The Specter of Nuclear Anarchy: Rising Risks in a Modern Era

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The global landscape of nuclear security has become increasingly dangerous, reminding policymakers and the public that the threat of nuclear disaster, once thought to be only a Cold War risk, continues to shape international relations. While international norms established by foundational agreements like the Non-Proliferation Treaty (NPT) of 1968 and the Comprehensive Test Ban Treaty (CTBT) have curbed the spread of nuclear weapons, recent geopolitical trends and startling rhetorical shifts suggest these norms are eroding. The evidence is clear: growing tensions between nuclear-armed states are encouraging proliferation and increasing the likelihood of nuclear conflict.

A sudden <u>declaration by President Donald Trump</u> ordering the resumption of American nuclear weapons testing served as a potent, albeit poorly conceived, <u>reminder of the enduring nuclear threat</u>. Trump's announcement, made shortly before a crucial meeting with Chinese President Xi Jinping, instructed the Defense Department to "immediately" recommence the testing of U.S. nuclear weapons "on an equal basis" with other nations. This directive <u>shocked the American national security establishment</u> and immediately prompted sharp responses from Beijing and Moscow.

The ambiguity of the order was immediately worrisome. It was initially unclear whether the president intended actual detonation of nuclear devices—which the United States has not done since 1992—or the routine testing of nuclear delivery vehicles, such as intercontinental ballistic missiles (ICBMs). Trump later appeared to clarify on 60 Minutes that he was ordering the actual testing of warheads. He insisted this move was necessitated by testing by other nations without providing any evidence. Only North Korea is known to have conducted a full nuclear test in the 21st century (last in 2017). China denied Trump's claim, stating it has abided by its commitment to suspend testing since 1996. Russia recently publicized the

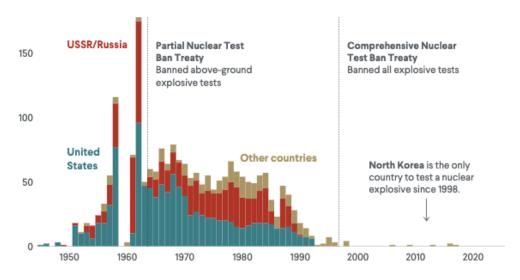
testing of the nuclear-powered cruise missile Burevestnik, but not a nuclear warhead detonation.

While Defense Secretary Pete Hegseth defended the president's decision as a responsible way to ensure a credible nuclear deterrent and maintain peace through strength, nuclear experts warned that resuming full tests would be unnecessary, costly, and would actively undermine <u>ongoing nonproliferation</u> <u>efforts</u>. The United States possesses all the necessary data to verify its arsenal's function, thanks to over 1,000 historic tests, a massive knowledge advantage over its potential adversaries.

An American test would undermine international compliance with the CTBT, which 187 nations have signed and risk spurring a new global race. Renewed testing might also allow other nuclear powers like Russia, China, India, and Pakistan to improve their nuclear capabilities. Russia, in response to Trump's comments, ordered its defense and foreign ministries to analyze the U.S. intentions regarding testing and prepare plans for a resumption of Russian tests. The widespread confusion and uncertainty following the announcement further risked undermining U.S. credibility with its allies including the United Kingdom and France that are also nuclear powers.

Nuclear Testing Has Virtually Stopped

Nuclear test explosions per year, by country



Note: Includes both atmospheric and underground tests. After the Partial Nuclear Test Ban Treaty banned explosive tests above-ground, most testing was conducted underground. The Comprehensive Nuclear Test Ban Treaty (CTBT) banned all explosive tests. Of the eight countries that have conducted explosive tests, France and the United Kingdom have signed and ratified the CTBT; the United States, China, and Russia have signed but not ratified (Russia ratified but later rescinded ratification); and India, North Korea, and Pakistan have not signed or ratified.

Source: Arms Control Association

COUNCIL OR FOREIGN RELATIONS

Trump's words also remind us that the rising threat posed by nuclear weapons is based on current global trends and ongoing conflicts. The NPT and the CTBT have formed the foundation of international nuclear norms, reducing the global stockpile from a Cold War peak of about 70,000 to just over 12,000 weapons across nine countries. Yet, several distinguished nonpartisan think tanks recently expressed grave concern that the proliferation curb achieved over decades is now gravely endangered.

Growing Concerns: The Drivers of Nuclear Instability

Several escalating geopolitical threats fuel this environment of growing concern:

Great Power Competition and Arsenal Expansion. China is rapidly expanding its nuclear capabilities, with Beijing intending to field an arsenal of over 1,000 nuclear weapons by 2030. This expansion is further supported by an announcement that the PRC has built the globe's first breeder reactor utilizing

thorium, which could offer an expanded source for uranium. Simultaneously, risky intercepts and unsafe encounters between Chinese and American military forces have spiked, increasing the danger of an inadvertent conflict. In sharp contrast to the U.S.-Soviet confrontation era, reliable real-time military communication systems between the U.S. and China have historically been limited to defuse such crises—though the Trump administration recently announced a new military communications channel

Meanwhile, Russia has repeatedly "rattled its nuclear saber" during the ongoing conflict in Ukraine as it seeks to intimidate Kyiv, the United States, and NATO allies. Moscow has conducted nuclear drills and tested long-range systems like a nuclear-powered cruise missile and a long-range nuclear torpedo. These developments raise serious questions about the longevity of the "nuclear taboo" that has long discouraged the use of these weapons. In this tense environment, the expiration of the New START agreement between Russia and the United States, which limits strategic nuclear weapons, is looming in 2026, and all other agreements limiting nuclear weapons have been eliminated. Consequently, testing might encourage a nuclear arms race.

