command. In August 2020, the Xinjiang Military Command carried out live artillery fire training exercises. The PLA found it prudent to announce that these military drills were not targeted to any country.
- g. On the East Coast, a brigade of 72 Group Army carried out a sea crossing and island landing exercise in August 2020. In the same month, a live maritime fire exercise was conducted over the waters of Zhoushan Islands and the Daishan waterway. The Eastern Theatre Command also held an exercise in the Taiwan Straits.

Fleet Exercises

During 2018-20, the PLAN has engaged itself in on-job training, familiarisation and information build-up activities in the Indian Ocean-West Pacific waters. These activities include warship operation and manoeuvre, high sea sailing, oceanic survey, command and control and maritime logistics.



Aircraft Carrier Liaoning in Exercise (emg.chinamil.com.cn)

PLAN's notable sea exercises during the period, aimed at assimilation of training operationalisation of the modernisation schemes are listed as follows:-

- a. In Jan 2019, PLAN deployed its SCS Fleet on an operational exercise near the Taiwan waters. Besides training in naval warfare, the exercise was demonstrative of China's Taiwan agenda.
- b. In early 2020, a guided-missile frigate of the Hong Kong Garrison of the PLA conducted multi-purpose maritime military training in the waters of South China Sea.
- c. In August 2020, PLAN conducted mine hunting drills in the East China Sea.
- d. In September 2020, while the democratic protests went on, PLA's Hong Kong Garrison conducted a sea-air joint patrol exercise with participation of amphibious bridging vehicles.
- e. In October 2020, PLAN announced that its second aircraft carrier, 'Shandong', would be 'ready by end-2020'.

Air Exercises

Trends. Notable military aviation activities during 2018-20 were as follows:-

- Deployment of electronic warfare aircraft.
- b. Dominating air patrolling over Taiwan and air exercises over the Yellow Sea, Sea of Japan and the Tibetan Plateau.
- c. Air landings on disputed islands in the South China Sea.
- d. Increased component of air-assault forces as an element of multi-dimensional warfare and larger scale of paratrooper jump exercises were reported between April and August 2020.
- e. A June 2020 report highlighted a major transformation of the air-borne troops from just light infantry into all-arm and heavier equipped version of air-land forces. This force was stated to be training for fire attacks, special operations, and helicopter contingencies in integrated force operations under a joint command system. Preparation of an air-borne brigade for landing thousands of kilometers away to operate with full equipment was also reported.
- A major recruitment drive for fliers and pilot training to meet high shortages in Navy and Air Force was reported to be in full swing during June-July 2020.

During the period, the PLAAF has been active in conducting joint training exercises with the air forces of Russia, Pakistan and Thailand. These include competitive assessment during air combat exercises code named as 'Golden Helmet', 'Gold Darts', 'Red Sword' respectively.

Notable Specifics. During the period, notable air exercises conducted by the PLAAF to operationalise its modernisation schemes are listed as follows:-

- a. In May 2018, the PLAAF flew bombers and reconnaissance aircraft in the periphery of Taiwan Island. The exercise was stated to be a 'breakthrough in the mode of cruising' around the Island.
- b. In June 2018, the PLAAF conducted a joint air defense exercise 'under the conditions of IW' and code named as 'Blue Shield'. Ground air defense units of the PLAAF, the PLAA, PLAN, PLARF and other services participated.
- c. Next month, the PLAAF and Russian air force conducted joint air strategic patrol for the first time to enhance what was termed as 'strategic coordination and joint operational capability'.
- d. The 'Blue Shield Air Defence Exercise' over the China Seas and trials for aerial refueling of J-20 stealth aircraft were conducted in October 2018.
- e. According to the PLA Daily, in 2019-20, the PLA Southern Theater Command put two groups of airborne early warning (AEW) warplanes and their crews to test under simulated hostile situations. This exercise was an elaboration over the previously conducted exercises with emphasis on night time training.
- f. Following the recent official reiteration of US-Taiwan relations, China adopted a threatening posture by conducting multiple air combat drills over the Taiwan Straits in September 2020. The PLAAF flew unprecedented numbers of air intrusions 220 against just two in 2019 over the strategic Pratas Atoll in Taiwan's ADIZ.

- g. PLA warplanes including Y-8 anti-submarine warfare aircraft have been flying frequently over Taiwan's self-proclaimed ADIZ. In October 2020, the PLAAF flew such sorties over the Taiwan Islands' air space for four consecutive days.
- In October 2020, 10 UAVs were committed to deliver logistic h. loads to troops in the 'mountainous region' of Tibet.
- Conduct of an air brigade level air-to-air combat exercise with i. improved versions of heavy fighter aircrafts was reported in December 2020.
- j. The ninth PLAAF-Pakistan Air Force joint exercise, 'Shaheen IX', was conducted over Pakistan's northern Arabian Seaboard during the second week of December 2020. Seen as a counter to the Malabar Exercises, the event saw joint air operations with the latest weaponry of various versions held by the two allies.



PLAF in Operational Training (china military online)

Developments in the Rocket Force (RF)

The period 2018-20 was devoted mainly to consolidation of the PLARF's new status as a separate service - the PLASSF - while technical aspects continued to be improved at a steady pace. In the later part of this period, certain significant developments were reported as follows:-

- a. Dong Feng (DF)-41, China's latest inter-continental ballistic missile, was unveiled in October 2019. Manufactured by the China Academy of Launch Vehicle Technology, DF-41 is a 4th Generation solid-fuel road-mobile missile of 15000 km range, with claimed velocity of 25 Mach and 100 m accuracy.
- b. DF-17 medium-range (2500 km) hypersonic (Mach 5) ballistic missiles were deployed on the Fujian and Zhejiang coasts. All RF Brigades in Fujian and Gunagdong were fully equipped thus. Total holding of this missile is stated to be 100.
- c. The PLA's intent seemed to be to employ DF-15/16 short range (maximum 900 km) missiles with non-nuclear warheads against Taiwan while the DF-17 missiles would be used to target US forces in the Taiwan Straits.
- d. The PLA conducted a 'Nuclear Counter-attack Exercise' in January 2020.

Joint Services' Test Exercises

While stepping up on conduct of formation, fleet and wing level training-cum-operational exercises during the years 2018-20, the PLA graduated to organising a series of test or assessment exercises during its later part. The purpose of such test exercises was to judge the efficacy of integrated combat potentialities of ground, sea and air formations, to optimise a balance in force composition and force disposition, and finally, to test the proficiency of command and staff echelons.

Some of the notable joint services test exercises conducted during the period 2019-20 were as follows:-

- March 2019: 'Full assessment exercise' on testing military skill levels at selected unit and formation levels.
- b. June-August 2019: All the 13 Combined Corps Commanders were subjected to professional 'assessment' through a series of unit and brigade level test exercises in the Tibetan Plateau.
- c. Aug 2019: The Xijang Military Region was mobilised with its newly inducted advanced weaponry for conduct of live combat exercises in Tibet-Xinjiang.
- d. September 2019: In another serial of test exercises, online UAV traffic management system to be used in planning, selection, control and flight tracking was tried out. This system is intended to be linked with the air force, civil aviation and local administrative air traffic management systems within the ambit of civil-military cooperation.
- e. October 2019: 'Capability review' of all the three services were conducted. Results were compiled and assessed in March 2020. Conduct of repeat training events could have been triggered by that assessment.
- f. November 2019: The 3rd National Wargame Competition was held. Motto of the competition was, "It is much easier to move mountains than shake the PLA".
- g. September 2019-May 2020: The Western Theatre Command organised a series of high-altitude training events to improve its 'plateau combat' capability. The characteristic rhetorical bombast was "to transform from being just 'stationed for training on the plateau' to staying 'stationed on the plateau at more than 4300 meters', from 'adaptive training' to 'all-round practical training', from 'single service to integrated organisational system', adapting

to new equipment through 'Bright Sword' Drills, and adapting to the new military tactics of 'quenching'.



