

Domestic Factors Could Accelerate the Evolution of China's Nuclear Posture

Since its first nuclear test in October 1964, China has maintained a modest strategic force designed to achieve limited deterrence goals. It has maintained a no-first-use policy and the ability to impose *some* risk of a second strike to deter attack. China's restrained posture has made it an outlier in the nuclear world. In recent years, however, new trends have turned China's outlier status on its head: While the United States and Russia have reduced their nuclear inventories, China has *increased* its strategic missiles and warheads and dramatically improved the quality of its force (Figure 1). China appears to be moving from a modest strategy of minimum deterrence toward a more robust strategy of assured retaliation, although China itself has not used either label (and talks instead about its requirement for a "lean and effective" nuclear deterrent). Although China is unlikely to change formal policy, it is developing capabilities that may ultimately allow it to engage in limited nuclear warfighting.

RAND Project AIR FORCE analysis finds that, while the strategic relationship with the United States continues to be the primary driver of the shift in China's nuclear policy, a range of international and domestic drivers is likely to accelerate

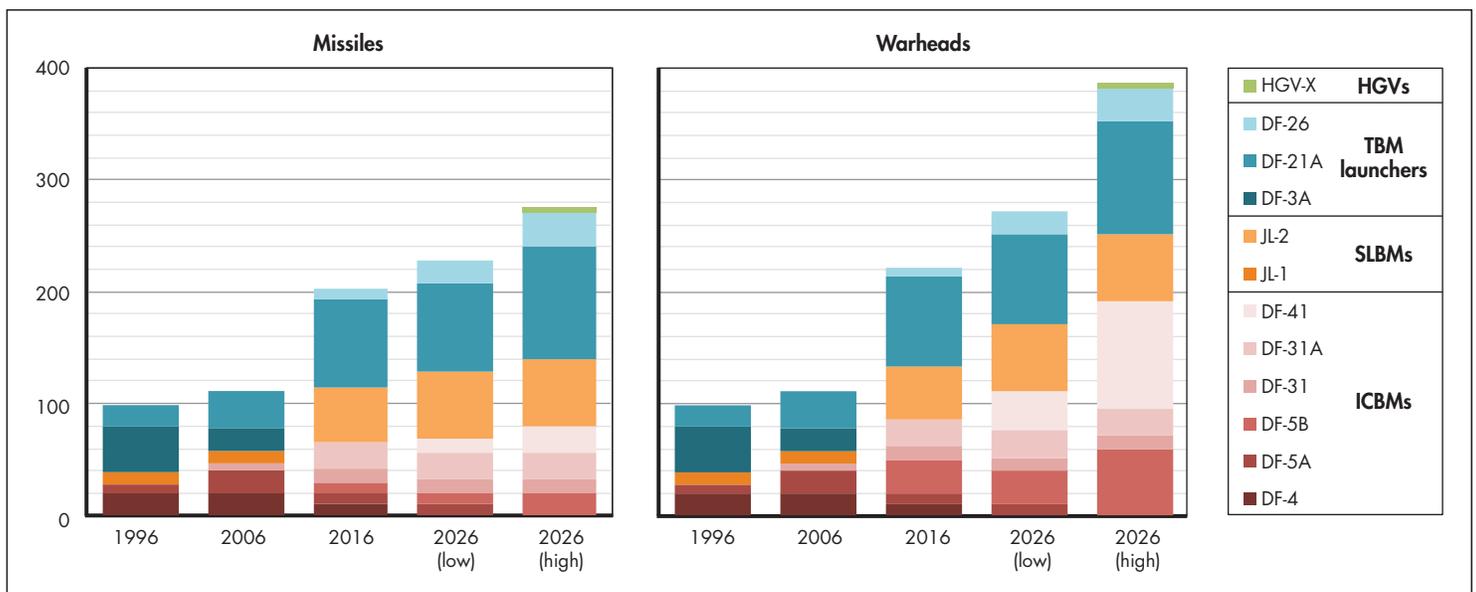
Key findings:

Domestic drivers are likely to accelerate China's nuclear modernization over the coming decade:

- Increased bureaucratic influence over nuclear force planning and policymaking
- Elevation of nuclear constituencies within the PLA
- Lack of organizational firewalls to prevent advances in conventional capability from influencing nuclear force structure.

this trend over the coming decade. This brief focuses on three internal factors that could influence China's nuclear direction: (1) a gradual shift from direct political control of nuclear policy to involvement by more-bureaucratic actors, (2) an increase in the size and status of the nuclear constituency within the

Figure 1. China's Strategic Missiles and Warheads



NOTE: HGV = hypersonic glide vehicle, TBM = theater ballistic missile, SLBM = submarine-launched ballistic missile, ICBM = intercontinental ballistic missile.

People's Liberation Army (PLA), and (3) the lack of organizational firewalls to prevent advances in conventional capability from influencing nuclear force structure and creating pressure for changes in policy. These factors are consistent with the unitary-actor, bureaucratic-politics, and bureaucratic-process models familiar to policy analysts, but they have not been applied systematically to the study of Chinese strategic forces.

