# The Dragon Bares its Fangs: Modernisation of PLARF to Support an Expansionist Policy

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#### Introduction

On December 31, 2015, China elevated the status and stature of its nuclear and missile forces by making the People's Liberation Army Rocket Force (PLARF) a fourth military Service alongside the Army, Navy and Air Force. Since then, the pronouncements and directions of Chinese President Xi Jinping and press releases have bolstered and further enhanced the importance that China attaches to its PLARF.

Owing to China's increasing attention on the PLARF, it becomes imperative to understand the Chinese approach to the modernisation of the PLARF and its future role. The pertinent query lies in understanding of how this capability will be instrumental in actualising China's role in the future. Keeping this context, the assessments will be drawn from a context and content analysis of the official papers and documents of press releases to determine if there is a genuine commitment to the official word or there is an asymmetry in the theory and practice. In doing so, the paper seeks to examine two key issues: first, application of the proposed thoughts and ideas; and second, evaluation of the consonance between professing and practice.

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### The Duality in China's Approach: Professing Versus Practice

The 2015 White Paper on China's Military Strategy stated: "China will unswervingly follow the path of peaceful development, pursue an independent foreign policy of peace and a national defense policy that is defensive in nature, oppose hegemonism and power politics in all forms, and will never seek hegemony or expansion. China's armed forces will remain a staunch force in maintaining world peace". 1 However, Chinese actions, as witnessed in its artificial island build-up activities in the South China Sea, rejection of the ruling by the International Court of Justice which was against China, unilateral establishment of the Air Defence Identification Zone (ADIZ) over the East China Sea, support to North Korea, the Doklam intrusion into Bhutanese territory and others run contrary to its own propositions, as noted in the above White Paper. On the contrary, these actions exemplify China's non-conformist attitude, further suggesting that as China grows more powerful, it will become more unpredictable in its behaviour and approach. This asymmetry in theory and practice reflects the duality in the Chinese approach. This can be further assessed under a thematic perspective, as evident from the 2015 White Paper.

With respect to the application of the Revolution in Military Affairs (RMA), the White Paper notes: "The world Revolution in Military Affairs (RMA) is proceeding to a new stage. Long-range, precise, smart, stealthy and unmanned weapons and equipment are becoming increasingly sophisticated. Outer space and cyber space have become new commanding heights in strategic competition among all parties. The form of war is accelerating its evolution to informationization". China has emphasised on the shift towards informationised warfare, and, in the past two decades, and more so, in the last five years, China has also made strident progress in the development and deployment of the strategy of "dual deterrence and dual operations" enunciated by Jiang Zemin post the first Gulf War. China learnt important lessons from the Gulf War on the use of precision

and guided weapons, standoff capability of weapon platforms and the power of network-centric warfare synergised by satellites. China has made a concerted effort to improve the capability of the PLARF by the induction of new technologically advanced missiles and technical enhancement of the existing missiles which has improved its precision strike and manoeuvrability of missiles. To enable the informationised (network-centric operations), China has focussed on growth in the space and cyber domains. The RMA effect on the PLARF and space capabilities will be examined later.

On the missions of the PLA, the White Paper states, "China's armed forces mainly shoulder the following strategic tasks: To deal with a wide range of emergencies and military threats, and effectively safeguard the sovereignty and security of China's territorial land, air and sea. To resolutely safeguard the unification of the motherland. To safeguard China's security and interests in new domains. To safeguard the security of China's overseas interests. To maintain strategic deterrence and carry out nuclear counterattack. To participate in regional and international security cooperation and maintain regional and world peace".3 In comparison to the past papers, this one exhibits a new departure as the scope of China's threat perception is broadened and there is an emphasis on China's larger role in the international order. This is indicative of China's growing interest as well as the possibility of its playing a role beyond the Chinese borders. Such behaviour can be played out by active or forced participation in maintaining peace outside China, addressing military threats proactively, or even preemptive action, and development of new military capabilities in the emerging domains, specifically, space and cyber. In view of this, the way China defines its overseas interests is driven by its own interpretation that serves its own interest. This further indicates an increase in China's muscle flexing behaviour, thus, calling for great power competition.