PLA Joint Training at the Zhurihe Central Combined Tactical Training Base,
Inner Mongolia (Ministry of National Defence, PRC)

Military Posturing

The period 2019-20 also witnessed the following examples of China's assertive military posturing in the maritime domain:-

- a. The PLAN aviation aircrafts conducted patrols and tactical manoeuvres over the Jiaodong Peninsula and the Yellow Sea in September 2019.
- b. In December 2019, 65 fishing vessels and two coast guard ships violated the Indonesian EEZ in the Natuna Sea.
- c. A Malaysian exploration near Borneo was hampered by Chinese vessels forcing it to withdraw.
- d. Vietnamese vessels have been often interdicted by Chinese ships near the Lincoln Island. A Vietnamese boat was sunk near the Paracels Islands.

- e. In March 2020, PLAAF bomber aircrafts flew from one of the air bases in Shaanxi to patrol the seas up to the 'First Island Chain'. At the same time, 'ship-killer' missiles (DF-26) were deployed in the North-West Plateau of China's Eastern Sea-board to counter any possible threat coming from the East – from US actually.
- f. A Filipino boat was sunk off the Reed Island in June 2020.
- Following the twin exercises held in June 2020, the PLA held military exercises in four costal areas simultaneously: two in the South China Sea and one each in the East China Sea, Yellow/ Bohai Sea. In the exercise near the Paracel/Xisha Islands in the South China Sea, the PLAN deployed two aircraft carriers the Liaoning and Shandong - simultaneously. Live-fire combat exercises were also conducted in the East China Sea and the Bohai Sea. In the Yellow Sea, the PLAN held a large-scale livefire exercise when international shipping was prohibited from entering the area.
- h. Exercises were also held across the Taiwan Straits in June-July 2020. In the process, the PRC violated Taiwanese air space as many as 46 times in nine days.

These postures were the PRC's obvious signalling's against increased US presence in the region and the rising US-Taiwan ties. Muscular responses were also directed at the US and her allies' 'Freedom of Navigation Operations' (FONOPS) missions and the 'Rim of Pacific-2020' Exercise which challenge the PRC's attempt to assume arbitrary control over international waterways.

Over five days in August 2020, the US responded by flying over the region its most advanced combat aircrafts including the nuclear capable B-52 strategic bombers. Alongside, with its two carrier groups, the US Navy led a multi-national combat manoeuvre exercise. The US-led counter posturing was a powerful warning for China to desist from, to borrow a Chinese term of accusation, 'creating trouble'.

Aimed at tactical adaptation of its forces to structural reforms and organisational modernisation, the above listed training and posturing events are indicative of the CMC's strategic objectives. Further, delving into these training events offer hints to indicate the tactical recourses adoptable by the PLA to secure such objectives. Training for tactical adaptation to modernisation therefore must form a part of the overall assessment of the CMC's military objectives.

Part V

Assessment of the Trends of PLA's Modernisation, 2018-20

CPC/CMC's Political Directives

China's military reforms and modernisation is an initiative of the Communist Party's (CPC) Central Military Commission (CMC). As such, the political directives promulgated by the General Secretary of the CPC-cum-Chairman of the CMC during the period 2018-20 have well defined themes. These are:-

One, the PLA's absolute loyalty towards the 'absolute and unwavering' leadership of the CPC; and,

Two, the PLA's uplift to the level of a global military power;

Three, projection of the PLA as a backbone of China's societal progress and economic dominance. This idea has been made clear to the State, the Government, the PLA and the Chinese people.

The CPC's concerns are implicit. Over the past decade plus, the best of military officers, influenced by contemporary Western and Russian military thought and helped by dependence on professional merit to guide China's military modernisation, had assumed effective control over the

PLA. These professionally focused members of the military hierarchy had shown little obeisance, if not cynicism, to the primacy accorded to the Party-ideology over the Revolution in Military Affairs (RMA)-dictated strategy and organisation. That had tilted the power balance against the majority of officers who had risen to authority more by Party loyalism than by professional acumen. The CMC has undertaken to correct that tilt to bring back the Party loyalists at key positions of authority.

Remarkably, early political directives enjoined the PLA 'to eliminate the pernicious influence of the corrupt duo of former CMC Vice-Chairmen Guo Boxiong and Xu Caihou'. That attribution connects corruption with ideological differences of some members of PLA-Party's top hierarchy which the Party might not have been able to contain, and thus having to use corruption charges to shut dissidence – successfully so far. In similar vein, President Xi Jinping's choice of top commanders and his keen involvement on progress of PLA's transformation indicate a nurture of the military's loyalty to his authority.

The CMC's Strategic Orientations

Over the recent years, PLA's frequent and overbearing sea and air patrolling across the Taiwan Strait, over the Western Pacific waters of China Seas and the Sea of Japan, as well as the rising frequency, strength and depth of transgressions across the Sino-India LAC, all conform to the Strategic Guidelines as enunciated by the CMC in the early 1980s and thereafter elaborated in the subsequent ones issued in 1988, 1993, 1998, 2004 and 2014. To reiterate, upon dissipation of the long standing threat of Soviet invasion, the said Strategic Guidelines enunciate three nationalist objectives:-

One, to prevent Taiwan's independence till its eventual 'unification' with the mainland.

Two, to 'recover' from neighbouring countries what China claims to be her 'lost territories', and,

Three, ensure security of China's economic ventures abroad, particularly the controversial ones.

Presently, China applies her definition of 'lost territories' to the Western Pacific waters in and around the two China Seas, most of the islands therein, and land territories across the Indo-Nepal-Bhutan-Tibet borders. That explains the rise of current confrontational situations in South and South-East Asia.

The CMC's strategic orientations have crystallised by certain universally appreciated inferences:-

- China has formally 'settled' her overland territorial claims very much in her own favour, with 12 out of her 14 land neighbours though not without currents of disconcert among all of them. It has reached these 'settlements' by recourse to political assertiveness, economic enticements and a pantomime of 'magnanimity' when the victim nations were 'permitted' to retain small parts of such territories which China had arbitrarily decided to claim as her own.5
- The PRC has, however, failed so far to substantiate its illegal claims against any of the eight plus one of her maritime neighbours across the East and South China Seas. Presently, having encroached upon many of the disputed islands as well as her terrestrial claims across the neighbourhood sea and land borders, the PRC, in an attempt to reiterate its pending territorial claims alive, has undertaken

China's 14 Land Neighbours are: Tajikistan, Kyrgyzstan, Kazakhstan, Mongolia, Russia, North Korea, Vietnam, Laos, India, Bhutan, Nepal, Myanmar, Afghanistan, and by the default of its illegal occupation of Northern Kashmir, Pakistan. Her eight plus one maritime neighbours are: Japan and South Korea in the East China Sea, and Vietnam, Philippines, Brunei, Indonesia, Malaysia and, Singapore, plus Taiwan.

to regular military posturing. In that process, China has been consistently building up her capabilities to further expand her encroachments across the China Seas as well as the Indo-Tibet Border. Meanwhile, she has opted to keep her territorial claims against her client states, North Korea and Nepal, in freeze; no doubt, these claims would be reasserted, to use the Communist Party expression, 'when the time is ripe'.

