

TESTIMONY

STRATEGIC FORCES SUBCOMMITTEE OF THE SENATE ARMED SERVICES COMMITTEE HEARING ON REGIONAL NUCLEAR DETERRENCE

28 March 2023

**Statement by Dr. Evan Braden Montgomery
Senior Fellow and Director of Research and Studies
Center for Strategic and Budgetary Assessments**

Chairman King, Ranking Member Fischer, and distinguished members of the subcommittee: thank you for the opportunity to participate in this hearing and share my thoughts on regional nuclear deterrence. Specifically, I would like to focus my remarks on the potential consequences of China's nuclear modernization, which could have enormous implications for strategic stability between the major powers, extended deterrence commitments to U.S. allies, and the character of threats to frontline states like Taiwan.

Background

For more than a decade, China's conventional military modernization has been upending the balance of power across the Indo-Pacific region. The People's Liberation Army (PLA) has been developing and fielding a variety of capabilities—combat aircraft, surface naval assets, submarines, and ballistic and cruise missiles, among others—that seriously threaten its neighbors and could be used to target U.S. bases, ports, and forward-operating forces. This shift in the balance of power has raised questions about Washington's ability to deter the use of force against its allies and partners, as well as its capacity to defeat an assault if deterrence were to fail.¹

¹ See, for example, Evan Braden Montgomery, "Contested Primacy in the Western Pacific: China's Rise and the Future of U.S. Power Projection," *International Security* 38, no. 4 (2014); Eric Heginbotham et al., *The U.S.-China Military Scorecard: Forces, Geography, and the Evolving Balance of Power, 1996-2017* (Santa Monica, CA: RAND Corporation, 2015); Toshi Yoshihara and James R. Holmes, *Red Star over the Pacific: China's Rise and the Challenge to U.S. Maritime Strategy*, 2nd ed. (Annapolis, MD: Naval Institute Press, 2018); and Eric Edelman and Gary Roughead, Co-Chairs, *Providing for the Common Defense: The Assessment and Recommendations of the National Defense Strategy Commission* (Washington, DC: United States Institute of Peace Press, 2018), 14.

Until recently, China’s nuclear arsenal was a secondary concern. This so-called “minimum deterrent” remained far smaller than either the U.S. or Russian arsenals, appeared to be sized and postured for retaliatory strikes in extreme circumstances, and often received more attention for its apparent vulnerability than its actual strength. That situation, however, is starting to change.

It now appears that China is engaged in a significant quantitative and qualitative nuclear buildup. Beijing has been constructing hundreds of new intercontinental ballistic missile (ICBM) silos; it has tested a fractional orbital bombardment system (FOBS) armed with a hypersonic glide vehicle (HGV); it has introduced a dual-capable intermediate-range ballistic missile (IRBM) capable of precision strikes; and, according to the Department of Defense, it is in the process of expanding its arsenal from more than 400 operational warheads today to 1500 total warheads by 2035.²

Assuming this buildup materializes in full, it would be the catalyst for a major change in the security environment. As the 2022 National Security Strategy notes, “By the 2030s, the United States for the first time will need to deter two major nuclear powers, each of whom will field modern and diverse global and regional nuclear forces.”³

The Meaning of China’s Nuclear Modernization

China’s nuclear buildup could be destabilizing—both regionally and globally—in a variety of ways. Below, I outline three specific areas of concern.

Strategic First Strike

Once China possesses a much larger stockpile of nuclear weapons and a much more diverse array of delivery systems, U.S. officials may need to consider a scenario that was previously implausible: a Chinese first strike against U.S. strategic forces. For instance, accurate and difficult-to-detect systems like China’s HGV-equipped FOBS raise the specter of decapitating attacks against U.S. command-and-control targets. Meanwhile, large numbers of silo-based ICBMs, especially ICBMs equipped with multiple independently targetable reentry vehicles (MIRVs), could pose a disarming threat against U.S. ICBMs, as well as any ballistic missile submarines (SSBNs) in port and strategic bomber forces that have not been generated.

Thankfully, the likelihood of this scenario is extraordinarily low because the demands of a successful first strike are so extraordinarily high. Nevertheless, if China’s arsenal reaches the point that it can pose credible decapitating *and* disarming threats (the combination of which is required for a genuine first strike capability), it cannot be

² Office of the Secretary of Defense, *Military and Security Developments Involving the People’s Republic of China 2022* (Washington, DC: Department of Defense), 94.