The concept of 'active defence' needs analysis, which as the White Paper posits "is the essence of the CPC's military strategic thought. From the long-term practice of revolutionary wars, the people's armed forces have developed a complete set of strategic concepts of active defense, which boils down to: adherence to the unity of strategic defense and operational and tactical offense".4 To note, the initial term is defined as "unity of strategic defense", while, the second half is defined as that of "operational and tactical offense". The counter-attack actions in such a situation will result in preemptive actions to stall an offensive by the opponent. This reflects a dichotomy: if the operational and tactical aspects are offensive in nature, then it remains indisputable that the overall strategy cannot be defensive, as stated above. In view of this, all Chinese actions in war and peace should be regarded as offensive, as perceiving these otherwise results in a faulty assessment. This is evident in terms of China's behaviour towards India, as witnessed in the 1950s, 1962 or 1967, the episodes of transgressions in the past decade and, most recently, the Doklam standoff in 2017: all these clarify the duality in the Chinese interpretation of their strategy. To justify its offensive actions and intent, China portrays itself as the wronged party, even distorting historical facts to legitimise its claims.

China has transformed its strategic outlook from "winning local wars in conditions of modern technology, particularly high technology" in 1993 to that of "winning local wars under conditions of informationization" in 2004 to that of "winning informationized local wars" in 2015. As the White Paper mentions, "[t]o implement the military strategic guideline of active defense in the new situation, China's armed forces will adjust the basic point for [Preparation for Military Struggle] PMS. In line with the evolving form of war and national security situation, the basic point for PMS will be placed on winning informationized local wars, highlighting maritime military struggle and maritime PMS". Furthermore, China seeks to expand its role in the maritime domain as the White Paper clearly states that the PLA Navy (PLAN) "will gradually shift its focus from 'offshore waters defense' to the combination of 'offshore waters defense' and 'open seas protection'"6—making a shift from defence to offence. This strategic shift is witnessed in China's increasing maritime activities

such as the setting up of a naval base at Djibouti and gaining an island at Maldives, along with access to ports such as Gwadar (Pakistan) and Hambantota (Sri Lanka), which are clear and unambiguous indicators of its intentions. In addition, the concept of maritime PMS is being addressed by increasing the PLAN's capability in terms of its amphibious and marine forces strength; acquisition of a carrierborne aircraft and long range bomber and precision missile developments. Thereby, these factors quantify the changing nature of China's strategy which is directly related to the growth of its military power. Hence, this four-fold assessment of China's approach reflects the duality in its intentions and actions vis-à-vis its proposition.

## Contexualising PLARF in China's Dualist Approach

The reconstitution of the PLARF in 2015 as a military Service indicates the importance China puts on maintaining a modern missile force. In the words of Xi, the force is a "core of strategic deterrence, a strategic buttress to the country's position as a major power, and a cornerstone on which to build national security". Emphasising the "irreplaceable role" played by the PLARF in containing war threats, ensuring China's strategic posture and maintaining global strategic balance and stability, Xi underlined the need to "increase its sense of crisis and strengthen its strategic ability" for the purpose of securing a safe strategic security environment for China.8

In this regard, the current agenda for China lies in enhancing its strategic containment capacity, combat preparedness and application of strategy. In doing so, the PLARF seeks to: strengthen the trustworthy and reliable nuclear deterrence and nuclear counter-attack capabilities; intensify the construction of medium and long range precision strike power, and, reinforce the strategic check-and-balance capability. This further explains that the role of China's missile force has evolved significantly from being a nuclear deterrent force based on intermediate and medium-range missiles to becoming a force with

intercontinental- and medium-range capabilities, combined with a powerful conventional missile arm capable of conducting precision attacks at a medium range.

