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**Why China Wants More and Better Nukes**

How Beijing’s Nuclear Buildup Threatens Stability

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Recent weeks have seen an explosion of worry in the United States about China’s nuclear program. A [Pentagon report](https://media.defense.gov/2021/Nov/03/2002885874/-1/-1/0/2021-CMPR-FINAL.PDF) released in early November warned that China is “accelerating the large-scale expansion of its nuclear forces” and building a larger, diversified, and more sophisticated nuclear arsenal. The report follows news that China tested a nuclear-capable hypersonic space weapon this summer, which General Mark Milley, chairman of the Joint Chiefs of Staff, described as “very close” to a “Sputnik moment.”

China’s push to enlarge and improve its nuclear arsenal is not terribly surprising in light of long-standing principles of China’s nuclear strategy and Chinese President Xi Jinping’s ambitions to build a “[world-class military](https://ndupress.ndu.edu/Publications/Books/Chairman-Xi-Remakes-the-PLA/)” by the middle of this century. But these developments should nevertheless be concerning for the United States and its allies.

The main reason to be worried is that Beijing’s expanded and improved nuclear arsenal puts the United States and China into a deeper condition of nuclear stalemate in which both sides are vulnerable to the other’s nuclear forces, no matter who strikes first. It may seem paradoxical, but this nuclear stalemate might lead to more rather than less risk-taking by Chinese leaders: they could come to see conventional attacks or nonmilitary gray-zone aggression as a “safer” option, carrying little risk of nuclear escalation. That could mean a heightened likelihood of war.

In the face of these expanding Chinese capabilities, the United States will need to strengthen conventional deterrence by carefully prioritizing investments that credibly back its extended deterrence guarantees at both the nuclear and the conventional levels. The United States should also redouble efforts to reassure allies through high-level discussions and remain open to the possibility of direct dialogue with Beijing.

**A BIGGER ARSENAL**

China has had the bomb since 1964, but for decades its nuclear arsenal was small and vulnerable to being destroyed. Even in the 1980s, [China](https://www.foreignaffairs.com/articles/china/2021-04-20/how-not-win-allies-and-influence-geopolitics) had considerably fewer nuclear warheads than France or the United Kingdom, and Beijing’s missiles could have barely reached Moscow or Washington. China’s nuclear force was largely based in underground silos with fixed, known locations, and its weapons required lengthy, detectable preparations before launch, all of which undermined their survivability in a crisis or war.

Over the last few decades, however, China has made significant investments to improve its nuclear forces. Although its arsenal remains far smaller and less sophisticated than those of the United States or Russia, the Pentagon now [assesses](https://media.defense.gov/2021/Nov/03/2002885874/-1/-1/0/2021-CMPR-FINAL.PDF) that China may have up to 700 deliverable warheads by 2027 and is likely seeking to have at least 1,000 warheads by 2030.

According to the Pentagon, China is also building increasingly sophisticated delivery systems for these warheads, including the nuclear-capable hypersonic glide vehicle (HGV) atop what is called a fractional orbital bombardment system (FOBS) that China apparently tested this summer. A FOBS, first deployed by the Soviet Union during the Cold War, allows a nuclear weapon to take a less predictable path and therefore become more difficult for U.S. missile defense systems to intercept. Other capabilities Beijing is pursuing include a nascent nuclear triad, which would give the country the means to launch nuclear weapons from the air, sea, and land, as the United States and Russia have both been able to do for decades. China’s emerging force structure includes mobile intercontinental ballistic missiles (ICBMs) capable of carrying multiple nuclear warheads; mobile intermediate-range ballistic missiles (IRBMs) that can conduct both nuclear and conventional strikes with precision; a nuclear-capable air-launched ballistic missile; and China’s first nuclear-capable air-to-air refuelable bomber. The Pentagon also assesses that China is developing a new stealth bomber with a nuclear mission and is building at least three modern ICBM silo fields that could house hundreds of new missile silos in total. In addition, the Pentagon warns that Beijing likely intends to increase “the peacetime readiness of its nuclear forces by moving to a launch-on-warning (LOW) posture.”This would mean that China might be willing to immediately launch its own nuclear weapons in response to a warning of an incoming attack before enemy nuclear weapons had landed on Chinese soil—a policy that could risk dangerous miscalculations if the early warning information is wrong.

