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# The CTBT, the Global Nuclear Test Moratorium, and New U.S. Threats to Break the Norm

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Three decades after the conclusion of the 1996 Comprehensive Test Ban Treaty (CTBT), the treaty has near universal support and has established a global norm against nuclear test explosions.

The treaty is backed by a robust technical organization, the Comprehensive Test Ban Treaty Organization (CTBTO), that is responsible for the operation and maintenance of a highly sensitive global nuclear test monitoring system to detect and deter violations of the treaty.[1]

The nuclear testing taboo impedes the development of new and more advanced nuclear warhead designs, which helps prevent dangerous nuclear competition and strengthens international security.

But the CTBT and the *de facto* global nuclear test moratorium cannot be taken for granted. The treaty has not yet entered into force due to the failure of eight key states, including the United States and China, to ratify, and Russia's decision to "de-ratify" in 2023.

Although all 187 signatories are legally bound to respect the central purpose of the treaty,[2] the full benefits of the treaty—including the option to order short-notice on-site inspections to investigate potential violations—cannot be realized until it enters into force.

To keep the door to nuclear testing closed, responsible states need to rejuvenate efforts achieve entry into force of the treaty and actively resist any move to resume nuclear testing by any state.

## SUMMARY OF KEY POINTS

- The CTBT has been a central goal of the nuclear Nonproliferation Treaty (NPT) states-parties since the NPT was opened for signature in 1968.
- The 1996 CTBT has brought the era of nuclear testing to an end and established a global norm against any kind of nuclear test explosion.
- The door to nuclear testing remains open as the treaty has not entered into force due to the treaty's onerous Article XIV provisions, which require ratification by 44 specific states.
- Despite the fact that the United States has signed the CTBT and the U.S. nuclear weapons laboratory directors and the National Nuclear Security Administration have determined that nuclear explosive testing is not necessary to maintain the reliability of the U.S. nuclear arsenal, the Trump administration has declared that it will not seek Senate advice and consent for U.S. ratification and, in October 2025, Trump suggested that he would order the resumption of U.S. nuclear testing "on an equal basis."
- Pending CTBT entry into force, the P5 should engage in technical talks to develop confidence building measures to resolve real or potential concerns about very low-yield, supercritical nuclear test detonations at former nuclear test sites.
- NPT states parties should approve stronger language in support of the global moratorium on nuclear testing and the CTBT, and the P5 should issue their own joint declaration in support of the global moratorium on nuclear testing and the CTBT ahead of the 2026 NPT Review Conference.

Although it has not yet formally entered into force, the CTBT is one of the most successful and valuable agreements in the long history of nuclear nonproliferation, arms control, and disarmament.

The non-testing norm and the CTBT itself cannot be taken for granted. To close the door on further nuclear testing, and to reinforce the nonproliferation regime, we must rejuvenate efforts to achieve CTBT entry into force and resist any moves to resume nuclear explosive testing.

The most recent and very serious threat to the non-testing norm—President Donald Trump's October 30 announcement[3] that he wants to resume nuclear testing—if carried out, would violate the U.S. obligation as a signatory to the CTBT not to test, and it would trigger a chain reaction of nuclear explosive testing that would undermine U.S. and global security and blow apart the nuclear nonproliferation regime.

### The Role of the CTBT in the Broader Nonproliferation and Disarmament System

Since 1945, nuclear testing has been used to develop new, more advanced nuclear-warhead designs and to demonstrate nuclear-weapons capabilities. Nuclear testing has propelled the global nuclear-arms competition and undermined global peace and security.

For nearly as long, a global, verifiable ban on nuclear-test explosions has been a goal for international nuclear-risk reduction, nonproliferation, and disarmament. Without the ability to conduct nuclear-explosive tests, a country cannot confidently develop more advanced types of nuclear warheads.

A global nuclear-test ban was first formally proposed in 1954 by Indian Prime Minister Jawaharlal Nehru as a step toward ending the nuclear-arms race and preventing proliferation—and to prevent the significant health and environmental damage produced by atmospheric nuclear-test explosions conducted in the United States, the islands of the Pacific, Australia, China, North Africa, Russia, and in Kazakhstan, where the Soviet Union conducted 468 of its 715 nuclear tests. The dangerous health and environmental legacy of nuclear testing persists today. At least eight states (United States, Soviet Union, United Kingdom, France, China, India, Pakistan, and North Korea) have conducted more than 2,056[4] nuclear test explosions, with U.S. tests accounting for more than half of that total.

From 1962-1963, President John F. Kennedy pursued comprehensive test ban talks with Russia, but the two sides could not agree on the number of on-site inspections. Instead, the two sides agreed to the Limited Test Ban Treaty, which prohibits nuclear test explosions in the atmosphere, and outer space.