³ The White House, *National Security Strategy* (October 2022), p. 21.

discounted entirely—especially if U.S. officials take into account the combined nuclear forces of China and Russia.⁴

Conventional Backstop

The most common explanation for China’s nuclear buildup is that it is designed to neutralize the prospect of U.S. nuclear coercion in a regional crisis and ensure that any fight between the United States and China remains at the conventional level.⁵ This view rests on the logic of the stability-instability paradox—the situation in which a low probability of a strategic nuclear exchange due to mutual vulnerability raises the probability of conventional conflict due to a hard ceiling on escalation.⁶ From Beijing’s perspective, therefore, a larger and more survivable strategic deterrent could make a conventional campaign against Washington more tempting because escalation to nuclear use would be less concerning. Under these conditions, the two sides could clash at the conventional level alone—a prospect that might benefit China given the geographic, technical, and operational military advantages it has been working hard to leverage or create.⁷

This situation is certainly a far more plausible risk than the threat of a first strike. Nevertheless, China would still need to be confident that it could suppress Taiwan and succeed in a clash with the United States—two very costly courses of action no matter how many improvements the PLA makes.

Theater Nuclear Threats

Perhaps the biggest risk of China’s nuclear buildup, at least over the long run, is the possibility that it could build the tools to make limited nuclear threats, which could strain US extended deterrence commitments and isolate potential targets of aggression like Taiwan.⁸ According to the 2022 Nuclear Posture Review, “The range of nuclear options available to the PRC leadership will expand in the years ahead, allowing it to potentially adopt a broader range of strategies to achieve its objectives, to include

⁴ Evan Braden Montgomery, “Posturing for Great Power Competition: Identifying Coercion Problems in U.S. Nuclear Policy,” *Journal of Strategic Studies* 45, No. 6/7 (2022).

⁵ Gerald C. Brown, “Understanding the Risks and Realities of China’s Nuclear Forces,” *Arms Control Today*, June 2021, <https://www.armscontrol.org/act/2021-06/features/understanding-risks-realities-chinas-nuclear-forces>.

⁶ Glenn Snyder, “The Balance of Power and the Balance of Terror”, in Paul Seadbury, ed., *Balance of Power* (San Francisco, CA: Chandler Publishing, 1965).

⁷ Caitlin Talmadge, “China and Nuclear Weapons,” *Brookings Institution*, September 2019, 7, https://www.brookings.edu/wp-content/uploads/2019/09/FP_20190930_china_nuclear_weapons_talmadge-1.pdf.

⁸ See Evan Braden Montgomery and Toshi Yoshihara, “The Real Challenge of China’s Nuclear Modernization,” *The Washington Quarterly* 45, No. 4 (Winter 2023).

nuclear coercion and limited nuclear first use.”⁹ For instance, China could soon be equipped with multiple, highly accurate theater nuclear options, potentially including the DF-21 and DF-26, enabling it to hold many regional targets at risk. Meanwhile, the newly deployed DF-17 medium-range ballistic missile (MRBM) carries an HGV and, according to some reports, might also be capable of delivering nuclear weapons.¹⁰

These capabilities are especially worrisome because they could serve as the foundation for an alternative coercive strategy against Taiwan, one that might look easier, faster, and cheaper than launching a direct invasion of the island and embarking on a large-scale conventional war against the United States. Specifically, if Beijing paired limited nuclear threats with, for example, blockade operations against the island and attacks against its leaders, this would pose major dilemmas for the United States as it determined whether and how to intervene.¹¹

Responding to China’s Buildup

The nuclear buildup that China has embarked upon will have significant consequences for the security environment across the Indo-Pacific region and beyond. Below, I address some specific implications of a potential theater nuclear buildup on Beijing’s part, which has received less attention than the expansion of its strategic forces, but which could require Washington to reconsider the nuclear forces that it requires, the extended deterrence arrangements that it maintains, and the contingencies that it plans for.