Increased Bureaucratic Influence over Military Policy

Since 1949, Chinese political leadership has largely conformed to the *rational-actor model*, in which the state behaves as a logical, unitary actor in response to external threats, pressures, and opportunities. The first generation of political leaders in the People's Republic had the confidence and means to direct military policy, as well as a clear consensus that only a small arsenal of nuclear weapons with limited capability was needed to achieve their deterrence aims. These views were translated into policies that limited the scale of China's nuclear force-building. There is circumstantial evidence that senior leaders have, on at least two occasions, vetoed or postponed the deployment of capabilities (the neutron bomb and multiple independently targetable reentry vehicles [MIRVs]) that were within China's technological means but would have represented a significant evolution in posture. In both cases, the scientific and military impetus was unable to drive acquisition and deployment in the absence of political support.

Changes in Chinese leadership patterns since the mid-1980s have opened the state's nuclear policymaking to greater influence from bureaucratic actors with narrower interests. Following his accession to power in 1978, Deng Xiaoping established regulations and procedures that would prevent one-man rule and encourage adherence to collective leadership under the Politburo Standing Committee. There has been a long-term trend toward the "regularization," or bureaucratization, of government, with the composition, roles, and functions of different actors being better defined and, to an extent, respected in policymaking. These phenomena have extended into the military realm. Once, the members of the Central Military Commission were appointed and replaced at the whim of the party chairman, but both the size and composition of the body are now stable, with key military organizations being institutionally represented. Moreover, since the generation of Chinese leaders associated with Jiang Zemin assumed power in 1989, civilian leaders have come to office with far less military experience and knowledge than their predecessors and have been more dependent on advisers and the military itself for information and expertise.

Chinese interlocutors almost uniformly suggest that military officials now have a larger role than they once did in key executive committees charged with nuclear procurement issues. Given these conditions, China's military bureaucracy is likely to have greater scope to influence nuclear policy, especially as the organizations responsible for nuclear forces assume more-prominent roles within that bureaucracy.

Elevation of Nuclear Constituencies Within the Military Bureaucracy

The PLA has traditionally been dominated by the army, with the other services playing supporting roles. Over the years, however, the PLA Second Artillery Force (PLASAF) gained greater institutional standing. In 2015, the PLASAF was renamed as the Rocket Force and elevated from a military branch [兵种] to a military service [军中]. Former PLASAF officers were also appointed to the command and deputy command of the new Strategic Support Force, which gained control over most Chinese military satellites and cyber and information warfare functions. The change in formal status, and the political endorsement of the missile forces that has gone with it, will presumably make the Rocket Force a more capable advocate for nuclear weapons and delivery systems, for support systems that may still be lacking (such as space-based early warning systems), and for more flexible interpretation of policy and doctrine.

It is unlikely that Xi Jinping's military reforms are complete, and it is unclear what future developments might hold. Some Chinese commentators have suggested that the PLA Rocket Force may ultimately be given responsibility for all Chinese nuclear forces, including submarine and future bomber elements, while others (probably more realistically) suggest that it may gain control of the ballistic missile defense mission. Either of these developments would have momentous consequences from the standpoint of bureaucratic politics, further elevating and unifying advocacy for both nuclear and conventional strike.

Whether or not the Rocket Force gains control of additional parts of the force structure, advocacy for a robust nuclear posture is likely to grow stronger in the years ahead. With the deployment of a substantial fleet of *jin*-class ballistic missile submarines, the PLA Navy's interests in China's nuclear deterrent and deterrent posture have also increased. The PLA Air Force has restyled itself as a "strategic air force," and although it has not stipulated a requirement for nuclear weapons, it will almost certainly push for long-range bombers that would be capable of delivering nuclear weapons. This bureaucratic landscape, combined with an international nuclear environment that Chinese strategists characterize as

increasingly complex and challenging, is fertile ground for the further growth of Chinese nuclear capabilities. What kinds of capabilities are developed may be partly determined by organizational inertia and processes.

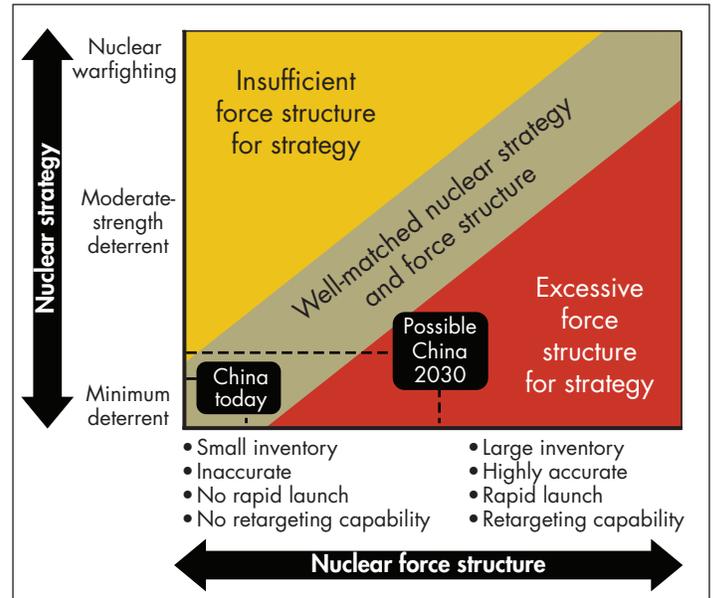
Lack of Organizational Firewalls Between Conventional and Nuclear Forces

