PLARF: China's 21st Century Rocket Army

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Introduction

In 2017, at the People's Liberation Army's (PLA's) 90th Anniversary Parade, China's Strategic Strike Group, consisting of the 1st Army of the Rockets and the 4 Missiles and 5 Missiles showcased the newly elevated People's Liberation Army Rocket Force (PLARF).[1] More specifically, the military parade displayed for the first time two nuclear-capable ballistic missiles—the DF-26 and DF-31AG—providing an insight into China's future nuclear deterrent. Acting further, on April 26, 2018, the PLARF commissioned the DF-26 Intermediate Range Ballistic Missile (IRBM) into service. With this induction, China has taken a significant leap in its military arsenal. What makes the DF-26 significant is its core operational feature, wherein with a range of 3,000-4,000 km and an ability to carry a 1,200-1,800 kg nuclear or conventional warhead, China now has the capability to strike directly at the US territory of Guam or target ships at sea. Calling it a major "trump card", China sees this missile's deployment as "a milestone in the Rocket Force's history," making the force a "new strategic tool".[2] Highlighting this aspect, the Chinese Ministry of National Defence (MND) posited that the DF-26 "can carry both conventional and nuclear warheads, capable of both rapid nuclear counter-strikes and conventional medium-and-long range precision strikes" and is also "capable of launching precision strikes at both critical targets on land and medium- and large-sized vessels at sea".[3]

Given its dual capability, raising significant concerns, the West has dubbed the DF-26 as "Guam Killer".[4] However, dismissing the speculations, the MND

pointedly stressed that "there is no change in China's self-defense nuclear strategy and 'No First Use' of nuclear weapons policy".[5] This position is in concurrence with the 2015 White Paper on "China's Military Strategy" that categorically states that China's "national defense policy is defensive in nature, opposes hegemonism and power politics in all forms, and will never seek hegemony or expansion".[6] However, China's actions seem to defy its defensive intentions. More specifically, in the context of the PLARF, there has been a strategic shift in the Chinese perception. This is witnessed in the two significant reforms: first, graduating to the name PLARF from being called the Second Artillery Force (SAF); and second, achieving a full Service status alongside the Army, Navy, and Air Force from that of being an independent branch of the Army. These structural changes signify the PLARF's elevated status as well as importance in China's military and strategic calculus. Most importantly, it suggests that the PLARF is not just a "provider" of key military capabilities but has become a "potential source of coercive leverage" for Beijing and also acts as a "visible symbol" of China's great-power status.[7] In this perspective, the paper seeks to examine the role of the PLARF in China's strategic outlook, arguing that the PLARF acts as a 'trump card' in China's security arsenal.

Shift in Chinese View From SAF to PLARF

China's national strategic goal under the leadership of Xi Jinping is two-fold: building a moderately prosperous society in all respects by 2021 when the Communist Party of China (CPC) celebrates its centenary; and building a modern socialist country that is prosperous, strong, democratic, culturally advanced and harmonious by 2049 when the People's Republic of China (PRC) marks its centenary. However, China's security environment is faced with challenges, which Xi defines as "Three Trends" and "Three Major Dangers",[8] wherein, the "Three Trends" exemplify the external environment, the international situation that is constantly changing, and new opportunities and challenges that are continually emerging, while the "Three Major Dangers" are those of China being "invaded, toppled and separated".[9]

Owing to these security concerns, for China, the primary objective is mainly three-fold: safeguard national sovereignty, security, and development interests. In this perspective, Xi's plan of action is driven by three key targets for the PLA:[10] by 2020, "achieve its mechanization, make big strides in informatization and gain substantial improvement in strategic capabilities"; become "a modernized force" by 2035; and emerge as "a world-class military" by 2050. Here, the

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emphasis lies on making the PLA a more joint and informationised force that can fight and win wars across all theatres. This is embedded in China's transformed 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.

