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# THE RISK OF RENEWED NUCLEAR TESTING

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## Introduction

One of the key non-proliferation breakthroughs of the past 30 years has been the conclusion of the 1996 Comprehensive Nuclear Test Ban Treaty (CTBT) and the end of explosive nuclear weapons testing. The Democratic People's Republic of Korea (DPRK) is the only state known to have conducted nuclear testing since the Indian and Pakistani tests in 1998 and it has not done so since 2017. However, in light of the growing salience of nuclear weapons and a crumbling nuclear arms control architecture, concerns over a resumption of explosive nuclear testing have been on the rise.

While occasional calls in Russia and the United States to reconsider the need for testing preceded February 2022,<sup>1</sup> the issue of testing has gained greater purchase with the onset of the Russo-Ukrainian war. As early as April 2022, select Russian voices called for a resumption of nuclear tests in order to demonstrate the reliability of the Russian nuclear stockpile and as a warning signal to the West.<sup>2</sup> In November 2023, President Putin signed a law on Russia's de-ratification of the CTBT, after it had passed both houses of the Russian parliament. Russian officials have justified the decision citing a need to "maintain parity"<sup>3</sup> with the United States, which has signed but not ratified the Treaty. While Russian officials have since stressed that Moscow, notwithstanding the de-ratification, will adhere to its nuclear testing moratorium, select Russian experts continue to call for a resumption of testing as part of a broader set of measures to force Western states to stop arming Ukraine and enter into a "serious dialogue" with Russia.<sup>4</sup>

Apprehensions about a return to nuclear testing do not concern Russia alone. Satellite images reported by CNN in fall 2023 indicated increased activity at nuclear test sites in China, Russia, and the United States.<sup>5</sup> The images showed recent expansions—such as new tunnels under mountains and new roads and storage facilities—at nuclear test sites in all three countries.<sup>6</sup> Russia and others have raised questions about U.S. activities at the Nevada National Security Site, most recently regarding experiments the United States conducted in October 2023 and May 2024. Finally, evidence of recent upgrades and expansions at China's former test site at the Lop Nur military base have raised concerns among experts that China is making preparations that would enable it to resume nuclear testing in the context of what is an unprecedented Chinese effort at nuclear expansion and modernization.<sup>7</sup>

Meanwhile, the Preparatory Commission for the Comprehensive Test Ban Treaty Organization (CTBTO) continues to advance its mission: Prepare for the entry into force of the CTBT, which bans all nuclear explosions, whether for military or peaceful purposes. Despite the deteriorating geopolitical conditions that have accompanied the Russo-Ukrainian war, the CTBTO has continued to certify additional stations for the International Monitoring System (IMS). Moreover, two additional states have signed and nine additional states have ratified the CTBT since February 2022.<sup>8</sup> Addressing the UN Security Council in March 2024, CTBTO Executive Secretary Robert Floyd noted the growing support for the Treaty worldwide and called for political leadership to ensure its entry into force.<sup>9</sup> (However, the obstacles to additional Annex 2 states — the 44 states that must ratify the treaty for it to enter into force — either signing or ratifying the CTBT remain considerable.<sup>10</sup>)

It is also positive that the nuclear-weapon states — all of which have signed the CTBT and thus have a legal obligation not to undertake activities that would be contrary to its object and purpose — continue to adhere to their unilateral moratoria against nuclear testing which have been in effect since 1996 in the case of China and France, 1992 for the United States, 1991 for the United Kingdom (UK), and 1990 for the USSR/Russia. Although Russia de-ratified the CTBT in late fall 2023, it has remained a signatory state, has publicly committed to the moratorium against testing (stating it will not test unless the United States tests first), completed its segment of the IMS with the installation and certification of a final station in Yuzhno-Sakhalinsk in December 2023,<sup>11</sup> and has committed to the continued transfer of data from its segment to the CTBTO. That said, the combination of U.S. public allegations that Russia has in the past conducted some very low yield nuclear tests inconsistent with a zero-yield standard and questions that have been raised about activities at the Chinese and U.S. test sites are undermining confidence and trust in the sustainability of the commitment of these three nuclear weapons states to refrain indefinitely from explosive nuclear testing.