At its inception, the PLASAF was charged exclusively with operating nuclear-armed missiles. For many years, Chinese nuclear forces were characterized by poor accuracy, long launch times, and a low-alert posture that prioritized tight control of nuclear warheads above survivability. These characteristics were consistent with China's minimum-deterrent doctrine and no-first-use policy: Such a strategy requires only a small number of missiles to survive an attack and emerge capable of hitting countervalue targets, such as cities and industrial centers, which do not require quick response or great accuracy. The same limitations do not apply to the PLASAF's *conventional* missile strike mission, which it assumed in the mid-1990s. Recent technological advances have greatly improved the survivability, accuracy, and dynamic targeting capability of Chinese conventional missiles.

There are effectively no organizational firewalls between the conventional and nuclear elements of the force; uniformed personnel move back and forth between the two, and the force shares common research and development facilities and production lines. Consequently, in the absence of a strong political directive opposing such a move, advances in conventional capability are likely to be applied to the nuclear forces. Capabilities might include greater missile accuracy to hit and destroy hardened counterforce targets; dynamic retargeting integrated with intelligence, surveillance, and reconnaissance networks to enable nuclear forces to attack targets of opportunity; the ability to coordinate and launch large salvos; and the exercise of launchers under battlefield conditions.

Individually, these capabilities will enhance China's ability to retaliate to a nuclear threat. Existing Chinese doctrinal writings already call for the ability to survive on a nuclear battlefield and to deliver "waves" of counterstrikes, even if China has never had the capability to execute such doctrine. When combined, these improved capabilities could also provide Chinese policymakers with a wider range of strategy options, up to and including a limited warfighting capability (Figure 2)—for example, the ability to respond flexibly for the purposes of escalation control or, potentially, damage-limiting strikes against a second-tier nuclear competitor. New capabilities could prompt Chinese nuclear commanders to advocate for a *de facto* adjustment of nuclear

Figure 2. China's Strategy Options



operating concepts and doctrines, even if the capabilities themselves were not developed specifically for these purposes.

According to a rational-actor interpretation, an evolution toward a more capable nuclear force would be a clear indication that China's leaders intend to move beyond a strict minimum deterrence strategy. But such changes could simply be the result of an organizational proclivity for continued incremental modernization. The two possibilities are not mutually exclusive; more important, the implications would be the same. Even if senior civilian leaders remained committed to the historically limited view of nuclear requirements (an open question), today's leaders appear less involved in detailed oversight than their predecessors, opening the door to heavier influence from scientific and bureaucratic actors.

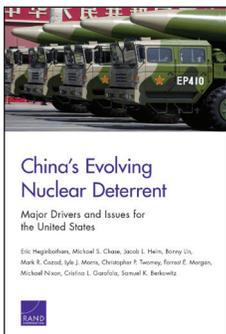
Implications for the United States

These internal factors, along with international drivers discussed in the main report, have the potential to drive Chinese nuclear forces, policy, and doctrine in directions that challenge U.S. and regional security interests. The enhancement of Chinese nuclear capabilities, together with a shifting conventional balance, is likely to affect regional perceptions of Chinese intentions, its no-first-use policy, and the credibility of U.S. commitments. U.S. officials should be prepared for allies and partners to ask for clearer statements on extended deterrence, as well as material nuclear arrangements (e.g., requests for the redeployment of U.S. tactical nuclear weapons in the region). The evolving nuclear balance may

also affect competition and conflict at lower levels, particularly in the gray-zone conflicts that have come to characterize international politics in East Asia. Chinese leaders may push regional claims harder on the understanding that the United States has fewer escalation options.

Even as U.S. leaders take measures to reassure allies and partners, they should also engage China on developments

most likely to diminish stability, increase escalation risks, or undermine prospects for arms control. Washington and Beijing still have common interests in avoiding unstable nuclear arrangements, and dialogue may encourage China's political leaders to take a hand in shaping nuclear developments in ways that are less likely to undermine its stated policies.



This research brief describes work done for RAND Project AIR FORCE documented in *China's Evolving Nuclear Deterrent: Major Drivers and Issues for the United States*, by Eric Heggenbotham, Michael S. Chase, Jacob L. Heim, Bonny Lin, Mark R. Cozad, Lyle J. Morris, Christopher P. Twomey, Forrest E. Morgan, Michael Nixon, Cristina L. Garafola, and Samuel K. Berkowitz, RR-1628-AF, 2017 (available at www.rand.org/t/RR1628). To view this brief online, visit www.rand.org/t/RB9956. The RAND Corporation is a nonprofit research institution that helps improve policy and decisionmaking through research and analysis. RAND's publications do not necessarily reflect the opinions of its research clients and sponsors. **RAND**® is a registered trademark.

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