In this context, the establishment of the PLARF signals the increasing importance of conventional and nuclear missiles to the PLA's war-fighting and deterrence capabilities. What makes it so is that one of key strategic tasks of China's armed forces is to "maintain strategic deterrence and carry out nuclear counterattack".[11] In view of this, Xi has categorically stated that the PLARF is "China's core force for strategic deterrence, a strategic buttress for China's position as a major power, and an important cornerstone for defending national security". This implies that the PLARF would serve essentially the same function as the SAF. Similarly, a PLA spokesman emphasized that the country's no-first-use nuclear pledge remained intact. However, a key change is that the PLARF conventional units will have closer relations with the Theatre Commands. Xi's remarks exemplify the importance China attaches to its strategic missile force, which is responsible for the PLA's land-based ballistic and cruise missiles and serves as the cornerstone of the Chinese military's strategic deterrence and conventional precision strike capabilities.

However, although upgraded from the SAF to the PLARF, the functional objectives of the missile forces still adhere to the directions of the SAF. As the 2015 White Paper categorically notes, the objectives are mainly three-fold:[12] First, strive 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.[13] This will strengthen the PLARF's capabilities for strategic deterrence and nuclear counter-attack, and medium- and long-range precision strikes. Second, act as the strategic cornerstone for safeguarding national sovereignty and security. In doing so, certain conditions are attached, which in the Chinese perspective are: (a) adherence to no first use and being defensive in nature; (b) no unconditional use or threat of use of

weapons against non-nuclear-weapon states, nuclear-weapon-free zones or entry into a nuclear arms race with any other country; (c) keeping the nuclear capabilities at the minimum level required for maintaining national security.[14] Third, optimise the nuclear force structure, improve the 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.[15] This helps the PLARF to keep an appropriate level of vigilance in peace-time.

What makes the PLARF significant in Xi's agenda? Taking a departure from the SAF, the creation of the PLARF is driven by two factors:[16] first, bureaucratic motivation—as the SAF operated in a role similar to that of other PLA Services, making the PLARF a full Service provided a formalisation to the *de facto* arrangements, responsibilities and relations. This formalisation also exemplifies the growing Chinese focus towards force development instead of commanding operations. This also suggests the increasing role of the PLARF in the PLA's overall force posture. Second, the need to recognise the increasing importance of missile forces for China's military strategy and national security. That is, on a conventional level, developing missile capabilities provides the PLA more options in planning for regional scenarios such as Taiwan, South China Sea, East China Sea, and Korean Peninsula. While on the strategic level, the PLARF provides greater credibility to China's nuclear deterrence.[17] These drivers further confirm that an upgradation from the SAF to the PLARF has given an impetus to China's missile capabilities, symbolically as well as significantly enhancing its role in China's security agenda.

In addition, this shift also provides an impetus to *Xi's 'fight and win' theory. The aim is to make the PLA a 'combat force' in order to* transform from the "regional defensive type to the full-spectrum combat type, so as to build a powerful, modern and new-type Army"[18] which is capable not only of fighting but most importantly, is efficient in winning wars.

PLARF: The New Arsenal

The establishment of the PLARF, makes it imperative to assess China's nuclear deterrence given that nuclear weapons play an important role in pushing towards what China 'claims'. The PLARF provides a strategic leverage to China to secure its claims, wherein the expanding reach of its missiles elevates China's power to exercise its capabilities. To note, China's strategic weapons modernisation programme has been essentially aimed at ensuring China's second strike

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capability as witnessed in the increasing growth in the warhead arsenal as well as the building of the ballistic missile force. But, in 2017, China advanced a long-term modernisation plan with the core aim to enhance the PLARF's "strategic deterrence capability". In doing so, Xi stressed on "three breakthroughs"[19] that the PLARF should achieve: a breakthrough in improving strategic containment capabilities, a breakthrough in improving the level of actual combat, and a breakthrough in strengthening its strategic use.[20] This suggests that at the operational level, the PLARF seeks to be "ready to fight at any time", "launch on-time" and "effectively destroy [targets]" under complex and challenging combat conditions.[21]