- c. Across her land borders, the CMC, operating just on the margins of active military confrontation, has contrived over time to build up military infrastructure as well as forces to selectively and surreptitiously perform creeping encroachments into its so far unrealised terrestrial ambitions. Presently, India and Bhutan are the targets. The tactics is to intrude local graziers accompanied by militiamen into the claimed lands and back them up with border guards in the pretext of 'border security'. All the while, regular formations are massed on the pretext of infrastructural construction works and military drills.
- d. The CMC's stratagem is to convert the transgressions into *fait accompli* occupation that would not be recovered unless by the rather far-fetched idea of using force against the giant. In the final analysis, rising frequency and strength of the PLA's attempts to secure in-depth encroachments across the Indo-Tibet Border/the Line of Actual Control (LAC) is but a part of the CMC's overall stratagem to apply strategic squeeze on India in association with her innately India averse lackey, Pakistan.
- e. In the maritime domain, indications are clear that the CMC's intent is on settling China's claims over the disputed rocks, outcrops and islands of the East and South China Seas. The stratagem is to stage fishermen-militia at the vanguard of occupation, followed by build-up of civil-military dual-use facilities under the shadow

of its Coast Guard to convert the encroachments into regular maritime outposts. The scheme is backed-up with menacing displays of naval and air cover.



Occupation of Spartley Island/Fiery Cross Reef (straitstimes.com

- The PRC's stratagem to establish control over the common waters of the entire Eastern Pacific Ocean - much to the detriment of the other littorals' sovereignty as well as freedom of international shipping - is to be accomplished by insistence on conduct of bilateral parleys over the claims with the stake-holders, in isolation and on Chinese terms of course, while applying economic, political and military intimidation to clamp-up any rise of combined opposition from its victim nations.
- g. In military terms, the CMC is intent on development of effective sea-denial capabilities to make it prohibitively costly for the US and its allied powers to intervene in China's aggression against those littorals who do not defer to her arbitrary demands.
- h. China's strategic objectives are also apparent by a robust pursuit of establishing her military presence over the Arabian Sea. This pursuit is demonstrated by her acquisitions and upgrades of naval facilities starting from Sri Lanka upto the Persian Gulf. China's final objective of dominating the entire Indo-Pacific waters, once

her fourth carrier group takes to the waters in a 4-5 years' time, is also well appreciated.

China's massive military build-up is clearly aimed at establishment of regional hegemony, eventual occupation of all claimed territories, and securing her overseas interests against possible host-alienation as a fallout of inevitable Han highhandedness. Build-up of the PLAN and PLAAF's operational range well into the Indian Ocean, and eventually up to the East Africa Coast-Persian Gulf Waters, therefore becomes the intended longer-term goal.

Notably, repudiation of the PRC's aggressive military build-up has so far been limited to the US-led FNOPS in the SCS, the Philippines' half-hearted approach to the International Court of Arbitration's verdict in her favour, and more recently in the summer of 2020, India's adoption of a robust military counter-posture along the Indo-Tibet Borders in Eastern Ladakh and Sikkim; earlier India had undertaken a similar exercise on the Chumbi Valley Border Tri-junction. Amongst China's other neighbours, Japan and Taiwan have indicated their firm rejection of China's dubious stratagem while the rest of her victim nations are constrained to be reticent on account of their economic dependence on China and the giant's overwhelming power.

Assessment of CMC's Interim Goal

The CMC's interim goal, forcefully backed up by the CPC General Secretary-cum-President of the PRC Xi Jinping at its helm, is to modernise China's military industry, reform the military's organisational structure and to equip the PLA with latest generations of weapons and equipment. Simultaneously, the PLA has taken comprehensive steps to restructure its combat forces to be integrated and trained with newly inducted modern hardware while developing the requisite battle procedures for 'warfare in the new era', as the Chairman of the CMC says. Indeed, there are signs of

that resolve bearing fruition; only a political set-back could stall China's assertive rise.

Conversely, there seems to have been reckonable set-backs to her military modernisation due to the recent repudiation of China's opportunist exploitation of white, grey and black transactions of commercial and technological nature with the US, European nations, Japan and Taiwan. Though many of her indigenously developed and modernised ground, naval and air weapon-platforms have been inducted into the PLA, inadequacies mainly occur in the realm of standards of sophistication in lethal characteristics of these – engagement in battle requires much more than just moving, sailing and flying. However, this set-back is unlikely to last against the typical Han resolve. Besides, China has already established compelling economic leverages across the globe and developed an effective indigenous technological-military industrial regime that offers a platform for her to modernise without much dependence on foreign sources.

Directives Promulgated by the CMC, 2018-20

It is obvious from the Directives promulgated during this period that the last thing that the Party wants is to have its military loosened out of its absolute vice-grip, particularly when a modernised PLA comes to wield unchallengeable hard power. Accordingly, the CMC's Directives during the period charge the *PLA to wholeheartedly dedicate to the Party's subservience.* The advantages of Party's control are repeatedly highlighted by the Government's prompt rehabilitation of 3,00,000 demobilised personnel, ready response to PLA's routine management issues, the Party's catalytic influence in accelerating modernisation schemes, and integration of civil-military development programmes to allow the military to 'focus on war preparedness'.

Further, the CMC Directives go on to signify technological transformation as the right path for the PLA to achieve the status a global military power.

Shift of focus to indigenous design and manufacture of modern military hardware as against the practice of copying foreign designs has been implicit in that directive. Apparently, the CMC has been preparing for the time when acquisition of technology from advanced nations would be forthcoming no more due to some reason or the other – may be due to China's habit of brazen muscle flexing or challenging the established world order. In any case, technological competency is a pre-requisite to her global power ambitions.

PLA's Conceptual Orientations

During 2018-20, the PLA's conceptual pronouncements had been dominated by its resolve to develop a massive full-spectrum modern military arsenal. In that, China's regional hegemonic and global power ambitions are apparent by the huge build-up of the PLAN, PLAAF, PLARF, PLASSF. Competency in full spectrum warfare – of the hot, grey and cold variety, so to say – is implicit in that resolve. Paradoxically, even if by its own admission 'China faces no threats', the PLA qualifies its massive military build-up by the imperative of what it terms as 'self-defence' and 'world peace and stability'. In the same breath, the CMC views others nations' military preparedness as 'de-stabilising'.

It is apparent that combined with acquisition of latest generation guns, tanks, ships, aircraft and technologically specialised capabilities, profound modernisation of the PLA is aimed at repudiating America's military superiority in the Indo-Pacific Oceanic region up to what China identifies as the 'First Island Chain' – for the time being, before proceeding further. Strong preparations for air defence of key military assets through passive and

⁶ Hippocratic superiority syndrome is built into the Han psyche. By their unilateral definition, they have self-destined priority rights over whatever territories and common assets that they fancy and cannot help but 'reclaim'. It is expected that the heavenly mandated Han supremacy is gracefully accepted by the neighbouring nations who are thus expected to gain by latching on to the residual benefits of China's 'peaceful rise'. Resistance to China's usurpations is therefore to be smothered, regretfully, by 'counterattack in self-defence'.

active means - like long range remote surveillance, parking PLAAF and PLARF weapons in mountain tunnels protected with nuclear blast proof steel doors, electronic umbrella over naval fleets, sea and air swarming tactics, etc. - are implicit in that endeavour.

The PLA considers Inter-Service Jointness as a core feature of military modernisation that would permit it to trim its bloated manpower and turn it into an optimal and cost-effective man-muscle power house. Accordingly, under the ambit of its 'New Era' strategic concepts with 'Chinese Characteristics', it has restructured its command theatre and military region level organisations into joint operational configurations.

The PLA's two decades long thrust on science and technical education alongside upgrade of military training is meant to prepare the soldiery in tapping the best tactical application of modern weapons and equipment. The latest political level prioritisation of military science, research and innovation has become imperative after the developed-world repositories of these disciplines became wise to the Chinese methods of acquiring military technologies through dubious transactions, bribery and outright theft of designs as well as key components. Having by now acquired considerable competence in indigenous design and manufacture of fair quality military hardware through reverse engineering over the years of winking bonhomie with the West while following Deng Xiaoping's dictum of "lie low, hide capacities and bide time", the current focus on galvanising military science, technology and industry is but timely. This is an imperative for the CMC to achieve its desired objectives of import substitution of modern military hardware and conduct of weapon diplomacy as means of acquiring globedominating power.