What is noteworthy is that despite the PLARF being upgraded, the functional objectives of the missile force are still rooted in the directions of the erstwhile Second Artillery Force. This is exemplified in the 2015 White Paper, which provides a three-fold perspective. That is, first, the aim of the PLARF is to transform itself in the direction of informationisation, press forward with independent innovations in weaponry and equipment by reliance on science and technology, enhance the safety, reliability and effectiveness of missile systems, and improve the force structure, featuring a combination of both nuclear and conventional capabilities. <sup>10</sup> In this regard, the PLARF will strengthen its capabilities for "strategic deterrence and nuclear counter-attack, and medium- and long-range precision strikes". <sup>11</sup>

Secondly, the PLARF will act as the strategic cornerstone for safeguarding national sovereignty and security, wherein, China has pursued a policy of no first use of nuclear weapons and adhered to a self-defensive nuclear strategy that is defensive in nature. China seeks to keep its nuclear capabilities at the minimum level, as required for maintaining its national security. However, there is a clear proposition that China will optimise its nuclear force structure, improve strategic early warning, command and control, missile penetration, rapid reaction, and survivability and protection, and deter other countries from using or threatening to use nuclear weapons against China.

And, finally, the PLARF will continue to keep an appropriate level of vigilance in peace-time, which will perfect the "integrated, functional, agile and efficient operational duty system".<sup>12</sup>

In this perspective, what demands attention is China's "No First Use" (NFU) policy. As the 2015 White Paper notes, China will "unconditionally not use or threaten to use nuclear weapons against non-

nuclear-weapon states or in nuclear weapon-free zones, and will never enter into a nuclear arms race with any other country". 13 This statement, if analysed in the context of active defence and the above context, makes the NFU limited, and not applicable to states with nuclear weapons such as the US, Russia and India. That is, to explain that if active defence is seen at the operational and tactical levels, then it implies offensive actions by the nuclear forces. Given the lack of clarity, the 2018 US Department of Defence (DoD) report states, "There is some ambiguity, however, over the conditions under which China's NFU policy would no longer apply." Some PLA officers have written publicly of the need to spell out conditions under which China might need to use nuclear weapons first; for example, if an enemy's conventional attack threatened the survival of China's nuclear force or of the regime itself. There has been no indication that national leaders are willing to attach such nuances and caveats to China's NFU policy. China's lack of transparency regarding the scope and scale of its nuclear modernisation programme raises questions regarding its future intent. PLA writings express the value of a "launch on warning" nuclear posture, an approach to deterrence that uses heightened readiness, improved surveillance, and streamlined decision-making processes to enable a more rapid response to an enemy attack. These writings highlight the posture's consistency with China's nuclear "No First Use" policy, suggesting it may be an aspiration for China's nuclear forces. To augment it further, China is working to develop a space-based early warning capability that could support this posture in the future.

What is noteworthy is that China's approach to nuclear deterrence and changes in its nuclear forces have not received much attention. It becomes imminent that developments in China's nuclear deterrent should not be ignored, given that China's nuclear weapons play an important role in the areas of potential conflict, which correlates to China's actions to push its claims. The PLARF capability has allowed China to have a strategic advantage against its opponents. At the foremost, the PLARF

has supported the thought of providing a secure and favourable strategic posture: as the power of the PLARF and the reach of its missiles increases, China will be able to support power projection capability further from the mainland and deny access to the interventionary forces of other powers. The idea of containing "war threats" is reflected in greater capability of deterrence and to punish interventionary forces, if the situation demands. Strategic stability maintenance is seen by China in the inability of the US to prevent China from continuing the militarisation of the South China Sea at the expense of the smaller nations.

## Capabilities and Force Development

With the PLARF, the key query lies in understanding that if China adheres to its declared "no first use" policy and "self-defensive nuclear strategy", then can its nuclear arsenal survive a first strike? The answer to which can be traced in the way China has successively modernised its rocket forces. Elevating the PLARF's stature to that of a separate Service and given Xi's emphasis on calling it the "core of strategic deterrence" significantly indicates the direction China seeks to take to propel its actions. That is, it is indicative of China's willingness to invest in growth, modernisation and expansion of the rocket forces by strengthening capabilities, improving force structure, informationisation and innovation. This is evident in the PLARF's growth in both strength and size in the past decade in all spheres: it holds approximately 1,800 missiles, both nuclear-tipped and conventional. More specifically, the 2018 US Department of Defence Report suggests the strength to be 1,491 to 1,930 missiles of various types and launchers of 456 to 585 different types. 14