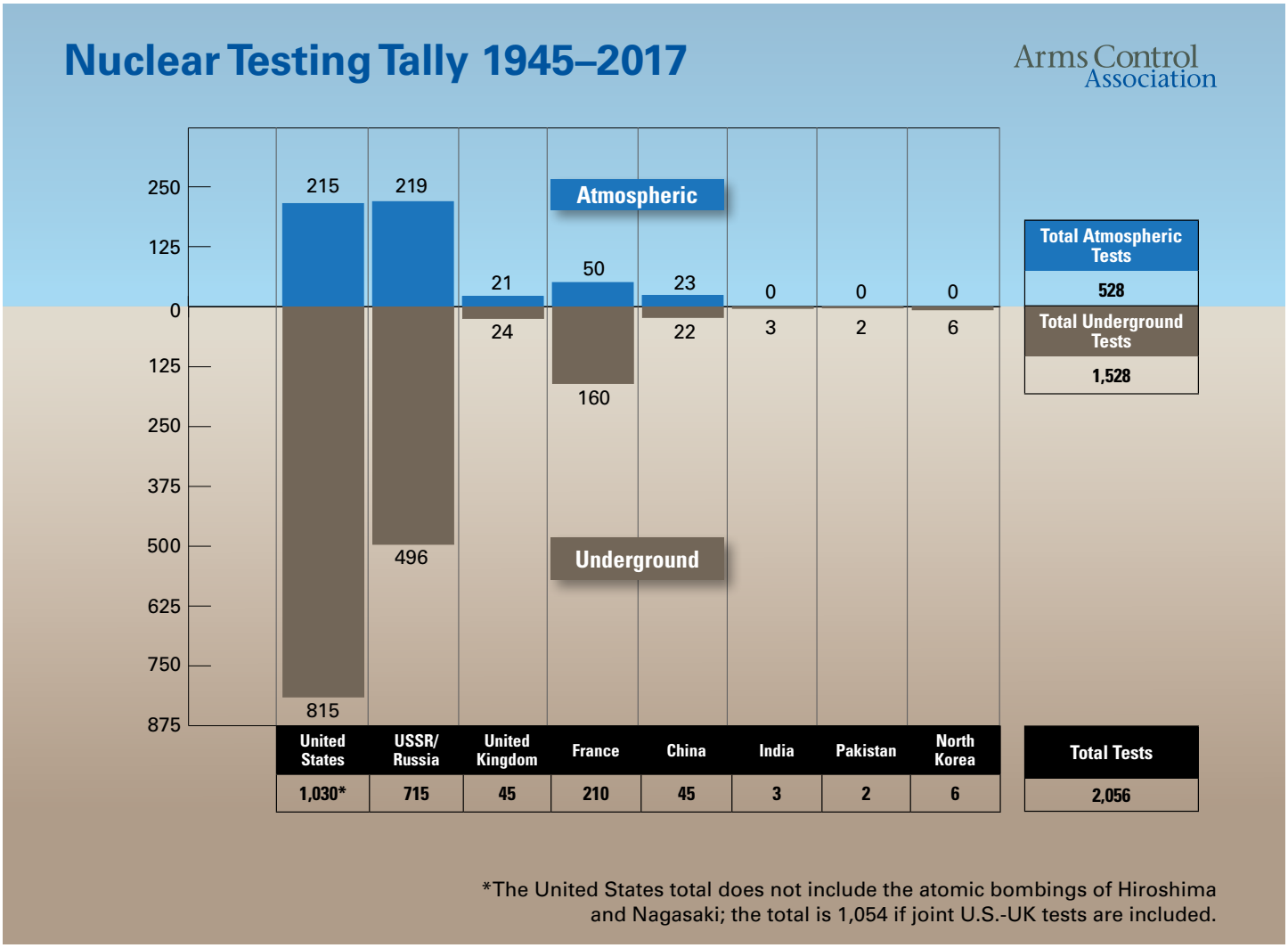
**[A resumption of U.S. nuclear testing] would trigger a chain reaction of nuclear explosive testing that would undermine U.S. and global security and blow apart the nuclear nonproliferation regime.**

In the negotiations for the 1968 Treaty on the Non-Proliferation of Nuclear Weapons (NPT), the CTBT was widely recognized as a critical part of the nuclear-weapon states' obligation to meet their NPT Article VI commitment to "effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament."[5] The preamble of the NPT specifically cites the goal of "the discontinuance of all test explosions of nuclear weapons for all time and to continue negotiations to this end."[6]

President Jimmy Carter again sought to negotiate a comprehensive test ban treaty with Russia from 1977-1980, but that effort also fell short as U.S.-Soviet relations soured after Moscow's invasion of Afghanistan.

Not until the end of the Cold War would the conditions to secure the CTBT finally become more favorable. An important catalyst was the pressure of a popular protest movement in Kazakhstan, which successfully pressed the Soviet government in Moscow to close the Semipalatinsk test site and announce a one-year, unilateral nuclear test moratorium in October 1991.