There are four key factors which have necessitated the policy of technology intensive modernisation of the PLA:-

a. One, most of the indigenously developed and over-publicised military platforms – ground, sea and air – remain just that,

platforms that are still deficient of compatible, tested weaponry and combat support systems. These platforms need to be integrated with compatible high-technology support systems.

- b. Two, the existing inventory of military hardware acquired through import, smuggle and manufacture through borrowed designs need to be regularly upgraded indigenously to keep pace with the fast advances in military technology.
- c. Three, the PLA's acquisition of high-technical competence is necessary for it to be right-sized and modernised. Thrust on inter-services jointness, balancing of the tri-services force structure, operationalising information warfare, tactical adaption of unmanned swarming in air and sea, and integration of civil and military industrial schemes are contingent on effective implementation of that policy.
- d. Having been barred from usurping furtive advantages of technological largesse from the US and the European Union, the PLA, in order to secure its grand objectives, has to uplift its fundamental competencies on science and technology.

A significant fallout of the PLA's conceptual orientation has manifested in redefining its expanded arena for war-fighting. Dominated so far by tri-dimensional modes of warfare, a modernised PLA has sought to expand that arena to prosecution of multi-spectrum warfare with integrated and operationally balanced roles assigned to unmanned weapons systems, IW and Electronic Warfare, cyber operations and space control. This process is further qualified by the intent of taking recourse to 'Three Warfares' that aims at subverting international legal provisions, casting psychological pressures among the target citizenry and spreading deception through media subterfuge.

Comments

Discussions over the preceding Parts of the Paper help in drawing certain key inferences over the PLA's reforms and modernisation. Revelation of China's military ambitions would be a corollary.

Considering the theatre specific focus on weapons and training, it is obvious that the PLA's priority objective during 2018-20, had been to test its capabilities in performing the following tasks:-

- a. Sea-denial or sea control across the East and South China Seas; and,
- b. Territory grabbing offensive operations over the high-altitude Tibetan Plateau.

In matters of right-sizing the military, particularly the Army, induction of IW assets and training to uplift professional standards, China's military modernisation programme appears to be on schedule. Similarly, with continued build-up of restructured ground forces and long-range sea, marine, air and air defence capability, the goal of territorial as well as oceanic domination is gradually coming within the PLA's reach – the CMC thinks so, with some justifications. In that process, the PLA has graduated over to the stage of putting selected few of its modernised formations through joint-services exercises under simulated battle conditions in the Taiwan and Tibetan theatres. Chairman CMC's attendance of these exercises is indicative of the Party's prime interest in nurturing the PLA as its most potent instrument in realising its global power, hegemonic, ambitions.

The period 2018-20 has seen a continuation of the restructure-cumconsolidation exercise which should be more or less operative by now. However, as inference from military reports purport, functional finetuning and readjustments to optimise the apex level defence decisionmaking would have to continue well hereafter.

Part VI

PLA's Foreign Military Relation Initiatives, 2018-20

PLA's Military-Diplomatic Outreach

The Trend. 2018 saw China, besides continuing with the arms supply diplomacy, accelerate her military-to-military relations by engaging in joint manoeuvres. Invariably, these manoeuvres were purportedly aimed at cooperation in addressing the threats of terrorism and natural disasters. Notable events in this context are listed herein:-

Naval Escort Task Force. China continued to provide her naval task force, under the 30th rotation, to protect the Arabian Sea shipping lanes against piracy etc. The PLAN uses this opportunity to build-up its hydrographic and sailing data bank.

Sino-Myanmar Border. In its efforts to adopt a balanced posture between the Myanmar State and its multi-ethnic rebellious groups, the PRC, in January, strengthened its Border Guard Units along the Sino-Myanmar Border, with the purpose of 'safeguarding national sovereignty and security, border stability and safety of Chinese people living in the border area'. Besides, China remains a major supplier of military hardware to Myanmar. Ironically, China also supports Myanmar's rebellious insurgent

groups with arms, supplies and intransigent motivation.

Indonesia-China Naval Exercise. China participated in Komodo-18, a 37-nation (including India) naval exercise organised by Indonesia in May. The Exercise highlighted Indonesia's naval revamp and affirmation of her strategic location as a 'global maritime fulcrum'.

Hospital Ship Cruise. In July, a PLAN state-of-the art hospital ship made goodwill port calls to a severely sanctioned Venezuela, besides other nations on the East African and Latin American coasts.

Russian Military Exercises. The PLA sent a force of 3200 troops to participate in Russia's highly demonstrative military Exercise 'Vostok-2018', held in the Trans-Baikal region in September 2018. Top brass from both countries as well as from the Shanghai Cooperation Organisation (SCO) met during the event to discuss a 'Peace Mission–2018' of jointly fighting against the 'three evil forces of terrorism, extremism and separatism'. A smaller joint exercise, code named 'Pandaroo' was also held. In August 2020, The PLA participated in the 'Tank Biathlon' competition during the International Army Games 2020 with 16 other participating teams.

China-Thailand Joint Exercises. In September 2018, the PLAAF participated in a joint air exercise codenamed 'Falcon Strike-2018' with the Royal Thai Air Force. This exercise was the third one after 2015 and 2017. In February 2020, the 'Cobra Gold' multilateral joint military exercise was conducted in Thailand, US participating.

ASEAN-China Maritime Exercise. This exercise participated by the China-wary South East Asian nations and China was held in the Western Pacific in October 2018.

Exercise 'Aman-19'. The sixth multinational exercise 'Aman-19', organised by PLAN and Pakistan Navy in February 2019, was conducted off the Pakistan coast. 46 foreign observers including US and Russia were

in attendance.

Ceremonial Event. The 70th Anniversary multinational naval events were organised in April 2019.

Exercises with India and Pakistan. In November 2019, India-China 'Hand-to-Hand' Exercise on counter-terrorism and 'Warrior VII' Exercise with the Pakistan Special Forces were organised.

Naval Exercise with Pakistan Navy. The 6th Pakistan-China Joint Naval Exercise 'Sea Guardian' was held in January 2020.

Kavkaz-2020. China, along with Iran, joined the Russia organised Kavkaz (or Caucasus)-2020 joint military drills in September 2020, with Azerbaijan, Indonesia, Kazakhstan, Tajikistan and Sri Lanka participating as observers.

Sailing through the Indian Ocean. During the period 2018-20, The PLAN continued with its practice of entering and sailing in the Indian Ocean and across the Straits of Malacca with the expressed intent of 'ensuring safety of international shipping'.



PLAN-ASEAN in Multi-national Exercise (eng.chinamil.com.cn)

China's Power Projection

China-US Cooperation. Before the recent US decision to check China's growing exploitation of its economic and technological relationships, there had been many bilateral co-operative arrangements, the key ones being as follows:-

- a. A round of top ministerial level Diplomatic and Security Dialogue took place in October 2018, when cooperation on trade, military, law enforcement, counter-terrorism and regional situation was discussed. Yang Jiechi, Member and Director of Foreign Affairs Commission of Central Committee of CPC Political Bureau and State Councillor and Defense Minister Wei Fenghe led the Dialogue with the U.S. Secretaries of State and Defence Mike Pompeo and James Mattis. After 2017, this was the second such dialogue the salience of which lie in the rhetorical enunciation of China's self-interpreted 'sovereignty, peaceful cooperation and regional stability'.
- b. In this major powers meeting, Chinese decision makers reiterated their stance over China's supposed 'peaceful rise', her claims of exercising 'military moderation' and 'indisputable sovereignty' over neighbourhood territories including Taiwan and the South China Sea. China's quest for 'peace in Korea Peninsula, Afghanistan and the Middle East', and 'reformation' of Xinjiang-Uighurs being an internal matter were reiterated.
- c. In sum, the Chinese saw the Dialogue as an occasion to affirm their unilateral version of international policies and enjoin U.S. to cooperate in accomplishment of their 'Chinese Dream'.