Furthermore, in recent times, as China officially claims, the PLARF has strengthened its nuclear counter-attack and medium-long range precision strike capabilities with multiple new types of missile systems put into service.<sup>15</sup> This claim was advanced with the induction of the DF-26 with a probable range of 4,000 km into the PLARF—deemed

to play an important role in the killer weapons of the PLA combat troops. In addition, the PLARF is heavily invested in modernising its nuclear forces by enhancing its silo-based Intercontinental Ballistic Missiles (ICBM) and adding more survivable, mobile delivery systems. As reported, China's ICBM arsenal to date consists of approximately 75-100 ICBMs, including the silo-based CSS-4 Mod 2 (DF-5A) and Multiple Independently Targeted Reentry Vehicle (MIRV)-equipped Mod 3 (DF-5B); the solid-fuelled, road-mobile CSS-10 Mod 1 and 2 (DF-31 and DF-31A); and the shorter range CSS-3 (DF-4). The CSS-10 Mod 2, with a range in excess of 11,200 km, can reach most locations within the continental United States. China is also developing a new road-mobile ICBM, the CSS-X-20 (DF-41) capable of carrying MIRVs.

In the event of the PLA's 90th Anniversary Parade, China displayed, for the first time, two nuclear-capable ballistic missiles—the DF-26 and DF-31AG—providing an insight on its future nuclear deterrent. The DF-26 is an Intermediate-Range Ballistic Missile (IRBM) which is capable of conducting conventional and nuclear precision strikes against ground targets. While the DF-31AG is a modified version of the DF-31A road-mobile ICBM with the primary difference of the Transporter Erector Launcher (TEL) vehicle that transports and fires the missile. The upgrades indicate that the DF-31AG is capable of making off-road launch in most kinds of terrain, with a very short preparation time. With this, the PLARF now operates at least three types of ICBMs for its nuclear deterrence system: the DF-31A, DF-31AG and DF-5B.

In addition to the DF-31AG, another ground-to-ground missile that emerged for the first time at the parade was the DF-16G Medium-Range Ballistic Missile (MRBM). The DF-16, as China claims, features high accuracy, short preparation time, and an improved manoeuvrable terminal stage that can better infiltrate missile defence systems.<sup>20</sup> Adding further to the inventory of short range missiles, China's conventional

missile force includes the CSS-6 Short-Range Ballistic Missile (SRBM) with a range of 725-850 km; and the CSS-7 SRBM with a range of 300-600 km. This force is complemented by road-mobile, solid fuelled CSS-5 Mod 2 and Mod 6 (DF-21) MRBMs and DF-26 IRBMs for regional deterrence missions".<sup>21</sup> These are land-attack and anti-ship variants of the CSS-5 MRBM, and the conventionally-armed CSS-5 Mod 5 Anti-Ship Ballistic Missile (ASBM) gives the PLA the capability to attack ships, including aircraft carriers, in the western Pacific Ocean.

The DF-26, first fielded in 2016, is capable of conducting conventional and nuclear precision strikes against ground targets and conventional strikes against naval targets in the western Pacific and Indian Oceans, and the South China Sea.<sup>22</sup> China has developed cruise missiles in the air, land and sea variants, with ranges from 500 to 3000 km, with some of the cruise missiles carrying nuclear warheads. The land version is the CJ-10, and the sea variants include the YJ-83 series, YJ-62 ASCMs, YJ-18 (with a supersonic terminal sprint), the long range supersonic YJ-12 Anti-Ship Cruise Missile (ASCM) for the H-6 bomber. The air-launched Land Attack Cruise Missiles (LACMs) include the YJ-63, KD-88, and CJ-20 [the air-launched version of the CJ-10 Ground Launched Cruise Missile(GLCM)]. <sup>23</sup>