In modernising the PLARF, as witnessed, there is an increasing willingness to strengthen capabilities, improving the force structure, informationisation and innovation. With its incremental growth in both size and strength, as China too 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. More specifically, China claims that the new medium-long range missile plays an important role in the killer weapons of the PLA combat troops.[22] This claim has been further 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 view of this, China's conventional missile force includes: the CSS-6 Short Range Ballistic Missile (SRBM) with a range of 725-850 km; the CSS-7 SRBM with a range of 300-600 km; the CSS-11 SRBM with a range of over 700 km; the Land-Attack and Anti-Ship Cruise Missile (LACM and ASCM) variants of the CSS-5 Medium-Range Ballistic Missile (MRBM); the DF-26 Intermediate Range Ballistic Missile (IRBM); and the CJ-10 Ground-Launched Cruise Missile (GLCM).[23] More specifically, China's conventionally-armed CSS-5 Mod 5 Anti-Ship Ballistic Missile (ASBM) provides the PLA with the capability to attack ships, including aircraft carriers, in the western Pacific Ocean.[24]

In addition, the PLARF is heavily invested in modernising its nuclear forces by enhancing its silo-based Intercontinental Ballistic Missiles (ICBMs) 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 Independent 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.[25] China since 2017 is also developing a new road-mobile ICBM, the CSS-X-20 (DF-41) capable of carrying MIRVs and also considering an additional DF-41 launch options, including rail-mobile and silo basing. 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.[26] This suggests that PLARF's arsenal comprises mainly three types of ICBMs: the DF-31A, DF-31AG and DF-5B.

China has also developed cruise missiles in the air, land and sea variants with ranges from 500 to 3,000 km, and some of the cruise missiles carry nuclear warheads. To cite examples, the land-based one is the CJ-10; the sea variants include and YJ-83 series, YJ-62 ASCMs, the YJ-18 (with a supersonic terminal sprint); the long range supersonic comprises the YJ-12 ASCM for the H-6 bomber and the air launched LACMs include the YJ-63, KD-88, and CJ-20 (the air-launched version of the CJ-10 GLCM).[27] In the nuclear sea power capabilities, China is invested in developing an effective class of SSBNs (ballistic missile submarines such as the *Jin*-class SSBN with four commissioned and, at least, one other under construction). Of which, the *Jin*-class (Type 094), which carries the JL-2 SLBM, marks China's "first credible at-sea second-strike nuclear capability".[28] Furthermore, China is also planning to build a next-generation Type 096 SSBN, which is reported to be armed with the follow-on JL-3 SLBM. And so far, as noted, the PLA Navy's (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 (guided missile submarines).[29]

In addition, China is working to develop ballistic missile defences consisting of kinetic-energy exo-atmospheric and endo-atmospheric interceptors. To cite a few examples, the HQ-19 mid-course interceptor has been undergoing tests in 2016 to verify its capability against the 3,000 km-class ballistic missile, and an HQ-19 unit may have begun preliminary operations in western China. China has also built indigenous radars—the JY-27A and JL-1A—which reportedly provide target detection for the system. In addition, China has also fielded the SA-20 PMU2 Surface-to-Air Missiles (SAMs) and future S-400 SAMs, which may have some capability to engage ballistic missiles, depending on the interceptors and supporting infrastructure.[30]

These increasing developments in the PLARF in both size and strength, exemplify that China keeps the missile force in alignment with its strong military goals and, thus, there is a likelihood of its stepping up the nuclear modernisation process. Given this active preparation at play, it further clarifies that the PLARF acts as a key cornerstone for safeguarding China's national security.

Conclusion

In an overall assessment, the growth of the PLARF since its elevation from the SAF and the undergoing military modernisation clearly posit that it acts as a pivot in Beijing's security and strategic outlook. The incremental growth in both size and strength validate the evolving status of the PLARF in China's strategic calculus in terms of containing the threat of use of force as well as advancing China's claims by power projection. However, owing to its growing profile and amassing of power against growing security challenges, the biggest dilemma for China lies in outlining 'how and when to use nuclear weapons' in the changing security dynamics. In this regard, China's long standing 'no first use' policy and its stated defensive posture is likely to undergo significant shifts. Therefore, it can be rightly argued that the PLARF acts as a 'trump card' in China's security arsenal.

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Notes

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