International Forum. The 2nd International Forum on the subject of defence was held in Jun 2019 at the National Defence University, Beijing.

The Xiangshan Forum. Convened at the behest of China in 2006, the Xiangshan Forum is aimed at promoting high-level security and defense understandings among the Asia-Pacific countries. Features of this Forum are:-

- a. Convened biennially first and annually since 2015, this Forum is meant to be a benign platform for China to engage in strategic dialogue and communication, and to find 'consensus and cooperation in jointly addressing global security challenges and maintaining peace and stability'. In plain words, it is a soft call for other countries to appreciate China's power ambitions and her 'indelible sovereignty' over the other nation's territories that she claims.
- b. The recent 9th Forum was convened in October 2019, and presided over by the PRC's Minister for National Defence and State Councillor as well as a Member of the Standing Committee of the Party's Politburo. Most countries were represented by their think tanks where they were enjoined to 'cooperate with China's rise and reap the benefits'. 'New approaches' to international security, terrorism, maritime cooperation and U.N. Peace-keeping were discussed.
- c. The Forum was not organised during 2020 due to the Covid Pandemic.

Asian Defence Ministers Meeting (ADMM). The largest land based joint counter-terrorism drills with 800 troops and 10 aircrafts from 10 ASEAN and eight Dialogue Partners was organised in November 2019 alongside the ADMM.

Military in Poverty Alleviation. A China-Thailand military-to-military video conference on 'Poverty Alleviation' – an unusual military objective - attended by top policy makers, was held in September 2020.

'Crisis Communication'. A Global Times report of 29 October 2020 stated that a China-US military meeting on 'crisis communication' - a rather ambiguous term - was to be held by the end of 2020 to 'discuss issues of maritime security'. The intent seems to get around the US' rejection to China's arbitrary attempts to exercise control over the China Seas and discontinuation of the FNOPS in return for some bilateral accommodation.

Assessment of PLA's Military Diplomacy

While continuing with its diplomacy of arms supply, China has undertaken to promote its cooperative, if condescending, military relationships with its neighbours. The ostensible purpose is to assuage the widespread suspicion over China's massive military build-up even while she denies any existence of external threats to her national security. Conversely, China's repeated assertions that there shall be no compromise with her self-sanctioned 'indisputable territorial claims', exacerbates that suspicion.

The Xiangshan and China-US dialogues were, in fact, the typical Chinese monologues at an apprehensive audience. The obvious purpose was to sell the 'Chinese Dream', enjoin the regional nations as well as the US to find compromise with 'China's Peaceful Rise' while being satisfied with what little benefits that might come their way in that process. Apparently, the China's dialogues with the US aimed at forging bilateral understandings over global territorial delineation - areas of dominance, so to say - where the two powers would be free to exercise their respective hegemony. Ideological differences have saved the day – so far.

Nonchalant parroting of the contrasting rhetoric of not compromising with the PRC's outlandish 'historic sovereignty claims' and backing such claims with brazen use of military muscle at the one hand, and that of using military build-up to bring global peace, progress and stability and to join the global fight against the 'three evil forces of terrorism, extremism and separatism' on

the other, are indicative of the PRC's innate duplicity, deceit and condescending attitude against its hapless neighbours.

Part VII

PLA in Sino-Indian Context, 2018-20

India-China Strategic Interactions

Wuhan Summit Meeting, April 2018. Putting China's antagonist stance on hold, President Xi Jinping and the Indian Prime Minister had an informal Summit Meeting at Wuhan, China, in April 2018, mainly to find some understanding over the ever-overarching border dispute. Affirming their 'maturity and wisdom to handle their differences through peaceful discussion and by respecting each other's concerns and aspirations', they agreed to seek a 'fair, reasonable and mutually acceptable settlement on the boundary question'. Further, the two militaries were asked to 'strengthen the Confidence Building Measures (CBMs)' - which had been mutually agreed upon in 1993, 1996, 2003, 2005 and 2013 - and 'enhance communication and cooperation to uphold border peace and tranquillity'.

Mamallapuram, October 2019. Extending the spirit of the Wuhan Summit, India and China engaged in an Informal Summit at Mamallapuram. The meet was mostly dedicated to mutual cooperation on political and economic matters. The border issue was addressed by calling for: Firstly, the 'Boundary issues to be solved on the lines of a mutually-agreed framework based on Political Parameters and Guiding Principles

that had been agreed by the two sides in 2005'; and secondly, the 'strategic communication to be enhanced to maximise usage of high-level exchanges like dialogue mechanisms'.

Defence Consultations. The 9th China-India Annual Defence and Security Consultation was held in Beijing in November 2018. The Deputy Chief of Joint Staff Department of the CMC and Indian Defense Secretary discussed military relations, border tranquillity, and security issues of common concern.

Joint Military Exercises. In December 2018, the 7th China-Indian 'Hand-in-Hand' Army Joint Training Exercise was held at Chengdu in China's Sichuan Province. The joint training was purported to promote 'mutual trust, understanding and cooperation' between the two Army's and improve their 'counter-terrorism capabilities'.

Border incidents of 2020 prove that China viewed these meetings as offering opportunities for India to reconcile to the former's 'indisputable' territorial claims. Apparently, the purpose was also to cover preparations for the intended transgressions in-force and enlargement of encroachments across the LAC.

China's Rituals of LAC Violations and Bogus Protestations

Beginning the mid-2000s, the PRC has turned increasingly assertive in advancing its arbitrary territorial claims and escalating its forcible transgressions into the Indian border areas - which since the latter half of 2010s has gradually come to a pass.

In keeping with its predictable practice, during the period in question, the PRC has continued with intermittent military transgressions across the LAC and the McMahon Line, followed by bogus protestations against India's supposed 'violation of Chinese territory'. Even routine visitations of prominent Indian State, social and religious functionaries to India's

border areas draw such bogus protestations. It needs no insight to see China's pretentious 'objections' over the visits of the Prime Minister, Union Cabinet Ministers, Dalai Lama et al to Arunachal Pradesh and Ladakh morphing from banal mischiefs into aggressive encounters.

In April 2018, the Indo-Tibet Border Police (ITBP) reported to the Home Ministry regarding the PLA's increasing transgressions across the LAC in the West. The same activity as seen across the McMahon line in the East. Following this, the Union Home Minister's visit to Ladakh and his night halt at a ITBP post near the LAC drew an 'expert' from the Tsinghua University's influential National Strategy Institute to comment that it was a 'provocative move after the Doklam stand-off'. Stating that India must be made aware of China's determination to safeguard her 'territorial sovereignty' - over Indian territory (!) - the widely reported expert advice went on to caution China to be on 'high alert against India's continuation of confrontationist stance along the India-China Border'.

There had been clearly read signs of the PLA's confrontational build-up since 2011, which India had sought to conciliate by political-diplomatic means. In light of PLA's aggression since early 2020, it should be wise for Indian defence planners to shed any hope for relief from China's aggressive behaviour and take serious stock of PLA's activities across the Indo-Tibet Border.

PLA's Force Build-up in Tibet, 2018-20

The most significant development from Indian angle during 2018-20 is the PLA's regular conduct of a series of unit and brigade level highaltitude combat training exercises in the Tibetan Plateau, with the objective of assault and capture of tactical features above 5000 metre altitude. During the latter part of this period, the PLA revised its practice of seasonal transportation of units and formations to the Tibetan Plateau to participate in weapons drills, live firing, field manoeuvres and unit and brigade level tactical exercises, and gradually began to locate some troops permanently on the high-altitude plateau.



Fire Drills in Tibet ((freepresskashmir.news)

Equally significant is the strengthening the air power component of the PLA's Western Theatre Command which stands poised across the entire length of the Indo-Tibet Border. The PLAAF has been rather active in regularly exercising its air warfare configurations in terms of combat, combat support, command and control, and early warning packages in high-altitude manoeuvres over the Tibetan Plateau. Simultaneously, it has considerably upgraded its configuration for air-space defence ostensibly 'to confront possible Indian threat'. PLA's inventory of more advanced military aircrafts as compared to India has also been broadcast repeatedly.