North Korea continues to contribute to regional instability, <u>expanding its arsenal</u> <u>and test-firing</u> long-range sea-launched cruise missiles. Many in South Korea now fear that a nuclear test by Pyongyang is imminent. Separately, the recent, albeit contained, war between nuclear-armed India and Pakistan <u>serves as a stark</u> <u>reminder of global fragility</u>. Studies estimate that even a limited nuclear exchange between these two nations could cause 50 to 125 million immediate deaths, followed by over 2 billion global deaths resulting from mass starvation from an ensuing "nuclear winter".

Technological and Command and Control Risks. As the geopolitical environment grows increasingly complex, emerging technologies introduce new uncertainties. Potential American adversaries are threatening to arm hypersonic missiles or other maneuverable warheads with nuclear weapons that risk rapid escalation and potentially undermining stability in a crisis. Furthermore, while U.S. nuclear weapons are undergoing a massive modernization program estimated to cost

\$1.7 trillion, experts are cautious about the integration of advanced systems. The primary concern regarding Artificial Intelligence (AI) in nuclear systems is its integration into intelligence analysis or early warning identification. Given the inherent risk of catastrophe, the United States and China formalized an agreement that only humans could make the decision to use nuclear weapons. It is worth noting that this was a political agreement, not a binding treaty, and it predates Trump's 2025 term.

The fundamental basis of U.S. nuclear employment policy established during the Cold War, hinges on a "launch on warning" posture. In the event of an incoming ICBM attack from Russia, the president has only a few moments—about 30 minutes of flight time for an ICBM and less for a submarine launched weapon —to consider intelligence and decide how to respond. Policymakers have explored options to expand "decision time" or shift to a "no first use" policy, but at the moment this is unlikely. Contemporary analysts agree that the highest risk today is not a massive, unanticipated strategic attack, but rather miscalculation or escalation during conventional warfare or a crisis.

Missile Defense and Nonproliferation Budget Cuts. President Trump has announced his "Golden Dome" initiative aimed at building a comprehensive missile defense architecture. However, the technical challenge of intercepting ballistic missiles remains extraordinarily difficult. Currently, the U.S. military cannot shoot down even a limited number of incoming missiles, and many experts fear any system could be overwhelmed by the sheer number of incoming warheads. Consequently, building a full-range Golden Dome could cost an estimated \$3.6 trillion. Beyond the financial strain, a significant buildup of U.S. missile defenses risks fueling the arms race, potentially preventing future negotiations on capping, or eliminating nuclear weapons, mirroring the impasse that occurred at the 1986 Reykjavik meeting between Reagan and Gorbachev.

Paradoxically, while the U.S. is spending trillions on modernization and ambitious defense projects, the administration has dramatically reduced budgets and personnel in the State Department, Defense Department, and Department of Energy devoted to arms control and managing proliferation risks.

Rebuilding Non-Proliferation Leadership

Most experts agree that the United States must retain its historical leadership role in global non-proliferation. The continued spread of nuclear weapons is destabilizing and fundamentally contrary to American national security interests.

To counter the growing anarchy, the U.S. must pursue several key actions:

- 1. Strategic Management of Rivalries and Alliances: Washington must manage geopolitical rivalries while modernizing its own forces and ensuring energy security for the peaceful use of nuclear power. Strategic partnerships, such as Saudi Arabia's exploratory negotiation with the Trump administration to develop nuclear reactors, require extended oversight, credible alternatives to nuclear enrichment, and greater support for the International Atomic Energy Agency (IAEA) as the "global watchdog."
- 2. Bolstering Extended Deterrence: Continuing commitments to allies in Europe and the Pacific is critical to discourage them from pursuing indigenous nuclear weapons programs, which is arguably the most likely area of proliferation. Trump's seeming ambivalence about America's commitment to extend deterrence has already spurred leaders in Poland and Germany to openly debate this possibility, forcing the UK and France to offer alternative nuclear guarantees. In South Korea, over 70% of the population believes Seoul should acquire its own nuclear weapons to deter North Korea. Efforts to mitigate this desire must include conventional military and missile defense support, along with a more equitable division of labor.
- 3. **Investing in Non-Proliferation Architecture:** Serious consideration must be given to additional investments in the diplomatic, economic, military, and technological tools that underpin America's efforts to prevent nuclear proliferation and reduce the possibility of conflict.

Building on A House of Dynamite

The evidence points toward a dangerous increase in nuclear risk, driven by great power competition, technological uncertainty, and the weakening of long-standing non-proliferation norms. More states acquiring nuclear weapons inherently means a higher risk of use and also increases the possibility that a terrorist organization could obtain one. Even if intended as a deterrent, the resumption of nuclear testing could accelerate this worrisome trend.

Preventing such anarchy must remain a top priority. The dangers have recently been highlighted in popular culture, particularly with the new film A House of Dynamite (arriving two years after Oppenheimer). This film, focusing on the systems and the people involved in the decision-making process against a plausible threat (an unattributed missile headed for Chicago), underscores a terrifying realization: that the U.S. missile defense system has a mere "coin toss" success rate. The film effectively translates the complex risks of nuclear issues into an urgent concern for younger audiences, highlighting that systemic problems demand systemic solutions.

These cinematic reminders stress an essential, often overlooked point: A nuclear power, regardless the size of its arsenal, cannot escape its fundamental vulnerability. Even the detonation of a few weapons would be catastrophic. The world lost interest in this esoteric topic following the collapse of the Soviet Union. Renewed efforts, careful thinking, and informed leadership are necessary now to ensure that the success achieved in preventing nuclear war since 1945 continues into an uncertain future.

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