Against the backdrop of this mixed picture, the trajectory of relations between the three major nuclear powers (and, in that context, developments in the Russo-Ukrainian war and in the Indo-Pacific) and domestic politics in each country will likely be the key factors determining whether one will eventually resume

testing. A test by either China, Russia or the United States would not only violate a longstanding norm, but may also set off a cascading effect, raising pressures in the other states to follow suit and dealing a serious blow to the Nuclear Non-Proliferation Treaty (NPT), whose indefinite extension in 1995 was linked to the commitment to negotiate the CTBT.

The purpose of this working paper is to (1) provide an overview of the positions of key countries related to the CTBT and to the moratorium against nuclear testing; (2) highlight particular areas of concern regarding the robustness of the norm against testing; and (3) offer recommendations for how the norm against testing can be protected and further strengthened in the future.

## Nuclear Testing and the Norm Against It: Current State of Play

### United States

The Biden administration has a clear policy of support for the CTBT and, as stated in the 2022 Nuclear Posture Review (NPR), “is committed to working to achieve its entry into force, recognizing the significant challenges that lie ahead in reaching this goal.”<sup>12</sup> The NPR also expressed support for the Preparatory Commission for the CTBTO; the completion and provisional operation of the IMS and International Data Centre; and development of the on-site inspection regime so that it will be capable of carrying out its compliance verification mission once the Treaty enters into force.

At the same time, the Biden administration has raised questions about Russian and Chinese activities at their test sites, for instance, stating in the 2024 annual compliance report that: “Due to the lack of transparency with regard to their respective nuclear testing activities and previously identified adherence issues, the United States remains concerned about the PRC’s and Russia’s adherence to their respective moratoria...The United States will continue to engage with the PRC and Russia, as appropriate, in order to address these continued concerns.”<sup>13</sup> (Both the Biden and Trump administrations have charged in the unclassified versions of their compliance reports that Russia has in the past conducted some very low yield nuclear tests, but the basis for these concerns is only provided in the classified versions. They also make clear that this concern is not a compliance

judgement; rather, it is an assessment that Russia has not always adhered to the U.S. zero-yield standard in implementing its own unilateral moratorium.)

In turn, Russia and others have raised questions about U.S. activities at the Nevada National Security Site, including a non-proliferation experiment the United States announced and conducted in October 2023 involving 16 metric tons of chemical high explosives and radiotracers to simulate the blast effects and the movement of gases that would be created by a prohibited nuclear explosion. The experiment was designed to improve detection of low-yield nuclear test explosions but did not involve a nuclear explosion. Nonetheless, while the CTBTO IMS seismic stations detected a very small-scale, human-made explosion at the Nevada Test Site that day, they reportedly cannot distinguish with high confidence between non-nuclear and nuclear explosions at very low yields. The United States conducted another subcritical experiment in May 2024, described in a press release as part of the stockpile stewardship program and consistent with the CTBT zero-yield standard and the U.S. moratorium.<sup>14</sup> While the United States considers itself to be more transparent about its activities than Russia and China, that does not mean questions have not arisen and will not arise. But after the May 2024 U.S. experiment, a Russian Foreign Ministry spokesperson indicated that the U.S. experiment “did not contradict Russia’s understanding of a subcritical test.”<sup>15</sup>

In June 2023, National Nuclear Security Administration Administrator Jill Hruby publicly proposed the idea of test site transparency discussions with Russia and China, though it does not appear that the United States has followed up that speech with a private and more detailed diplomatic proposal to either country. Mutual transparency about activities at test sites, ideally with scientists and technical experts engaging on site and in person, could help improve confidence about the nature and purpose of activities at the test sites and about the interpretation and adherence of each nation to its moratorium on explosive nuclear testing. But neither Russia nor China have shown interest in this suggestion. In an interview with Elena Chernenko in Kommersant on November 3, 2023, Russian Deputy Foreign Minister Sergey Ryabkov shrugged off the U.S. invitation to visit the Nevada Test Site, saying that such measures of “quasi-transparency” do not bring us closer to U.S. ratification of the CTBT.<sup>16</sup> While it is unclear whether China has reacted to this idea specifically,