True to its strict adherence to text book procedures, the PLA has preceded its force deployments with the creation of a series of requisite logistic base infrastructure. The infrastructure include semi-permanent extreme cold-high-altitude billets for the troops, storage parks and depots, repair and service workshops, garages, helipads. During 2018-20, these bases have performed as platforms for activation of tactically adaptive 'Joint Battle Zone Logistics Support System' to support large scale ground and air operations.

PLA's Operational Preparations in Tibet

The first schedule of high-altitude plateau specific operational training was organised in 2016. Subsequently, the Western Theatre Command's Army component has been organising unit and combined combat group training exercises, which are observed, studied and analysed at all the five-levels of military hierarchy. Notably, the training curricula and simulations have been unequivocally aimed at capture of tactical heights along and across the LAC.



PLA Manoeuvre Training on Tibetan Plateau (militaryleak.com)

Notable India-focused operational training events in the PLA's Western Theatre during the period 2018-20 - that is the advanced phase of the current modernisation process – are listed as under:-

April-June, 2018

- April 2018: A helicopter group of a certain army aviation brigade took off from 3000m altitude to operate in high-altitude airspace.
- June 2018: From its camp located at 3000 m altitude in the Chengdu area, a brigade was moved to an area of 5000m height in Tibet for four months' training. The move was by rail up to the Plateau Base. PLA's usual bombast hailed the move as a landmark achievement.

June-November, 2018

- More units and brigade level formations were inducted into the Tibetan Plateau for acclimatisation and familiarisation with the living and working conditions in high-altitude deserts.
- PLA's usual high-pepping reports, however, indicate that the troops in the Tibetan Plateau were affected by low confidence level and lack of stamina.
- Though not specifically reported, it is certain that a winter deinduction, turn-over and recoup-and-refit policy for the troops and units has been implemented.
- Reportedly, unit level training including usage of weapons and equipment was conducted throughout the summer seasons, and routinely followed up thereafter.
- One combined-arm brigade level high-altitude exercises was conducted in the summer of 2018, and the lessons applied to configure task-force compositions, battle drills and battle procedures. Obviously, the PLA was intent on skilling itself in the so far unfamiliar nuances of high-altitude desert plateau-land warfare.

April-November, 2019

- M-6 Howitzers, most suitable for deployment in fire support on the Tibet Plateau, were inducted in January 2019.
- A routine of year-on-year combined air-ground training involving a brigade and an army aviation unit was reported. A number of Parachute training events on the Plateau were also organised.

- In the summer of 2019, there was increase in training activities in Tibet and a similar terrain in Xinjiang. Advanced weaponry and equipment were deployed for training on high altitude ground. One (maybe two) combined-arms brigade level exercises - apparently in mechanised heavy composition - were also conducted with the objectives of capturing features over 5000m plus altitude. The tactics adopted indicates a strong preference to capture such objectives by mechanised assault, and if the ground did not permit that, heli-landing of troops as close to the objective followed by infantry assault.
- Induction of large consignments of pre-fabricated shelters for the troops' living on the Plateau was reported in November 2019.



PLA Exercise on Tibetan High Altitude (china.org.cn)

March-July, 2020

February 2020: Live anti-air exercise with Hongqui-16 missiles was held in the Tibet Military District. In the same month, an aviation brigade conducted combat drills with Z-10 attack helicopters which have been fitted with upgraded engines for better high-altitude performance.

- April 2020: Construction of shooting ranges, training on helicopter flying over high-altitude plateau including landing on higher features, and an announcement regarding coverage the Tibet region with 5G network were the main events.
- May-June 2020: China-India stand-off in Eastern Ladakh saw the deployment of combined brigades of 76 Group Army, the aviation brigade of 77 Group Army, combat, command and control flights of the PLAAF, all-weather air defence units, drones, sniper detachments, engineer and bridging units, and all other elements of full scale battle. Establishment of a new military camp 180 km East of Pangong Tso in addition to the existing ones at Chip Chap, Sumdo, Kongka La, Khurnak, Rudok and Tashigong (Gar/Ngari), besides many other smaller ones was also reported. Obviously, more of such build-up activities have continued since.
- **July 2020**: As part of a second large scale exercise held under the Western Theatre Command, an infantry battalion-tank coordination exercise was held at altitudes of 4700m in the Xizang (Tibet) Military District.

September-December 2020

This period saw massive build-up of frontline forces of approximately three division equivalent strength all along the areas of the stand-off in Eastern Ladakh. Large scale deployment of latest air defence weapons, road-mobile missiles, surveillance radars, and UAVs was noticed. Corresponding construction and expansion of base operational logistic infrastructure in terms of expansion and new constructions all astride the LAC was also noticed. Although not specifically reported, corresponding upgrades of air and missile bases in the depth areas should be a foregone conclusion.

Notably, similar activities, albeit at an incremental scale, have been observed in North Sikkim and North-Western Arunachal Pradesh. Steady military build-up in these sectors had been going on since the Doklam incident in 2017. Happening in depth areas and without much publicity, these developments have not attract as much public attention as the confrontation in Easter Ladakh has.

Development of Logistic Infrastructure

Troops' Habitat

- Brisk construction of pre-fabricated huts for troops' living, storage for war material and related ancillaries astride the entire length of the Indo-Tibet Border was noticed throughout the period in consideration. Corresponding construction of landing grounds, warehouses, internal roads, fencings, bore wells etc. was also noticed. According to the PRC's norms, such infrastructure are earmarked for dual use purposes, though habitation on the border areas is rather sparse.
- Survey of 'Six Difficulties on Tibet Border' electricity, water, heating, medical, oxygen absorption and toilets was carried out in April 2020 with much deliberations. The purpose was to make life easier for troops' living in such difficult areas. Observers have indicated construction of solar heated and self-powered thermal insulation cabins for troops' living in the high altitude Indo-Tibetan borders. As reported by *China Military Online*, series of measures are being undertaken for provision of oxygen supply, water and heating arrangements and for the troops. Provision of power Supply to border defense posts through the state power grid and 200m underground deep-water wells have also been reported.

- Storage and food preservation capabilities of the fresh supplies' storage cellars have been improved with ventilation, refrigeration equipment and heat preservation boards built on the inner walls to adjust wind, temperature and humidity automatically.
- The PLA is tuning up its drone based battlefield supply system along the Sino-Indian Border. As per *China Military Online*, transportation units of the PLA's Tibet Military Region are gearing up to supply hot food, drinking water, medicine and other urgently needed supplies with help of drones.
- Posting of a first batch of 3000 recruits to Tibet has been reported. The wave of logistic preparations could assuage anxieties regarding the harsh environs among the troops' families back home.



PLA Troops' Shelters in Tibet (en.people.cn)

Surface Communications

Steady improvement of the Western Tibet Highway, in terms
of long distance transportation and transit infrastructure, transit
camps and signal connectivity along the major arterial road sides,
has been an on-going process over the years. Apparently, the pace

- of development and expansion of these have increased in the preceding 3-4 years. That pace has seen a jump in 2019-2020.
- In the East, completion of Gansu-Qilian Highway and opening of Lhasa-Shigatse Expressway up to Nagqu was slated to be achieved by end-2020.
- According to Xinhua News Agency, the Lhasa-Nyingchi (Linzhi) Railway has completed, in December 2019, its second longest bridge (4615 m) over River Yarlung Tsangpo (Brahmaputra) near the Rongxiang township. When fully completed in early 2021, this railway line will facilitate build-up of troops along the North-Eastern Indo-Tibet border.
- China Railway's high work capacity can be assessed by the performance of its 11th Bureau. It began track laying work on this line in October 2018. By December 2019, it had completed 114 out of the total length of 435.48 km, crossing the River Yarlung Tsangpo 16 times. The first fully electrified line with a designed speed of 160 kmph, the line is expected to be commercial by early 2021.
- The Lhasa to Nyingchi railway line will quicken the PLA's build-up timing on the Indo-Tibet Border opposite the Arunachal Pradesh from 7-8 hours by road to just 2-3 hours by rail. The line will also facilitate economic development and strengthen the Party's grip over South-Eastern Tibet. It will also allow better control over the newly settled villages along the Indo-Tibet Border.
- With these developments, PLA's mass accessibility to southern and western parts of Tibet right up to the Indo-Tibet Border will improve substantially.