In response, nuclear test ban campaigners pressed a bicameral, bipartisan group of U.S. lawmakers to promptly introduce legislation mandating corresponding U.S. testing moratorium. By September 1992, the revised test moratorium legislation was approved by solid majorities in the House and Senate as part of a larger appropriations measure over vigorous objections from President George H.W. Bush, who reluctantly signed it on October 3 and vowed to rescind it the following year. Bush lost the 1992 election to Clinton, who said during the campaign that he would pursue a global test ban treaty. The final U.S. nuclear test before the U.S. moratorium was conducted on September 23, 1992.




In July 1993, newly-elected President Bill Clinton–under pressure from civil society and from Congress and on the advice of his Energy Secretary–decided to extend the nuclear test moratorium and pursue multilateral negotiations on a global test ban treaty at the Conference on Disarmament (CD).[7] A key breathrough in the talks was the 1995 decision by the Clinton administration to insist that the treaty should prohibit all forms of nuclear explosive testing, including very low yield "hydronuclear" test explosions.[8]

The push for the comprehensive test ban became a key variable in the negotiations between the "nuclear-haves" and the "nuclear-have-not states" at the pivotal 1995 NPT Review and Extension Conference. Support from the NPT's five recognized nuclear-weapon states for the CTBT gave non-nuclear-weapon states leverage at the NPT conference and contributed to the decision to extend the treaty and adopt a strong "program of action" for disarmament, including the conclusion of CTBT negotiations by the end of 1996.[9]

The CD negotiations produced a draft treaty in the summer of 1996 that prohibited nuclear test explosions of any explosive yield. To overcome opposition to the draft treaty from India, on September 10, 1996, with 127 co-sponsors for an Australian CTBT resolution, a special session of the UN General Assembly overwhelmingly approved the CTBT by a margin of 158 to 3, with five abstentions. On September 24, 1996, the CTBT was opened for signature. On the first day, 71 countries signed the treaty, including the United States.

As the Executive Secretary of the Comprehensive Test-Ban-Treaty Organization, Dr. Lassina Zerbo, and Russia's Deputy Foreign Minister, Sergei Ryabkov, wrote in an April 2017 essay, Article I of the CTBT prohibits "'any nuclear weapon test explosion or any other nuclear explosion' anywhere on Earth, whatever the yield."[10]

This provision of the treaty is recognized by all of the major negotiating parties to mean that supercritical hydronuclear tests (which produce a self-sustaining fission chain reaction) are banned, but subcritical hydrodynamic

(a.k.a. subcritical) experiments (which do not produce a self-sustaining fission chain reaction) are permitted.[11]

In 1997, the Comprehensive Test Ban Treaty Organization was formally established to work with states parties to build and operate a robust International Monitoring System (IMS) and International Data Center (IDC). Today, the IMS is more than 90 percent complete, the IDC is fully functional, and the CTBTO is a mature, highly professional, and fully operational organization that is collecting and analyzing information on a continuous round-the-clock basis for the purpose of detecting and deterring clandestine nuclear-test explosions and to provide the technical basis for international responses to noncompliance.

Once the treaty formally enters into force, the verification system will also include the option for additional confidence-building measures (such as voluntary visits to former test sites by CTBTO personnel) and, if necessary, short-notice on-site inspections to investigate suspicious events. Information from states' national intelligence networks, which are more sensitive in some geographic regions can be considered when states-parties consider the on-site inspection option.

In anticipation of the fact that the treaty's onerous Article XIV entry into force provisions would delay entry into force, Canadian negotiators insisted on a provision in Article XIV that allows for conferences of states-parties to meet every two years to develop strategies and seek ways to accelerate the process toward securing the necessary 44 ratifications.

Beginning with the first such conference in 1999, there have been fourteen such meetings, which have, unfortunately become *pro forma* affairs that primarily allow states which have signed and/or ratified to reiterate their support, exhort hold-out states to act, and to develop a modest joint diplomatic outreach plan.[12]

## The Nuclear Testing Taboo

Since the CTBT opened for signature, it has established a powerful standard of "responsible" behavior. Every one of the CTBT's 187 state signatories, even those that have not yet ratified the treaty, is bound by international law not to take an action contrary to the "object and purpose" of the treaty, which prohibits all nuclear test explosions.

Nations that conduct nuclear tests would stand outside the international nuclear nonproliferation mainstream and risk adverse political and economic consequences. Only one country—North Korea—has conducted nuclear-test explosions in this century.