China has been clear in its reluctance to engage in further dialogue with the United States on nuclear issues generally, as Under Secretary of State for International Security and Arms Control Bonnie Jenkins testified before the Senate in May 2024.<sup>17</sup> In the NPR, the Biden administration has made clear regarding the CTBT that its concerns about the activities of Russia and China at their test sites “do not outweigh the security benefits of the Treaty; indeed, the Treaty’s benefits would include a legally binding basis and tools for challenging that behavior.” It went on to state that the Department of Energy’s stockpile stewardship program “enables the United States to ensure a safe, secure, and effective nuclear deterrent without requiring a return to nuclear explosive testing. This helps advance U.S. non-proliferation objectives and sets a responsible example for all nuclear weapons states.”<sup>18</sup>

When President Putin signed the law on November 2, 2023, withdrawing Russia’s ratification of the CTBT, Secretary of State Antony Blinken issued a statement expressing concern, calling on Russia not to resume testing, and reiterating the U.S. commitment to achieving CTBT entry-into force and upholding its zero-yield nuclear testing moratorium.<sup>19</sup>

If there is a Harris administration after the U.S. presidential election in November 2024, it can be expected to continue a strong policy of support for the CTBT, maintain the moratorium on explosive nuclear testing, and pursue diplomatic efforts to promote dialogue and transparency to address questions concerning activities at the test sites of Russia, China, and the United States.

The policy of a second Trump administration, if that is the outcome of the 2024 U.S. election, is harder to predict. On the one hand, the norm against explosive nuclear testing is strong, U.S. domestic opposition to a resumption of nuclear testing is likely to be strong, and most U.S. experts believe that there is no compelling military or technical rationale for resuming testing that would make it worth the international and domestic political costs. On the other hand, in a Trump administration, any voices in the military and nuclear enterprise and in Congress promoting a resumption of explosive nuclear testing for military or ideological reasons, as reportedly occurred in the first Trump administration<sup>20</sup>, could be more influential, and there may be a greater openness to flouting international norms and domestic public opinion.

The Trump administration’s NPR in 2018 upheld the moratorium on explosive testing but stated it would not seek Senate approval of the CTBT. It also committed to “continue to support the Comprehensive Nuclear Test Ban Treaty Organization Preparatory Committee as well as the related International Monitoring System and the International Data Center, which detect nuclear tests and monitor seismic activity.” It stated that the United States “will not resume nuclear explosive testing unless necessary to ensure the safety and effectiveness of the U.S. nuclear arsenal [...]”<sup>21</sup> but elsewhere noted that the United States must remain ready to resume nuclear testing if necessary “to meet severe technological or geopolitical challenges,”<sup>22</sup> thereby introducing a broader possible rationale for the resumption of testing. In May 2020, The Washington Post reported that the Trump administration was considering whether to conduct a nuclear test in response to concerns about activities at the Russian and Chinese nuclear test sites and as leverage in arms control discussions with both countries.<sup>23</sup>

All of this suggests that a second Trump administration could be more open and more willing to suffer the diplomatic fallout from resuming explosive nuclear testing than would a Harris administration. In an article in *Foreign Affairs* in July/August 2024, President Trump’s former National Security Advisor Robert O’Brien, who presumably could play a senior role in a second Trump administration, wrote: “The United States has to maintain technical and numerical superiority to the combined Chinese and Russian nuclear stockpiles. To do so, Washington must test new nuclear weapons for reliability and safety in the real world for the first time since 1992—not just by using computer models.”<sup>24</sup>

Regardless of who gets sworn in as U.S. president on January 20, 2025, were Russia or China to renounce their unilateral moratoria on explosive nuclear testing and conduct an unambiguous explosive nuclear test, the pressure on any U.S. president to renounce the U.S. moratorium and at some point to conduct a test would be significant.

As for U.S. ratification of the CTBT, it is unlikely that the domestic political environment will become more conducive to Senate action in the near term. Nonetheless, there are actions and events that could improve the prospects. One would be to implement transparency arrangements that would provide the U.S. greater confidence about activities at the Russian and Chinese

nuclear test sites (and vice versa). Another would be for China to ratify the CTBT or agree to do so in tandem with the United States.