**NUCLEAR BACKSTOP**

Due to the opacity surrounding China’s nuclear ambitions, some U.S. and allied observers fear that China will abrogate its “no first use” (NFU) policy, which pledges that [China](https://www.foreignaffairs.com/articles/united-states/2021-02-05/kevin-rudd-usa-chinese-confrontation-short-of-war) will never use nuclear weapons first in a conflict. These fears intensified in September when former senior Chinese diplomat Sha Zukang [called](https://www.thetimes.co.uk/article/china-should-end-ban-on-first-use-of-nuclear-weapons-says-envoy-0mskmzh8j) for China to abandon the pledge. Some have pointed to China’s recent hypersonic missile test, in particular, as raising the prospect of China being able to launch a surprise nuclear attack on the United States.

Yet concerns that China’s leaders would consider a nuclear first strike are overblown. This is not because of China’s NFU policy. Rather, it is because no matter how many silos or airfields Beijing may hope to destroy, Chinese strategists know that their country would, at a minimum, still be vulnerable to the U.S. Navy’s 14 Ohio-class ballistic missile submarines, each of which carry up to 20 ballistic missiles.

Furthermore, since China tested its first nuclear weapon in 1964, Beijing has consistently emphasized that the main purpose of its nuclear arsenal was to avoid being coerced by nuclear-armed opponents—what Mao Zedong referred to as “nuclear blackmail.” Chinese leaders sought to build strategic forces that could credibly threaten a second-strike retaliation, which they saw as sufficient to deter a nuclear attack or nuclear threats against China. Indeed, Chinese leaders during the Cold War decried the arms race between the United States and the Soviet Union, vowing not to participate.

China’s nuclear modernization today is not necessarily a significant departure from this thinking. Rather, China likely wants to be sure that the United States cannot destroy all of the country’s nuclear forces in a so-called splendid nuclear first strike. Chinese strategists apparently worry that prodigious U.S. counterforce capabilities, both nuclear and conventional, could obviate China’s nuclear deterrent, especially when combined with U.S. missile defenses they fear could “mop up” residual Chinese missiles fired in retaliation.

China’s silos are ultimately very vulnerable to a U.S. attack, but they do significantly expand the number of targets the United States would have to hit in order for a first strike to completely disable China’s nuclear retaliatory capability. The new silos’ locations and hardened construction would likely force the United States to use nuclear weapons to attack them. In essence, adding more ICBM silos raises the bar for the United States to attempt to successfully conduct a counterforce strike—a bar that [China](https://www.foreignaffairs.com/articles/china/2020-12-04/chinese-communist-party-failed) may believe was lowered in recent years given reported U.S. advances that would greatly enhance the destructive power of U.S. nuclear warheads and put hardened targets, such as missile silos and nuclear command centers, at greater risk.

The capabilities demonstrated in the orbital hypersonic test in July fit with this logic, revealing that China has the ability to strike the United States with conventional or nuclear weapons from an unpredictable trajectory and possibly in a manner that reduces U.S. warning. This new system could help China ensure that even if the United States attacked with a nuclear first strike, some of China’s remaining forces would still be able to attack the United States, because missile defenses would likely not be able to protect the U.S. homeland against this delivery system. The thinking is that the United States would then be deterred from trying to coerce China with nuclear threats, because there would be no way for the United States to protect its homeland if such threats escalated into a nuclear war.

**A NEW BOLDNESS**

In isolation, China’s efforts to improve the survivability of its nuclear forces might be seen as stabilizing; this is, after all, the logic of nuclear deterrence. If neither side can protect its population from devasting retaliation, even by striking first, then both sides face a very strong rational incentive not to deliberately start a nuclear war, which should be a stabilizing development. Yet in the context of China’s broader military modernization efforts, China’s improved nuclear capabilities have significant implications for the ability of the United States to maintain conventional military deterrence in Asia.

China seeks to build a conventional force capable of establishing temporary military superiority over the United States in a specific geographic area and for a period of time sufficient to achieve its military and political objectives. Although the primary focus of China’s ambitions is [Taiwan](https://www.foreignaffairs.com/articles/taiwan/2021-10-05/taiwan-and-fight-democracy), the same principle applies to other disputed areas in the East China and South China Seas that may elicit an armed U.S. intervention: China seeks to build the capability to successfully conduct a short, sharp, conventional war. This sort of campaign would quickly seize objectives, executing a fait accompli that would force the U.S. military to then eject Chinese forces from the seized territory in a costly fight.