• For faster transportation of forces from other areas, the Xining Logistic Support Centre was placed with the Tibet (Xizang) Military District's area of responsibility.

Assessment of PLA Activities in Tibet

Biding Time. Despite the Doklam stand-down and the so called 'Wuhan spirit' followed up with Mamallapuram bonhomie, there is no let up on China's innate antagonism against India. The Doklam stand-off, which had exposed to the world China's muscle flexing 'rise', remains as an unexpected setback, a sore if fact, in Chinese strategic minds, to be redeemed at an opportune time. Apparently, China's motivation for those Summit Meetings was to freeze the festering differences for the benefit of unhindered accomplishment of her high politico-economic-territorial aspirations. Similarly, India's purpose was to seek relief from the intractable border security challenges, without any compromise with her sovereign rights, in order to focus on socio-economic development. Doubtlessly, true to her innate characteristics, Communist China's friendly countenance could be retained only till, as Zhou Enlai' had put, the 'time is ripe'. For the CMC, that time ripened in the summer of 2020.

Creeping Encroachments. During 2018-20, PLA's rather accelerated war-preparedness in Tibet had been unambiguously targeted against India's defensive border management deployment along the Indo-Tibet Border. It is clear that the border line already having been pushed, surreptitiously and in small slices, well to West and South of its natural alignment, there is hereafter to be a continuation of forcible transgressions by the PLA, in strength and in overt manner, to continue China's territorial usurpation.

Consolidation. Notably, once accomplished in covert manner, the PLA has never really vacated its encroachments; rather it has consolidated its transgressions in a graduated manner. Brisk build-up along the North-East border is directly related to the military aggression in Eastern Ladakh

as well as the PLA's future plans.



PLA in Training Exercise (china military online)

Expansionist Push. Having accomplished, for the time being, the occupation of the first lot of key pivots in the two China Seas, shift of thrust to creation of disproportionately elaborate networks of border villages, troops' habitat and transportation infrastructure signifies China's intent, and capacity, to establish her iron grip over even remote and sparsely inhabited areas of Tibet. It also signifies a major westwards and southwards extension of PLA's operational reach. Listings of the PLA's operational build-up, preparations and tactical training schedules, with specific thrust on adaptation of the troops as well as modern weaponry and equipment to Plateau battle fields, reveal that the CMC has girdled up to push its expansionist agenda further across the Indo-Tibet Border in opportune moments.

Militarisation of Indo-Tibet Border. Construction of elaborate logistic infrastructure reveals an intent to keep the militarisation of the border areas as a permanent measure. Recourse to formation level heli-landings of troops close to the ultra-high altitude objectives, build-up of assault echelons, and employment of mechanised units to support, terrain permitting even

capture the tactically important heights, is as clear a sign as it could ever be of that resolve. The strategic purpose of the entire scheme, of course, would also be to make other nations reconcile to China's unstoppable hegemonic aspirations.

Next Objective. PLA's intent of permanent occupation of its encroachments into the Indian side of the LAC, both in the West and East, before its inevitable territorial grab deeper across, has become clear. Accordingly, with the ongoing Sino-India stand-off in 2020, the Western Theatre Command has assumed operational priority in the CMC's scheme. Loud proclamations regarding provision of comfortable habitation for the troops living under harsh Tibetan conditions is aimed at keeping up the soldiers' families back home in good spirits.

Further assessment of China's machinations in the Indian context must await the emergence of future developments along the Indo-Tibet Border.

Part VIII

Overall Assessment of PLA's Modernisation and War-worthiness

Reaffirmation of Goals of PLA's Modernisation

As inferred from the trends of the PLA's reforms and modernisation schemes and tactical adaptation of these, China's strategic intents come out in conformity with the appreciations made among the global strategic community. Matters to consider in this respect are as summarised below:-

- a. China's military build-up is organised to immobilise any form of resistance against the 'Chinese Dream' of establishing firm and unchallenged sovereignty over all waters and lands that she has decided to claim to be her 'lost territories'. Isolation of the targeted 'trouble making' nations into helplessness and subjecting them to diplomatic arm-twisting before hurling military power is the method adopted to that end.
- b. Modernisation of naval and air power put together serves the PLA's intent to prevent the super power and its allies from coming to the rescue of such targeted 'trouble-makers' by imposing such a cost that they might not like to bear. Notably, aggression in Tibet is safe from such international interventions in the defendant's favour.

- c. Establishment of effective control over the Japan Sea-China Sea waters and islands therein in a manner that the littoral states are obliged to let China have her unquestionable way as the 'first claimant' over the region's natural resources is a corollary. The purpose is to bind the rest of Asian nations into an economic monopoly in a manner that they are obliged with expedient reasons under compelling circumstances to link their survival to economic dependence on the PRC. Besides military expansion across China's near neighbourhood land and sea territories, swarming the land border areas and islands with ostensibly civilian foraging stake holders the PLA backed Militia actually is to be one of the ploys to achieve that end.
- d. Accordingly, *PLA's modernisation is being tuned for projection of military power as an insurance in favour of economic colonisation of the Indo-Pacific Region, the rest of Asia and Africa.* Achievement of PLA's oceanic dominance over the Indian Ocean and its littorals is a part of that tune.
- e. PLA's modernisation has set a course that is intended to replace the United States' regional role which many political analysts believe, prematurely of course, to be on the decline and to assume unchallenged regional hegemony.
- f. Lastly, China's ultimate stakes over the Belt and Road Initiative dream, coupled with India's rising influence in what she considers as her regional domain, puts India at China's primary cross-hair. Indiaspecific contextualisation and reiteration of the observed course of China's military modernisation in the recent years is therefore a necessity.

In the Eastern Indo-Pacific Theatre, China has arbitrarily occupied some of the islands in the East China Sea and then consolidated that occupation.

For the time being, before embarking upon the next round of unilateral usurpations, she has engaged in intimidating her contending neighbours into submission to her domineering. Military bullying of Taiwan, Japan, Vietnam, and the Philippines, besides others, is one part of that exercise. The other part is to build-up military capability to subvert the US' and its allies' influential role in the regional equilibrium and to repudiate the notion of freedom of navigation, with immunity.

Equipment profiling and training exercises over the past couple of years are indicative of China's Western Theatre being the CMC's priority operational thrust area. Elaborate preparations made to sustain transgressions all along the Indo-Tibet Border and the latest Sino-India military stand-off in Eastern Ladakh in 2020 confirms that fact. Besides, this is the theatre where China claims to have unresolved land boundary issues, as also the region where India has to face China practically in isolation. It is therefore right to infer that even if and when the current Sino-India stand-off is resolved for the time being, there would be no let-up in PLA's opportunistic territorial grabs - till India's 2020 'dare' against China's heavenly mandated superiority is avenged.

Assessment of PLA's War-worthiness

Defining War-worthiness. Nations do not go to war just to indulge their ambitions and self-asserted platitudes of military power - they wage war to win, to succeed - with full certainty. Therefore there have to be weightier considerations in assessing war-worthiness of militaries. A modernised PLA's war-worthiness would be well inferred when its conceptual orientations are blended with the on-going equipment profiling, and operational and training activities – which have been the subject of discussion in the earlier Parts above. Besides, measures of the PLA's current war-worthiness may be assessed based on certain more or less authenticated information and application of common military knowledge.