In effect, China is also developing an effective class of SSBNs (Ship, Submersible, Ballistic, Nuclear), as evident in China's *Jin*-class SSBN, with four commissioned and at least one other under construction. The *Jin*-class (Type 094), which carries the JL-2 Submarine-Launched Ballistic Missile (SLBM), marks China's "first credible at-sea second-strike nuclear capability".<sup>24</sup> The construction of China's next-generation Type 096 SSBN, reportedly to be armed with the follow-on JL-3 SLBM, likely is begin in the early 2020s. In addition, the PLAN's nuclear arsenal comprises up to three *Han*-class (Type-091) SSNs(Nuclear Powered Attack Submarines), two *Shang* I-class (Type-093) SSNs, and up to four improved *Shang* II-class (Type-093A) SSNs/SSGNs (Ship, Submarine, Guided, Nuclear).<sup>25</sup>

China is working to develop ballistic missile defences consisting of kinetic-energy exo-atmospheric and endo-atmospheric interceptors. The media has confirmed China's intent to move ahead with land- and sea-based mid-course missile defence capabilities. The HQ-19 midcourse interceptor was undergoing tests in 2016 to verify its capability against 3,000-km class ballistic missiles, and an HQ-19 unit may have begun preliminary operations in western China. Indigenous radars, including the JY-27A and JL-1A - the latter advertised as capable of the precision tracking of multiple ballistic missiles – reportedly provide target detection for the system. China has fielded SA-20 PMU2 Surface-to-Air Missiles (SAMs) and future S-400 SAMs may have some capability to engage ballistic missiles, depending on the interceptors and supporting infrastructure.<sup>26</sup> China is developing technologies that are necessary to counter ballistic missile defence systems, to include Manoeuvrable Reentry Vehicles (MaRVs), MIRVs, decoys, chaff, jamming, thermal shielding, and hypersonic glide vehicles. Deployment of more sophisticated Command and Control (C2) systems and refining C2 processes is in progress in view of the deployment of mobile ICBMs and future SSBN deterrence patrols.27

Given these developments in China's nuclear arsenal, another significant development that adds to China's growing capabilities is its development of space capability. As the 2015 White Paper reflects, "[o] uter space has become a commanding height in international strategic competition. Countries concerned are developing their space forces and instruments, and the first signs of weaponisation of outer space have appeared. [...]. China will keep abreast of the dynamics of outer space, deal with security threats and challenges in that domain, and secure its space assets to serve its national economic and social development, and maintain outer space security". The Congressional U.S.-China Economic and Security Review Commission reports of 2016 and 2017<sup>29</sup> have listed out the developments and progress by China in the fields of space support

capabilities such as space-based communication; position, navigation, and timing; space-based Intelligence Surveillance and Reconnaissance (ISR); ballistic missile warning, space launch detection, and characterisation; and environmental monitoring, offensive systems such as direct-ascent anti satellite missiles, co-orbital systems, and ground-based directed energy weapons. China's Anti-Satellite (ASAT) capability is now well established. Its first ASAT test was conducted in May 2005, however, a 2007 test destroyed a redundant Feng Yun 1C weather satellite owned by China, leaving over 3,000 dangerous pieces of debris in space.<sup>30</sup> The test was conducted in Low Earth Orbit (LEO), at 865 km above the Earth. A 2013 test by Beijing involved its new missile, the DN-2 or Dong Neng-2, and the test was conducted in "nearly geosynchronous orbit," where most of the ISR satellites are located.<sup>31</sup> While in October 2015, China tested the DN-3 exo-atmospheric vehicle, reported to be able to destroy US satellites.<sup>32</sup>