## Russian Federation

The USSR was the first among the Nuclear Five (N5) to introduce a moratorium on nuclear testing in 1990. Since the collapse of the USSR, Russia has continued to adhere to the moratorium and has not conducted any explosive nuclear tests.

The CTBT was signed by the Russian Federation in 1996 and ratified in 2000. On the occasion of the 20th anniversary of the opening for signature of the CTBT, in 2016, Russian Deputy Foreign Minister Sergei Ryabkov and the then Executive Secretary of the Preparatory Commission of the CTBT, Lassina Zerbo, published a joint article that appeared in *Foreign Policy*<sup>25</sup> and the Russian-language daily edition of *Kommersant* newspaper.<sup>26</sup> The article stated that Russia hosts and operates the second-largest number of facilities in the IMS and also mentioned that “this is clear and undeniable evidence of Russia’s continued and unwavering commitment to nuclear non-proliferation and the strengthening of strategic stability globally.” It further observed that: “Testing of nuclear weapons was one of the most visible manifestations of the Cold War. Nuclear explosions sent ripples putting peace and security under duress. The struggle to outlaw testing of nuclear weapons became the unifying factor in the global push to stop the arms race and the first international agreement demonstrating that success was possible was the Moscow Treaty on the Prohibition of Nuclear Tests in Three Environments, also known as the 1963 Partial Test Ban Treaty, negotiated by Russia, Britain, and the United States.”<sup>27</sup> Russia’s position on the CTBT remained constant until 2023.

On October 5, 2023, President Putin suggested that Russia might withdraw its ratification of the CTBT as a reciprocal response to the absence of ratification by the United States.<sup>28</sup> Within twenty days, a law on the withdrawal of ratification was approved unanimously in both chambers of the Russian parliament and on November 2, 2023, President Putin signed the decree on the withdrawal of ratification.<sup>29</sup>

On October 18, 2023, when the law on the revocation of ratification was adopted by the lower chamber of the Russian parliament (the State Duma), the United States

coincidentally conducted a subcritical experiment at the Nevada Test Site. Commenting on both events, Konstantin Kosachev, Deputy Speaker of the upper chamber of the Russian parliament (the Federation Council), highlighted that during the period between signing the Treaty and its entry into force, states must refrain from taking actions that would undermine the object and purpose of the treaty.<sup>30</sup> In other words, when approving the law on revocation of ratification, Russian parliamentarians proceeded from the fact that the withdrawal of ratification would not eliminate Russia’s obligations and rights under the CTBT.<sup>31</sup> On the day when the law was adopted by the upper chamber of the Russian parliament, the First Deputy Chairman of the Federation Council Committee on International Affairs, Senator Sergey Kislyak, noted that the CTBT was and remains a key element in the arms control and nuclear non-proliferation architecture: “This is exactly how our country has consistently treated the CTBT and continues to do so throughout all these years, with the aim of bringing all States into its fold. The cancellation of the ratification does not negate the constructive approach towards the CTBT.”<sup>32</sup> The withdrawal of ratification, according to Russian parliamentarians, “will restore parity of obligations with respect to the treaty while maintaining the legal basis for effective international cooperation in the field of nuclear arms control.”<sup>33</sup>

As seen from Moscow, there was “an imbalance between Russia and the United States regarding the scope of obligations under the CTBT”, which was perceived as “unacceptable in the current international situation.”<sup>34</sup> Russian Deputy Foreign Minister Sergei Ryabkov told reporters on October 13, 2023, that the idea to withdraw Russia’s ratification of the CTBT was about restoring “political and legal parity with the United States” because the United States has not ratified the Treaty. (At this time Ryabkov was silent on China’s failure to ratify the Treaty.) Ryabkov explained that Russia “will continue to act within the framework of the CTBT the same as the United States has been doing for 23 years.”<sup>35</sup>