Even India, which strongly opposed the CTBT during and after the conclusion of the negotiations in 1996, has declared a moratorium on nuclear testing following its May 1998 series of nuclear tests.[13] Pakistan, which responded with its own nuclear tests weeks later, has also since observed a testing moratorium and declared it would not be the first state in the region to resume nuclear testing.[14]

International support for the CTBT has been reaffirmed over the years through multiple UN General Assembly resolutions and UN Security Council (UNSC) resolutions. UNSC resolution 1887 (2009) calls upon all states "to refrain from conducting a nuclear test explosion and to sign and ratify the Comprehensive Nuclear Test-Ban Treaty, thereby bringing the treaty into force at an early date."[15]

On the occasion of the twentieth anniversary of the opening for signature of the CTBT in Sept. 2016, the UNSC adopted the first-ever, CTBT-specific resolution (UNSC 2310), which reaffirms the global norm against nuclear-weapon-test explosions, calls on the eight remaining states that must ratify for entry into force to do so, and urges all states to provide their full financial and technical support to the CTBTO. The resolution was formally co-sponsored by forty-two states, including Israel.[16]

The UNSC 2310 test-ban resolution also formally recognizes the important September 15, 2016, statement from the permanent five members of the council expressing the view that any nuclear test explosion would "defeat the object or purpose of the treaty."[17] The statement gives public expression to the existing legal obligation of all CTBT signatories not to test a nuclear weapon, even before the treaty enters into force.[18]

The Treaty on the Prohibition of Nuclear Weapons (TPNW), which was opened for signature in 2017, further reinforces the CTBT and the non-testing norm. Under the TPNW, states parties may not "test" nuclear weapons or any other nuclear explosive devices.

## The Effect of the Nuclear Test Ban on Nuclear Weapons Development

For decades, a global ban on nuclear explosions has been a central goal and is now a central element of the nuclear nonproliferation and disarmament enterprise because an effective, comprehensive, verifiable test ban directly constrains the ability of all parties to develop more-advanced nuclear weapons.

As noted in the preamble of the 1996 treaty: "The cessation of all nuclear weapon test explosions and all other nuclear explosions, by constraining the development and qualitative improvement of nuclear weapons and ending the development of advanced new types of nuclear weapons, constitutes an effective measure of nuclear disarmament and non-proliferation in all its aspects."[19]

**Beyond the crater formed by the "Divider" nuclear test, the last U.S. nuclear test explosion, is the tower for "Icecap," a joint U.S.-UK nuclear test that was nearly ready to execute but never happened due to the congressionally-mandated nuclear testing moratorium enacted on October 3, 1992.** (Photo by the Los Alamos National Laboratory)

Technically, a state might have some degree of confidence that a simple, relatively cumbersome fission device would work without testing, as the United States concluded with the Hiroshima bomb in 1945.

Today, a country with no or little nuclear-weapons design and nuclear-test-explosion experience might be able to acquire an ambiguous nuclear weapons capability without nuclear explosive testing, but under the CTBT it could not use a nuclear test to demonstrate that capability, as India did with its first nuclear-test explosion in 1974, without running a very high risk it would be detected.

Just as significantly, the test ban constrains nuclear weapons development by states with little or no nuclear testing experience by blocking the progression from simple fission designs, to "boosted" fission designs, and then to two-stage thermonuclear designs with better yield-to-weight ratios.

How far along the developmental ladder a proliferator could go without nuclear-explosive testing is not exactly clear, but states intent on acquiring and deploying modern, two-stage thermonuclear weapons compact and light enough to deliver on long-range ballistic missiles would probably not have confidence in their performance without multiple, multi-kiloton nuclear-test explosions, which would very likely be detected by the CTBTO's International Monitoring System and national technical means of intelligence.

Despite substantial science and technological advances over the past two decades that can aid in maintaining and extending the service life of existing nuclear warheads, the CTBT also creates a significant technical barrier for states with a substantial history of nuclear testing who may in the future seek new nuclear warhead designs, such as China, France, Russia, the United Kingdom, and the United States.

According to the exhaustive 2012 study by the U.S. National Academy of Sciences on CTBT technical issues, these states "… are unlikely to be able to deploy new types of strategic nuclear weapons that fall outside the design range of their nuclear-explosion test experience without several multi-kiloton tests. Such multi-kiloton tests would likely be detectable (even with evasion measures) by appropriately resourced … national technical means and a completed IMS network."[20]

In other words, without the option to conduct nuclear explosive tests, it is more difficult, although not impossible, to develop, prove, and field new warhead designs.

## The Threat of Renewed U.S. Nuclear Explosive Testing

Unfortunately, the United States, which was a leading proponent for the CTBT during the 1990s is now a major potential threat to the non-testing norm.

A major setback was the October 1999 U.S. Senate rejection of ratification of the treaty by a 51-48 margin


**David Funk (L), vice president of enhanced capabilities for subcritical experiments, and Marvin Adams (R), National Nuclear Security Administration deputy administrator for defense programs, answer questions from nongovernmental experts about the operation of the Cygnus subcritical experiment machine in the "zero room" at the National Nuclear Security Site in November 2023.**
(Photo by the U.S. National Nuclear Security Administration)

following a brief and highly partisan debate that centered on questions about the then-unproven program to maintain the existing nuclear warheads in the U.S. stockpile without nuclear explosive tests (a.k.a. the Stockpile Stewardship Program) and the then-unfinished global test-ban monitoring system.[21]

Much has changed since the Senate last examined the CTBT in 1999. The substantive case for U.S. ratification of the CTBT is even stronger than it was then. Today, the global monitoring system can detect any militarily significant nuclear-test explosion and the U.S. stockpile stewardship program to maintain the U.S. nuclear arsenal without nuclear-test explosions has proven to be more effective than originally anticipated.[22]

Since 1999, Democratic presidential administrations have supported U.S. CTBT ratification, but Republican presidential administrations have witheld U.S. support for entry into force of the treaty. Partisan divisions and an absence of strong presidential leadership have stymied further efforts to secure Senate advice and consent for U.S. ratification.