U.S. conventional military advantages have been diminishing for years due to the improving reach and capabilities of China’s forces, but Chinese strategists have had to worry that in extremis, the United States might still resort to nuclear threats to defend its interests. As explained [by the Pentagon in 2019](https://media.defense.gov/2019/Apr/01/2002108002/-1/-1/1/DANGERS-OF-A-NO-FIRST-USE-POLICY.PDF), “operational scenarios exist in which the U.S. would consider first [nuclear] use.” This means that even though the potential for a conventional Chinese military victory has increased, U.S. deterrence has held in part because Beijing has known that its odds of prevailing in a crisis that escalated to nuclear bargaining were low, because China’s nuclear forces were simply too small and vulnerable.

China’s nuclear improvements seem aimed at reducing these shortcomings. By limiting the vulnerability and increasing the numbers of its nuclear forces, Chinese strategists may grow more confident that the Chinese military can challenge the United States or its allies conventionally, with little fear that the United States would resort to nuclear escalation.

An environment that is more favorable to conventional military aggression by China will have profound implications for U.S. allies and partners in the Indo-Pacific. Although [Taiwan](https://www.foreignaffairs.com/articles/china/2021-06-03/china-taiwan-war-temptation) will be most directly affected by these dynamics, the increased potential for Chinese adventurism will also be deeply concerning for Japan and several countries in Southeast Asia that dispute China’s claims of sovereignty over much of the South China Sea. Left unaddressed, these dynamics could lead U.S. allies and partners to fear that China could successfully seize a disputed island or Taiwan itself and deter the United States from effectively responding. While Beijing would certainly prefer that these countries react to these developments by accommodating Beijing’s interests and distancing themselves from the United States, most U.S. allies and partners have done the opposite: Australia, Japan, Taiwan, and several countries across Southeast Asia have deepened their relations with the United States over the last several years.

Several U.S. allies and partners have also significantly increased investments in their own conventional military capabilities in order to demonstrate to Washington that they will make meaningful contributions to their own self-defense—and to serve as a hedge against the possibility of U.S. abandonment. Australia increased its 2021 defense budget by more than six percent over the previous year to nearly $33 billion, just one year after its [Defense Strategic Update](https://www.aspistrategist.org.au/defence-budget-climbs-to-44-6-billion/) noted that “only the nuclear and conventional capabilities of the United States can offer effective deterrence against the possibility of nuclear threats against Australia.” Yet this same document also called for the Australian Defense Force to “grow its self-reliant ability to deliver deterrent effects”—with some Australian scholars [assessing](https://www.aspistrategist.org.au/anzus-at-70-extended-nuclear-deterrence/) that Canberra was reflecting concerns about “the broader durability of the US alliance system in general, and the waning credibility of US extended nuclear deterrence in particular.”

Japan’s government has similarly requested a record $50 billion defense budget, with its most recent [Defense White Paper](https://www.mod.go.jp/en/publ/w_paper/index.html) assessing that “uncertainty over the existing order is increasing.” “Military powers with high quality and quantity are concentrated in Japan’s surroundings,” it noted, and “China is continuing and strengthening its unilateral attempts to change the status quo by coercion near the [Chinese-claimed] Senkaku Islands,” a group of uninhabited islands in the East China Sea known in China as the Diaoyu Islands. This reflects profound concerns in Tokyo about the potential for Chinese aggression and is a significant shift for a country with a pacifist constitution that for decades has been reasonably comfortable relying on U.S. extended deterrence commitments.

Taiwan also announced plans to increase its defense budget to nearly $26 billion for 2022, a remarkable increase from $10.7 billion in 2018,with its defense ministry stating, “In the face of severe threats from the enemy, the nation’s military is actively engaged in military building and preparation work, and it is urgent to obtain mature and rapid mass production weapons and equipment in a short period of time.”