Implications for U.S. Nuclear Force Structure

For years, the United States has been concerned about the imbalance in non-strategic nuclear weapons between itself and Russia. Whereas Moscow maintains a diverse arsenal of approximately 2000 non-strategic nuclear weapons and continues to modernize these forces, Washington has a far smaller inventory of non-strategic capabilities.¹² This imbalance has led to concerns about gaps in the so-called escalation ladder that could embolden Russia to levy nuclear threats during a crisis, or even resort to limited nuclear use. It also spurred a decision in the 2018 Nuclear Posture Review to begin investing in supplemental non-strategic nuclear weapons, namely the W76-2 submarine-launched ballistic missile warhead and a nuclear-armed, submarine-

⁹ Department of Defense, *2022 Nuclear Posture Review* (Washington, DC: Department of Defense, 2022), 11.

¹⁰ Hans M. Kristensen and Matt Korda, “Chinese Nuclear Weapons, 2021,” *Bulletin of the Atomic Scientists* 77, no. 6 (2021), pp. 320, 328.

¹¹ Evan Montgomery and Toshi Yoshihara, “Leaderless, Cut Off, and Alone: The Risks to Taiwan in the Wake of Ukraine,” *War on the Rocks*, April 5, 2022, <https://warontherocks.com/2022/04/leaderless-cut-off-and-alone-the-risks-to-taiwan-in-the-wake-of-ukraine/>.

¹² Hans M. Kristensen and Matt Korda, “Russia Nuclear Weapons, 2022,” *Bulletin of the Atomic Scientists*, 78, No. 2 (2022).

launched cruise missile. Yet there might be a similar imbalance on the horizon with respect to China.

If Beijing fields a variety of nuclear-armed theater missile systems, the United States might not have symmetrical, proportional, effective, and credible responses. That, in turn, could leave policymakers in Washington with the choice of responding with conventional forces alone, which might be insufficient under the circumstances, or responding with strategic forces, which might be imprudent given China's ability to retaliate in kind. This dilemma could become especially sharp as Washington's relatively small inventory of non-strategic nuclear weapons would be needed to deter limited nuclear threats by two major power adversaries at the same time.

Implications for Extended Deterrence Arrangements

Theater nuclear forces could also enable Beijing to drive wedges between the United States and its allies and partners.¹³ In other words, Washington could face dilemmas similar to those it confronted during the Cold War, when Soviet investments in theater nuclear systems that could target European allies without striking the U.S. homeland raised "decoupling" concerns that required skillful alliance management to address.¹⁴ If so, the United States might need to consider binding itself and its allies more tightly together—especially if those allies seriously consider the prospect of acquiring independent nuclear capabilities in response to growing threats from China and growing doubts about U.S. extended deterrence commitments.

For instance, United States could pursue bilateral nuclear sharing arrangements with Japan and South Korea, not unlike those that exist with select NATO allies. This type of agreement would entail the United States maintaining custody of nuclear weapons and authority over their release, but allied forces being prepared to participate in the nuclear delivery mission.¹⁵

Implications for U.S. Defense Planning

Lastly, given China's nuclear buildup, the United States will need to be prepared for a wider range of threats. To date, the Department of Defense in particular has focused on the challenges posed by a PLA air and amphibious assault against Taiwan, as well as PLA attacks against U.S. ports, bases, forward-operating forces, and information networks. This is understandable given the character of China's military buildup, the consequences

¹³ Thomas G. Mahnken, Gillian Evans, Toshi Yoshihara, Eric S. Edelman, and Jack Bianchi, *Understanding Strategic Interaction in the Second Nuclear Age* (Washington, D.C.: Center for Strategic and Budgetary Assessments, 2019), pp. 79-81.

¹⁴ Eric Edelman, Josh Chang, and Tyler Hacker, *Arming America's Allies: Historical Lessons for Implementing a Post-INF Treaty Missile Strategy* (Washington, DC: Center for Strategic and Budgetary Assessments, 2022).

¹⁵ Evan Montgomery, *Extended Deterrence in the Second Nuclear Age: Geopolitics, Proliferation and the Future of U.S. Security Commitments* (Washington, DC: Center for Strategic and Budgetary Assessments, 2016), 33-35.

of these threats for regional security, and their implications for U.S. defense strategy and defense spending. Yet China's nuclear buildup could open up new avenues of coercion against Taiwan, some of which—like the early resort to limited nuclear threats in lieu of invasion—could appear appealing to leaders in Beijing while posing considerable difficulties for policymakers in Washington.

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