Nevertheless, both Republican and Democratic administrations have continued to respect the "zero-yield" CTBT, urged other states to respect the global moratorium on nuclear test explosions, and have supported funding and technical assistance the construction and operation of the CTBTO's international monitoring system.

In February 2018, however, without explanation or a high-level review or consultation with allied countries, the first presidential administration of Donald Trump announced that it would not seek Senate approval for U.S. ratification of the CTBT.

Then, on May 22, 2020, *The Washington Post*, reported that senior Trump administration national security officials discussed the option of a demonstration nuclear blast at a May 15 interagency meeting. *The Post* reported that a senior official suggested that a "rapid test" by the United States could help the Trump administration put pressure Russia and China in talks on a new arms control agreement. The administration did not follow-through with the suggestion.

Then, on October 30, 2025, President Trump unexpectedly declared in a social media post just hours before a scheduled meeting with Chinese President Xi Jinping that he had "instructed the Department of War to start testing our Nuclear Weapons on an equal basis."

In comments recorded the next day and broadcast on the *60 Minutes* television news show, Trump doubled down on his earlier comments and said: "I'm saying that we're going to test nuclear weapons like other countries do, yes .... Russia's testing, and China's testing, but they don't talk about it. You know, we're an open society. We're different. We talk about it. We have to talk about it, because otherwise you people are gonna report– they don't have reporters that gonna be writing about it. We do. No, we're gonna test, because they test and others test. And certainly, North Korea's been testing. Pakistan's been testing."

Also, on October 31, 2025, the United States, for the first time ever, was the only "no" vote on an annual resolution at the UN First Committee in support of the global moratorium on nuclear testing and the CTBT.[23]

Since Trump's initial October 30 nuclear testing comments, the White House has not yet clarified what kind of nuclear tests Trump is suggesting and it has not provided any new information to back up Trump's claim that other states are conducting nuclear test explosions.

The Secretary of Energy, Chris Wright, suggested in an interview recorded and broadcast on Nov. 2 that Trump was referring to "non-critical tests" of nuclear weapons systems, probably a reference to subcritical nuclear experiments that are conducted at the Nevada National Security Site that do not involve a nuclear explosion due to a self-sustaining chain reaction. That interpretation has not yet been confirmed by the White House.

There is no technical, military, or political reason for the United States to resume nuclear explosive testing. As Brandon Williams, the current NNSA administrator, said during his confirmation hearing earlier this year: "[W]e collected more [nuclear test] data than anyone else. And it is precisely that data that has underpinned our scientific basis for confirming the stockpile. I would not advise … testing."

In Williams' response to written questions from Congress, he said: "The United States continues to observe its 1992 nuclear test moratorium; and, since 1992, has assessed that the deployed nuclear stockpile remains safe, secure, and effective without nuclear explosive testing."

It would take at least 18 months to conduct an underground nuclear "demonstration" test explosion, and as much as 36 months or more–and several hundred million dollars–to conduct a multi-kiloton yield, "instrumented" underground nuclear test explosion (i.e. one that provides data about the characteristics of the device and the explosion it produces).

Even if Trump orders the NNSA to prepare and conduct very low yield "hydronuclear" tests, significant and costly modifications of the existing underground experimental facility at the Nevada National Security Site would be necessary. Such tests would violate the U.S. and global test moratorium and open the door for other states to resume full-scale nuclear test explosions.

## The Problem of Very Low-Yield Nuclear Test Explosions and the Non-Testing Norm

Pending the long-delayed entry into force of the CTBT, the United States, China, and Russia (unlike France) all continue to actively engage in weapons-related activities at their former nuclear testing sites. Each of the three also maintain respective "test readiness" programs to enable them to resume nuclear explosive testing if they were to decide to abandon the global moratorium on nuclear explosive testing.

Although the CTBTO's IMS is operational and far more effective than originally envisioned, very low-yield nuclear test explosions can still be difficult to detect without on-site monitoring equipment or the option to trigger short-notice on-site CTBTO inspections--but the latter require that the treaty enters into force.

In the absence of new voluntary confidence-building measures, there remains a risk that activities at these former nuclear testing sites might be misconstrued as clandestine, very low yield "hydronuclear" test explosions or might be cited as a cynical excuse for another state to openly resume nuclear testing.