Most concerning from the perspective of potential [nuclear proliferation](https://www.foreignaffairs.com/articles/japan/2016-07-26/let-them-make-nukes), debates about the acquisition of their own nuclear weapons have become more mainstream in Australia, Japan, South Korea, and Taiwan. A deeper nuclear stalemate between the United States and China is likely to accelerate this nascent interest in autonomous nuclear capabilities if allies come to believe that the U.S. security umbrella is becoming less reliable against not only nuclear but also conventional threats.

**BUILD DETERRENCE BACK BETTER**

Given the dramatic growth of China’s conventional and nuclear military capabilities, combined with deepening concerns surrounding the reliability of U.S. extended deterrence commitments among Indo-Pacific allies and partners, the United States should consider new initiatives to reinforce deterrence. These include significant improvements to the U.S. force posture across the Indo-Pacific and greater investments in conventional capabilities that would buttress the ability of the United States to prevent a Chinese fait accompli, representing a shift in regional conventional strategy from “deterrence by punishment” to “deterrence by denial.” It should also take steps to improve the perceptions of American resolve and commitment in the region in the minds of allies, partners, and adversaries alike.

The potential for increased Chinese conventional adventurism means the United States should focus its investments in capabilities that would deny Chinese efforts to establish temporary military superiority over the islands also claimed by U.S. allies and partners and prevent China from executing a fait accompli. It will require working with allies and partners to develop a revitalized and distributed regional military posture across the Indo-Pacific that is effective, flexible, survivable, and both politically and fiscally sustainable. The potential for Chinese military expansion will also force U.S. strategists to make difficult choices about accepting greater degrees of risk in other parts of the world—especially with no expected significant increases in U.S. defense spending.

Washington should also recognize that its existing mechanisms to reassure U.S. allies in the region of its extended deterrence commitments are under increasing strain. In Europe, the United States has reassured its allies for decades by involving them in regular, high-level discussions about nuclear policy through the NATO Nuclear Planning Group (NPG). But there is no similar forum for the Indo-Pacific. Instead, the United States established a decentralized series of midlevel, bilateral Extended Deterrence Dialogues (EDDs) with Japan and South Korea. There is no equivalent mechanism in the U.S.-Australian alliance, and the statement from the most recent U.S.-Australian ministerial consultation included no reference to extended deterrence.

The United States should therefore consider fundamental changes to how it reassures its Indo-Pacific allies. While some have proposed simply copying the NATO model, Washington and its allies need a mechanism that reflects the region’s particular history, politics, and security dynamics. With this in mind, the United States should establish a secretary-level Indo-Pacific Deterrence Dialogue with Australia, Japan, and South Korea to discuss regional security trends and explore options to enhance deterrence. At the same time, the United States should improve its bilateral EDDs by increasing the level of U.S. participation to the deputy secretary level and deepening joint discussions about deterrence and strategic stability. The United States should also work with its Indo-Pacific allies to explore options for increased cooperation in the potential deployment of U.S. strategic capabilities to the region. These could include NATO-style Support of Nuclear Operations With Conventional Air Tactics (SNOWCAT), in which allied fighters escort American nuclear-capable aircraft if called on for a nuclear mission, and other operations that would give U.S. allies a more direct role in supporting U.S. extended deterrence capabilities without needing to develop their own nuclear capacity or capability.

It also makes sense for the United States to pursue diplomatic engagement with the Chinese military on [nuclear issues](https://www.foreignaffairs.com/articles/2018-12-11/would-china-go-nuclear), but it should do so with limited expectations. The United States has sought to have direct discussions with the People’s Liberation Army since the George W. Bush administration, yet aside from a single discussion in April 2008, there has been no direct meeting on nuclear issues between the U.S. military and the PLA. [Beijing](https://www.foreignaffairs.com/articles/china/2019-08-14/party-man) has repeatedly rebuffed past Washington initiatives to discuss these issues or consider China’s participation in multilateral arms control negotiations. It appears that the recent Biden-Xi summit has not changed this trend line, despite continued expressions of interest by the United States.

The accelerating expansion of China’s nuclear arsenal suggests that its leaders have recently decided that its historically small and unsophisticated capabilities were insufficient for Beijing’s needs and ambitions. Although these developments do not necessarily indicate a change in China’s attitude toward using nuclear weapons, they still have profound implications for the United States and its allies and partners across the Indo-Pacific. Washington must begin to make the necessary investments and adjustments—not only militarily but also diplomatically and politically—to adapt to these new strategic realities.