Factors of Force-capability. Military force-capabilities are organised based on four variable factors, namely, 'Aim', 'Terrain', 'Enemy' and 'Objective'. Forces organised for one set of these four ever variable factors have to adapt, albeit with some compromise with the designated capability. From this angle, the reorganised structure and training exercises of the PLA's field forces indicate its bias towards operations in terrain that are conducive to mechanised predominant warfare. Conduct of major conventional operations deep across rugged mountainous terrain – say deep across the Indo-Tibet, Sino-Myanmar, Gilgit-Baltistan borders – may not therefore be envisaged – for the time being. Similarly, PLA's current activities on sea and in air indicate its preference to the suppression of weaker opposition and defiance of stronger powers, both while remaining short of decisive conflict. That could define the Chinese terms of 'limited localised war' and 'active defence'.

Force-deployability. Manoeuvreable-mechanised predominant forces are better deployed for engagements along Sino-Russian, Sino-Mongolia, Sino-Central Asian States or the East Coast terrain, or even the hinterland areas of Manchuria, Xinjiang and Greater Tibet. When connected with the PLA's build-up of inter-theatre air and amphibian capability, these forces assume further applicability in the context of sub-continental and 'out-of-area', - under adverse circumstances even internal - force projection. That might explain the CPC's goal of using the PLA to protect internal stability of the regime and promoting its global economic and political agenda by creating a 'world class military'.

Force-structure. Structure of the PLAN is definitive of its domination over the blue waters of the 'First and 'Second Island Chains', to the extent that even the super power, the US, would be circumspect in its free indulgence over these waters. Thus having more or less secured its dominant space within the Sea of Japan, Taiwan Straits, Yellow Sea and East and South China Seas, the further build-up of PRC's naval power in the Indo-Pacific region is unambiguously aimed at registration of not just a bona fide 'presence',

but establishing its 'domination' across the South-East Asian island chain, the Malacca Straits and beyond the Andaman & Nicobar Islands. Further, in due course the PLAN force-structure is gearing up to push this sequence across the Indian Peninsula, and right up to the East Africa Coast and the two Gulfs.

Power Projection. PLA's second and the third stages of naval modernisation schemes and acquisition of naval power projection capability in the Pacific and Indian Oceans are designed to extend its leverage across the African continent where much of Chinese investments are coming up. In the that context, it is obvious that whatever shape the Chinese footholds - over port facilities in the forms of operational halts, harbours, hubs or bases all across the waters of the China Sea-Indian Ocean - might assume in the coming days, the PLA Navy is fast configuring to be active over vast and distant operational beats. Indeed, it will require a decades' gestation before the PLAN can flex its muscles in the Indian Ocean; but what is certain that it will definitely achieve that end.

Strategic Reach. Corresponding to the other two Services, *modernisation* of the PLAAF is being build up for joint operations across a regional arena that extends through the Sea of Japan, the China Seas and to the chain of islands at the eastern periphery of the Indian Ocean. By the creation of faraway navalair operating and logistic bases, and composition of an airborne corps of three parachute divisions, the strategic reach of China's air power is expected to be further extended across the Indian Ocean to the Malabar and the East African Coasts and even to China's economic acquisitions in faraway lands.

Missile and Nuclear Power. With a formidable conventional force at its disposal, the PRC needs no nuclear-missile cover, unless it is to deter the super power from 'meddling' in its sphere of hegemony, or to prevent any victim of its aggression from retaliating too hurtfully. Reconfiguration of the service status as well as command and control over the PLA Rocket Force and the PLASSF are clearly aimed at: One, political posturing to impose threat; and two, duress employment in distinct stand-alone mode, not necessarily

as a part of military campaign on ground. A significant revelation also comes from the PLA's Policy Promulgations (pp 17 above) relating its nuclear arsenal as a 'key determinant for self-defence, counter-terrorism, sovereignty and integrity of the people'. Does the CMC envisage use of nuclear weapons to supress internal revolts against the regime?

Space Power. China's reach to space power is demonstrated by the latest success of the China National Space Administration (CNSA). The lunar probe Chang'e-5 return with rock samples from the reverse face of the Moon in December 2020 is China's latest success story in her space outreach. *In view of the CPC's policy of military customisation of every major project, China's inclination to dominate space is obvious.* Earlier, China has demonstrated her ability to target space assets.

The PAPF. Unstated though, the CPC remains anxious of internal opposition to its autarkic rule. Indeed, re-configuration of the PAPF addresses that concern regarding outbreak of people's revolt against the regime, occurrence of which is not difficult to visualise. The Han nation's instinctive reactions to internal uprisings in the past have been to suppress these in ruthless manner, with the least concern of local and international outcry. But the situation has somewhat changed. Designation of a reconfigured but CMC-PLA's controlled PAPF as a 'police force' but with para-military characteristics is indicative of a deliberate policy of decimating challenges against the regime without having to invite Tiananmen Square kind of universal abhorrence of its military highhandedness. Besides suppressing internal disturbances, this force would also be well utilised in low intensity and rear area tasks during hot wars and out-of-area policing duties.

Overall Evaluation of the PLA's War-worthiness

Tall platitudes of operational accomplishments achieved in various training exercises notwithstanding, professional assessment suggests that it would be some years before reckonable numbers of the PLA's battle formations,

PLAN fleets and PLAAF air formations are adequately trained through a sequence of unit, brigade, division, corps, fleet and air formation level exercises in joint services environments. The obvious inference is that for some years after 2020, PLA's battle formations would remain untested on their designated capabilities and. It will therefore take some years for China's restructured military machine to acquire reckonable war winning potential in confronting the formidable powers who have stake in adherence to international norms of behaviour and freedom of navigation.

Nevertheless, when arraigned against China's less prepared neighbourhood adversaries that should not constrain the PLA as the shortcomings in operational procedures would be made up by its huge strength of combat personnel, weaponry and equipment. In practical terms, therefore, behind a façade of self-invented 'historical facts' and self-adjudged 'moderation', browbeating of less powerful neighbours and aggressive arm-twisting against those who do not fall in line with China's hegemonic superiority will continue.

Concluding Remarks

According to her own admission, "China faces no threat". It is therefore a matter to consider as to why China requires such a massive military establishment, a humungous power-bank which, even if intrinsic to its 'barrel of gun' ideology, far exceeds its reckonable defence needs - unless it is to provoke, dominate or impose over other nations' sovereignty. Indeed, China's adoption of a steady, long-term and pro-active trans-border usurpation policy, duly backed up by powerful military forces — with full complements of reserves, firm bases, and logistics — makes her a looming threat to regional peace and stability.

Rising anguish against the communist regime's totalitarian rule that targets local ethnicities to ruthlessly smother their culture has triggered a wave of separatism among the peoples of Greater Tibet, East Turkistan, Inner Mongolia and Hong Kong. On its part, the Chinese autarky is conscious of the historical fact that internal revolts have generally been the cause of downfall of previous Sinic empires. Fear of Han domination is also prevalent among the peoples of already acquired neighbourhood territories in the West as well as the claimed cross-border areas like Taiwan, Arunachal Pradesh and Ladakh. True to its fixation, the regime has adopted harsh repressive measures to keep dissent down and the PLA, as the foundation arm of

the communist regime, has been assigned a lead role in that repressive fixation.

Every nation-state, by tradition and good sense, remains obliged to reveal only such information that it cannot obscure, and even then, colour that information in ambiguities. The task of military analyses becomes even more hazardous when it comes to a nation where strategic deception is a traditional and tested foundation of statecraft, as indeed China is. Besides, it is of no help when the larger picture becomes discernible only after a gap of two or more years. Therefore, regular assessment of the affairs of the PLA must begin from the roots of the CPC's military aspirations followed by testing the claimed as well as known facts against the fundamentals of military logic. This paper undertakes that venture.

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