Trump's recent comments alleging that other states are engaged in nuclear testing may be a reference to past allegations about Russian activities.[24]

In 2019, the United States accused Russia of conducting very low-yield supercritical nuclear tests, also known as "hydronuclear" tests at its Novaya Zemlya site. In prepared remarks delivered at the Hudson Institute May 29, the Director of the Defense Intelligence Agency (DIA), Lt. Gen. Robert Ashley, Jr., charged that "Russia probably is not adhering to its nuclear testing moratorium in a manner consistent with the 'zero-yield' standard outlined in the 1996 Comprehensive Test Ban Treaty (CTBT)."

Russia vigorously denied the allegation. At the time, Russian Foreign Minister Sergey Lavrov called the accusation "a crude provocation" and pointed to the United States' failure to ratify the CTBT.

The United States' 2019 accusations were not substantiated and did not specify when the alleged Russian activities may

## Purposes and Plausible Achievements for Nuclear Testing at Various Yields

| Yield | Countries of Lesser Prior Nuclear Test Experience and/or Design Sophistication | Countries of Greater Prior Nuclear Test Experience and/or Design Sophistication |
|---|---|---|
| Subcritical testing only (permissible under a CTBT) | • Equation-of-state studies<br>• High-explosive lens tests for implosion weapons<br>• Development & certification of simple, bulky, relatively inefficient unboosted fission weapons | Same as column to left, plus<br>• Limited insights relevant to designs for boosted fission weapons |
| Hydronuclear testing (yield < 0.1 t TNT, likely to remain undetected under a CTBT) | • One-point safety tests (with difficulty) | • One-point safety tests<br>• Validation of design for unboosted fission weapon with yield in 10-ton range |
| Extremely-low-yield testing (0.1 t < yield < 10 t, likely to remain undetected under a CTBT) | • One-point safety tests | • Validation of design for unboosted fission weapon with yield in 100-ton range<br>• Possible overrun range for one-point safety tests |
| Very-low-yield testing (10 t < yield < 1-2 kt, concealable in some circumstances under a CTBT) | • Limited improvement of efficiency & weight of unboosted fission weapons compared to 1st-generation weapons not needing testing<br>• Proof tests of compact weapons with yield up to 1-2 kt (with difficulty) | • Proof tests of compact weapons with yield up to 1-2 kt<br>• Partial development of primaries for thermonuclear weapons |
| Low-yield testing (1-2 kt < yield < 20 kt, unlikely to be concealable under a CTBT) | • Development of low-yield boosted fission weapons<br>• Eventual development & full testing of some primaries & low-yield thermonuclear weapons<br>• Proof tests of fission weapons with yield up to 20 kt | • Development of low-yield boosted fission weapons<br>• Development & full testing of some primaries & low-yield thermonuclear weapons<br>• Proof tests of fission weapons with yield up to 20 kt |
| High-yield testing (yield > 20 kt, not concealable under a CTBT) | • Eventual development & full testing of boosted fission weapons & thermonuclear weapons | • Development & full testing of new configurations of boosted fission weapons & thermonuclear weapons |

Source: *Technical Issues Related to the Comprehensive Nuclear Test Ban Treaty*, National Academy of Sciences, 2002

have occurred. When asked by a reporter from *The Wall Street Journal* whether the DIA believes Russia is actually conducting experiments in excess of the zero-yield ban of the CTBT, Gen. Ashley replied: "I'd say we believe they have the capability to do it the way they are set up."

Furthermore, there was no further clarification of the 2019 accusation in any of the annual State Department reports on compliance with arms control agreements after 2021, the last year of the first Trump administration.[25]

Any violation of the CTBT by Russia, which has signed the agreement, or any other signatory, would be a serious matter. Very low-yield explosive tests by Russia or the United States, however, would not provide significant technical or military value to advanced nuclear-armed states such as China, Russia, or the United States.

At most, hydronuclear tests could provide validation of the design of an unboosted fission device in the tens of tons (TNT equivalent) yield range. None of the more advanced nuclear weapon states have a military or technical need to conduct such nuclear explosive tests, nor do they have a plausible need for new nuclear weapons of this type.

To address any serious concerns about clandestine activities at former test sites, the P5 should engage in talks to develop joint technical methods that would support voluntary confidence-building measures prior to CTBT entry into force—to be implemented with support from independent scientific experts and/or the CTBTO—that are designed to detect and deter possible low-level, clandestine nuclear testing. Such methods would likely involve standardized neutron emissions monitoring equipment that can determine whether a experiment involving fissile material produced a self-sustaining nuclear chain reaction or not.

