Centre for Air Power Studies (CAPS)
Forum for National Security Studies (FNSS)
29/20

China's Nuclear Ambiguity and the Risk of Deterrence Breakdown

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Keywords: China, Nuclear Deterrence, CPGS, PLARF, Nuclear Ambiguity

China's nuclear strategy is known to be based on the concept of limited deterrence;[1] It's leaders embrace the idea that the presence of a small number of nuclear warheads is enough to deter nuclear attack and counter nuclear blackmail. At present, China's estimated nuclear stockpile consists of about 320 warheads.[2] This minimalist approach can be, ostensibly, relatively less risky when compared with dangers associated with maximalist nuclear strategies pursued by the United States and Russia, where each has 5,800 and 6,375 warheads respectively.[3] In recent times, however, several of China's attempts to protect its limited arsenal in the face of the United States' nuclear modernisations have in turn increased the risks inherent in its nuclear strategy.

A crucial requirement of the strategy of limited deterrence is the survivability of the existing nuclear assets against the first nuclear strike by an adversary. From the beginning, the Chinese leadership has maintained a degree of ambiguity with regards to various aspects of their nuclear strategy, such as the warhead count and the characteristic of deployed weapons in order to protect the small size of the arsenal. The growing emphasis within the United States to develop the Conventional Prompt Global Strike (CPGS) system along with the presence of its Ballistic Missile Defence (BMD) systems put additional challenges to China's deterrence.

The CPGS capability, which can include long-range ballistic missiles or boost-glide systems and scramjet-powered hypersonic cruise missiles, allows the United States to attack high-value targets or fleeting targets at the start of or during a conflict;[4] The BMD, on the other hand, consisting of its National Missile Defense (NMD) and advanced Theatre Missile Defense (TMD) in East Asia, allows the United States to intercept an incoming adversary missile. Lora Salmaan, an expert on China's nuclear weapons programmes, notes that "the Chinese analysts view CPGS as part of a larger US effort to achieve 'absolute security', with BMD as the shield and CPGS as the sword - such that Washington is able to act pre-emptively".[5]

China has responded to these challenges by further complicating its nuclear ambiguity through 'entangling' or mixing its conventional weapons technologies with its nuclear weapons and its associated command and control systems. [6] Nuclear entanglement, as a tactic, is designed to confound an adversary that can potentially attempt a pre-emptive strike. [7] By deliberately mixing the two capabilities, states attempt to create uncertainty for the adversary, and thereby raise the risk of nuclear escalation. This tactic, in turn, enhances the state's own deterrence.

China has entangled its nuclear weapons through the deployment of dual-use weapons as well as the commingling of both the nuclear and conventional missile forces within the People's Liberation Army Rocket Force (PLARF). Its DF-26 Intermediate-Range Ballistic Missile (IRBM), DF-21 Medium-Range Ballistic Missile (MRBM), along with possibly the DF-17 Hypersonic Glide Vehicle (HGV) can carry both conventional and nuclear payloads, and therefore, can cause warhead ambiguity.

Nuclear entanglement by dual-use weapons can be risky as during the 'fog of war', any mischaracterisation of a nonnuclear weapon as a nuclear one could potentially lead to nuclear escalation. For instance, an adversary might target a DF-26 battalion, perceiving it to be a conventional one. However, Chinese decision-makers may conclude this to be a counterforce nuclear attack, in case any of those DF-26 launchers were carrying out a nuclear role, and thereby escalate accordingly.[8] China's hypersonic missiles also carry similar risks as they follow an unpredictable trajectory and travel at speeds exceeding Mach 5 (6,100 km an hour), and thereby cause destination and warhead ambiguity. An adversary may reason an incoming hypersonic missile to be nuclear and may immediately issue a retaliatory strike under 'use-or-lose' pressures.

The comingling of China's nuclear and conventional missiles forces also comes with another set of risks, and has generated concerns amongst its adversaries. The recent US 'Annual Report to Congress: Military and Security Developments Involving the People's Republic of China 2019' remarked that the commingling could "complicate deterrence and escalation management during a conflict". It warned that "a potential adversary attack against Chinese conventional missile force-associated Command and Control (C2) centres could inadvertently degrade Chinese nuclear C2 and generate nuclear use-or-lose pressures among China's leadership".[9]

Of late, China has evinced interest in developing space-based early-warning reconnaissance capabilities in order to detect a boost-glide weapon shortly after launch. It may further pave the way for launch on warning or launch under attack nuclear posture.[10] Although China, at present, keeps its nuclear weapons de-mated and dispersed; it is, nevertheless, financially and technologically capable of developing and deploying such systems.[11] Any

move in that direction, especially given China's ambiguous nuclear weapons programme, could heighten the potential for a false alarm.

Both the US and Russia use early warning systems and have had a history of false alarms that brought the two countries to a nuclear close call on multiple occasions. However, unlike the US and Russia, which were involved in several bilateral nuclear arms control arrangements when those incidences occurred, China has not adopted any such confidence-building measures with its nuclear adversaries. Their lack can lead to building up of tensions and mistrust, which can predispose China into similar situations of false warnings.

Finally, looking at the bigger picture, all the above developments are taking place within a global scene that is fast becoming unconducive to strategic stability; The US withdrawal from the Intermediate-Range Nuclear Forces (INF) Treaty, a bilateral agreement between Washington DC and Moscow to ban the use of missiles with ranges between 500 and 5,500 kilometres, in 2019 marked the crumbling arms control architecture. Further, the introduction of various technologies, such as hypersonic missiles as well as multiple independently re-entry Vehicles (MIRV), has intensified the offence-defence spiral, not just between the United States and China, but also with regards to their other nuclear adversaries, namely Russia and India respectively. China might be unwilling to enter into an arms control agreement with the United States and Russia, until it attains parity with them in terms of the size of the nuclear arsenal. In fact, as China enters into more difficult relations with the United States, there is an incipient debate in China regarding enhancing its warhead count and nuclear posture.

The increase in the nuclear risks posed by China's nuclear ambiguity, which further get exacerbated by the existing global arms control situation cannot be over-looked. There is a need to find ways to develop collective and cooperative risk-mitigation measures to reduce the chances of deterrence breakdown.

(Disclaimer: The views and opinions expressed in this article are those of the author and do not necessarily reflect the position of the Centre for Air Power Studies [CAPS])

Notes

[1] Johnston, Alastair Iain. "China's New "Old Thinking": The Concept of Limited Deterrence." *International Security* 20, no. 3 (1995): 5-42. Accessed August 7, 2020. doi:10.2307/2539138.

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[3] Ibid.

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[7] Ibid.

[8] "China's New DF-26 Missile Shows Up At Base In Eastern China." Federation Of American Scientists. Accessed August 8, 2020. https://fas.org/blogs/security/2020/01/df-26deployment/.

[9] Office of the Secretary of Defense. *Annual Report to Congress: Military and Security Developments Involving the People's Republic of China in 2019*. 2019. https://media.defense.gov/2019/May/02/2002127082/-1/-1/

[10] Kulacki, Gregory. *China's Military Calls for Putting Its Nuclear Forces on Alert*. Union of Concerned Scientists, 2016. https://www.ucsusa.org/sites/default/files/attach/2016/02/China-Hair-Trigger-full-report.pdf.

[11] Ibid.