Along with direct-ascent ASAT weapons, China is also believed to be developing other space weapons: in June 2016, China launched the Aolong-1 or Roaming Dragon spacecraft on a Long March 7 rocket, which is equipped with a robotic arm to remove large debris such as old satellites, and is a dual-use ASAT weapon.<sup>33</sup> The Aolong-1 is believed to be the first in a series of spacecraft that will be tasked with collecting man-made space debris. Beijing's recent space activities indicate that it is developing co-orbital anti-satellite systems to target US space assets. To note, co-orbital anti-satellite systems consist of a satellite armed with a weapon such as an "explosive charge, fragmentation device, kinetic energy weapon, laser, radio frequency weapon, jammer, or robotic arm".34 In addition to the "hard-kill" methods, Beijing is also testing soft-kill methods to incapacitate enemy satellites. For instance, China has been acquiring a number of foreign and indigenous ground-based satellite jammers since the mid-2000s. These jammers are designed to disrupt an adversary's communications with a satellite by overpowering

the signals being sent to or from it.<sup>35</sup> The PLA can use these jammers to deny an adversary access to the Global Positioning System (GPS) and other satellite signals. Directed energy lasers are also a soft-kill method that could be used in an anti-satellite mission. China has been committing resources to the research and development for directed energy weapons since the 1990s.<sup>36</sup>

In view of these developments, it is to suggest that criticising others and following through with similar actions and programmes is indicative of China's deceit and duality. China's progress in the space domain is spectacular to say the least and now, with the creation of the PLA Strategic Support Force (PLASSF), the military-related space missions will get a boost in both the space support and offensive missions.

#### Conclusion

Given this perspective, an analysis of China's officially documented strategy and policy provides a clear and concise view of China's future trajectory in international affairs and military strategy to support the enhanced and expansionist role that China visualises for itself in world affairs and regional dominance. China has asserted its claims in disputed areas by force and coercive actions, which run counter to the stated policy in the White Papers issued by the state. China also wishes to establish international rules and a world order on its own terms as articulated in the 2017 Asia-Pacific White Paper,<sup>37</sup> as the present liberal world order does not comply with China's political model. The revisionist approach of China is witnessed in the economic policies as demonstrated in the Belt Road Initiative (BRI). Financial and economic policies are being integrated into China's overall strategic approach to world affairs. Its participation in regional and international security cooperation and maintenance of its regional and world peace role that China visualises for itself is a clear indication that military power will be used when required. Protection of overseas interests too will involve power projection and deployment of maritime resources at various places in the world. The enhanced role in international affairs that China has articulated will see power projection into India's maritime domain in the Indian Ocean Region (IOR) under the garb of energy security, security of the Sea Lanes of Communication (SLOCs), military assistance to countries, humanitarian assistance or antipiracy operations.

The PLARF is being modernised, technically enhanced, qualitatively improved, structurally upgraded and quantitatively augmented for a role in containing war threats, ensuring China's strategic posture and maintaining global strategic balance and stability. The PLARF is now capable of action in the conventional missions regionally upto 4,000 km and in nuclear missions across the globe. The A2/AD (Anti-Access/Area Denial) strategy is also effective regionally and, in the future, this reach may include the Indian Ocean besides the Bay of Bengal and Arabian Sea. The PLARF is on the path laid down in the White Paper and directions given out by President Xi Jinping in the past three years, a modern and informatioanized capable missile force, ably supported by the space and cyber domains. The strategic direction to the PLA of "winning informationized local wars" refers to the periphery of China, and the disputes with India, Vietnam and Japan form the basis of the strategic directive. India, being one of the countries with territorial disputes with China, will do well not to trust China on published policies, and take appropriate actions to counter it on the violation of a rule-based world order, and coercion. The situation demands that India build capability and capacity to challenge China in case of a crisis or emergency, and work with other stakeholders to build partnerships to block its unilateral actions.

China has articulated an offensive military strategy under the façade of strategic defence, India must understand the duplicity and pretense in the wording, and plan to undertake measures and a strategy to negate active defence. While trade and economic cooperation between India

and China has increased and China has allowed India's entry into the Shanghai Cooperation Organisation (SCO), on the crucial entry to the Nuclear Suppliers Group (NSG) and the UN Security Council, China remains staunchly opposed to India. In view of this, in the future, China will see India as a challenger and competitor in the regional context. This therefore, makes it imperative for India to prepare for the desired military capability for regional competition and dominance, if and when the need arises.

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