Such an approach was publicly advanced by the United States's former administrator of the National Nuclear Security Administration in June 2023[26] and technical methods have been explored by the NNSA through research conducted at the U.S. national labs for possible deployment at the Nevada National Security Site's Primary Underground Lab for Subcritical Experiments (PULSE).[27]

## Countering the U.S. Threat to Resume Testing

In the United States, opposition to nuclear testing is strong and growing. In May 2025, the Nevada State Legislature unanimously approved a bipartisan resolution in support of maintaining the moratorium on U.S. nuclear testing. A 2024 national opinion survey by the University of Maryland found that 75% of all Americans support the global nuclear test moratorium. Days after Trump's threats, bills were introduced in the House of Representatives and the Senate to block a resumption of U.S. nuclear testing.[28]

If, however, Trump is serious about resuming nuclear explosive testing of some kind or another, and if the administration can overcome congressional opposition to the resumption of nuclear testing, bipartisan opposition in the state of Nevada, and public support for maintaining the moratorium on nuclear explosive testing, a U.S. test would trigger a chain reaction of nuclear testing by other states, including Russia, likely North Korea, and possibly China and India. Such an outcome would increase tensions, accelerate nuclear competition, and severely damage the CTBT and the NPT regime as a whole. U.S. and global security would be adversely affected.

In response to Trump's threat to resume U.S. testing, leading states, including other P5 states, should:

- Seek immediate clarification of Trump's nuclear testing comments.
- Reaffirm their support for the *de facto* global moratorium on nuclear test explosions and the prompt entry into force of the CTBT, including by issuing a joint heads-of-state declaration in the run-up to the 2026 NPT Review Conference, and/or a UN Security Council Resolution patterned after UNSC 2310 (2016).
- Encourage the United States, China, and Russia to engage in technical talks on confidence-building measures at their former nuclear test sites (and before entry into force of the CTBT) to ensure that declared subcritical nuclear experiments are not cover for prohibited, very low-yield, supercritical nuclear test explosions.
- Ahead of the 2026 NPT Review Conference, the P5 should issue their own joint declaration in support of the global moratorium on nuclear testing and the CTBT.
- All NPT states parties should approve stronger language in support of the global moratorium on nuclear testing and the CTBT.[29]

Unfortunately, the door to the renewal of nuclear testing remains open. Responsible states, along with civil society, must remain vigilant and take meaningful steps to reinforce the non-testing norm.

As we approach the 30th anniversary of the conclusion of the CTBT, the P5 must be pressed to go beyond business as usual, reaffirm their past support for the CTBT, work together to preserve the *de facto* global moratorium on nuclear explosive testing, and resolve concerns about activities at former nuclear test sites, all of which is in their interest and in the interest of global security.

## ENDNOTES

1. "Twenty-five Years of Progress of the Comprehensive Nuclear-Test-Ban Treaty Verification System," CTBTO (April 2024), https://www.ctbto.org/sites/default/files/2024-07/20240618-CTBTO%2025th%20Anniversary%20booklet%20Final%20LRes.pdf.
2. The Vienna Convention on the Law of Treaties, Article 18, stipulates that "A State is obliged to refrain from acts which would defeat the object and purpose of a treaty when: (a) it has signed the treaty or has exchanged instruments constituting the treaty subject to ratification, acceptance or approval, until it shall have made its intention clear not to become a party to the treaty; or (b) it has expressed its consent to be bound by the treaty, pending the entry into force of the treaty and provided that such entry into force is not unduly delayed."
3. "Trump Says U.S. Will Resume Nuclear Testing," *Arms Control Today*, November 2025, https://www.armscontrol.org/act/2025-11/news-briefs/trump-says-us-will-resume-nuclear-testing.
4. *United States Nuclear Tests 1945 Through September 1992*, U.S. Department of Energy, DOE/NV-209, Rev. 14, December 1994; V. N. Mikhailov, editor, Catalog of Worldwide Nuclear Testing, Begell-Atom, LLC 1999; "The Nuclear Testing Tally," Arms Control Association Fact Sheet, https://www.armscontrol.org/factsheets/nucleartesttally.
5. Treaty on the Non-Proliferation of Nuclear Weapons, March 5, 1970, Article VI, www.un.org/en/conf/npt/2005/npttreaty.html.
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11. "Scope of the CTBT, Fact Sheet, US Department of State, Bureau of Arms Control, Verification and Compliance, n.d. http://www.state.gov/t/avc/rls/212166.htm.
12. For more information on past conferences, see the "Article XIV Conferences" section of the web site of the Comprehensive Test Ban Treaty Organization, https://www.ctbto.org/our-mission/article-xiv-conferences.
13. In a statement to the UN General Assembly in September 1998, Indian Prime Minister Atal Bihari Vajpayee told the 53rd UN General Assembly that India would not be among the last states standing in the way of the treaty's entry into force. Vajpayee said that India's series of five underground tests, conducted on May 11 and 13, 1998, "do not signal a dilution of India's commitment to the pursuit of global nuclear disarmament. Accordingly, after concluding this limited testing program, India announced a voluntary moratorium on further underground nuclear test explosions." He went on to say that: "We conveyed our willingness to move towards a de jure formalization of this obligation. In announcing a moratorium, India has already accepted the basic obligation of the CTBT… . We expect that other countries, as indicated in Article XIV of the CTBT, will adhere to this Treaty without conditions." See: https://www.pminewyork.org/adminpart/uploadpdf/92927lms48.pdf.
14. Ayesha Riyaz, Statement of Pakistan before the Ministerial Meeting on the CTBT, June 13, 2016, Vienna. See: https://www.ctbto.org/fileadmin/user_upload/statements/2016_Ministerial_Meeting/Pakistan.pdf.
15. "Historic Summit of Security Council Pledges Support for Progress on Stalled Efforts to End Nuclear Weapons Proliferation," Security Council 6191st Meeting, United Nations Meetings Coverage and Press Releases, September 24, 2009. See: http://www.un.org/press/en/2009/sc9746.doc.htm.
16. United Nations S /PV.7776 Security Council Seventy-first year 7776th meeting, 23 September 2016, page 2. See: http://www.un.org/en/ga/search/view_doc.asp?symbol=S/PV.7776.
17. Joint Statement on the Comprehensive Nuclear-Test-Ban Treaty by the Nuclear Nonproliferation Treaty Nuclear-Weapon States, Media Note, Office of the Spokesperson Washington, D.C., September 15, 2016. See: http://www.state.gov/r/pa/prs/ps/2016/09/261993.htm.
18. Under Article XVIII of the Vienna Convention on the Law of Treaties, which is widely recognized as customary international law, states are obliged not to take actions that would "defeat the object and purpose" of treaties they have signed. Vienna Convention on the Law of Treaties, May 23, 1969, Article 18, https://treaties.un.org/doc/Publication/UNTS/Volume%201155/volume-1155-I-18232-English.pdf.
19. Comprehensive Nuclear-Test-Ban Treaty, September 24, 1996, preambular paragraph 5, www.ctbto.org/fileadmin/content/treaty/treaty_text.pdf.
20. National Academy of Sciences (NAS), *The Comprehensive Nuclear Test Ban Treaty: Technical Issues for the United States*, 2012, p. 117.
21. Daryl G. Kimball, "What Went Wrong: Repairing the Damage to the CTBT," *Arms Control Today,* December 1999, https://www.armscontrol.org/act/1999_12/dkde99.
22. "U.S. Has No Need to Test Atomic Arsenal, Report Says," by Matthew L. Wald, *The New York Times*, March 31, 2012, http://www.nytimes.com/2012/03/31/science/earth/us-tests-of-atomic-weapons-not-needed-report-says.html. Also see: "Managing an Arsenal Without Nuclear Testing: An Interview With Jill Hruby of the U.S. National Nuclear Security Administration," *Arms Control Today*, December 2023, www.armscontrol.org/act/2023-12/interviews/managing-arsenal-without-nuclear-testing-interview-jill-hruby-us-national.
23. See: A/C.1/80/L.43 Resolution on the Comprehensive Nuclear-Test-Ban Treaty advanced by Australia. The vote was 174-1-4. In the United States' explanation of vote, the U.S. represenatative said: "The United States is not currently pursuing CTBT ratification and therefore cannot support calls for ratification and entry into force."
24. For further discussion, also see: "The Forgotten Nuclear Weapons Tests That Trump May Seek to Revive," by William J. Broad, *The New York Times*, November 25, 2025, https://www.nytimes.com/2025/11/24/science/hydro-nuclear-testing-trump.html.
25. For a more detailed analysis, discussion and analysis, see the Arms Control Association's White Paper, "U.S. Claims of Illegal Russian Nuclear Testing: Myths, Realities, and Next Steps," August 2019.
26. "Managing an Arsenal Without Nuclear Testing: An Interview With Jill Hruby of the U.S. National Nuclear Security Administration," *Arms Control Today*, December 2023, www.armscontrol.org/act/2023-12/interviews/.managing-arsenal-without-nuclear-testing-interview-jill-hruby-us-national.
27. See "SPECIAL REPORT: A Former Nuclear Test Site's New Role," by Daryl G. Kimball, *Arms Control Today*, January/February 2024, https://www.armscontrol.org/act/2024-01/features/special-report-former-nuclear-test-sites-new-role.
28. "Rep. Titus Spearheads Effort to Prevent the Resumption of Nuclear Testing," Press Release, October 31, 2025; "Senator Markey Introduces Legislation to Prevent Trump from Restarting Nuclear Testing, Blasts "Trumpatomics" for Potentially Reigniting Nuclear Arms Race," Press Release, October 30, 2025; and "Cortez Masto, Rosen, Western Senate Colleagues Introduce Legislation to Combat President Trump's Reckless Plan to Resume Explosive Nuclear Testing in Nevada," Press Release, November 5, 2025.
29. See page 12 in "Tried and tested: Why the CTBT must be preserved," December 2025 Policy Brief by the European Leadership Network, https://europeanleadershipnetwork.org/wp-content/uploads/2025/12/25_12_02_CTBT_NPT.pdf.