In mid-December 2023, Russia completed the creation of a segment of stations within the framework of the IMS. The last of the 32 Russian facilities was commissioned on Sakhalin Island, in eastern Russia. This step suggests that, despite the decision of the Russian authorities to withdraw the ratification of the CTBT, Moscow remains committed to practical cooperation with the CTBTO in the framework of global efforts to

prevent the resumption of nuclear tests.<sup>36</sup> In his annual address to the Federal Assembly on February 21, 2024, President Putin said that Russia would not be the first to conduct nuclear tests. He cautioned, however, that “if the United States conducts tests, then we will conduct them.”<sup>37</sup> In March 2024, President Putin returned to this topic once again during an interview with a leading Russian TV channel, saying that if the United States were to conduct nuclear tests, it is possible that Russia may do the same.<sup>38</sup>

The withdrawal of Russia’s ratification of the CTBT should be understood in the context of Russia’s strategic signaling. Probably, the visit of the then Russian Minister of Defense Sergey Shoigu to Novaya Zemlya in August 2023 was a signal of this kind. Shoigu’s visit demonstrated that the work on maintaining the test site on Novaya Zemlya is receiving attention at the highest political level.<sup>39</sup> Russia has inherited from the USSR core features of its strategic culture, which continue to influence its approach to transparency regarding certain elements of national nuclear posture. Compared to the Soviet era, Russia’s transparency regarding its nuclear policy has increased. However, Russian strategic culture still inherently leans toward secrecy and a high level of centralization of decision-making.<sup>40</sup> Experts familiar with the Russian strategic culture explain Moscow’s lack of transparency regarding activities at its test site as consistent with this tendency toward secrecy. But the same experts say that if Russia decided to start preparing for nuclear testing, such activities, probably, would be carried out transparently and with messaging aimed at emphasizing the significance of this step for strengthening nuclear deterrence<sup>41</sup> and most likely involve pointing to concerns about U.S. provocative escalatory activities as a further justification.

Neither the Partial Test Ban Treaty (PTBT), nor the CTBT include the definition of a nuclear test. Russia has repeatedly stated that it supports the American concept of “zero yield” and believes that the CTBT prohibits any nuclear weapon test explosion and any other nuclear explosion “on the globe, regardless of its magnitude.”<sup>42</sup> However, some Russian experts consider “zero yield” to be a rather senseless concept and even harmful wording, because it cannot be appropriately operationalized and verified.<sup>43</sup>

In 2001, in response to U.S. concerns about extremely low-yield tests, Russia proposed introducing additional verification measures but only if the U.S. ratified the

CTBT.<sup>44</sup> Russia has been consistent in its desire to encourage the United States to ratify the CTBT. In doing so, Moscow in 2001 declared its readiness to develop additional measures to verify the absence of illegal nuclear activities, going far beyond the provisions of the treaty.<sup>45</sup>

In the current geopolitical situation, Russian officials have indicated they do not see an opportunity to negotiate with the United States and they are unwilling to compartmentalize issues related to the CTBT. Deputy Foreign Minister Sergey Ryabkov has repeatedly reaffirmed Russia’s “position on the impossibility of doing business as usual with the United States in the field of strategic stability and arms control. Until there are signs of a change in Washington’s fundamentally hostile policy towards Russia, this position remains unchanged.”<sup>46</sup> In February 2024, President Putin addressed the Federal Assembly with his annual message, expanding on this issue. He said, “On those issues where America sees benefits in negotiating, they will talk to the Russians. But where it’s not in their interest, there’s nothing to discuss. As they say, business as usual. They will try to defeat us there. But that won’t work. Our position is clear. If you want to discuss critical issues of security and stability important for the planet, you need to do so in a complex way, including all aspects that affect our interests and the security of our country.”<sup>47</sup>

As noted earlier in this paper, Russia indicated it was satisfied that the U.S. experiment conducted in May 2024 was subcritical, as declared by the United States. This suggests that Russia is not seeking to further politicize issues surrounding activities at the test sites at this time.<sup>48</sup>

## People’s Republic of China

China, an Annex 2 state, signed the CTBT in 1996 but has yet to ratify it.<sup>49</sup> China has repeatedly pointed out that it was among the first signatories of the Treaty. On the occasion of the CTBT’s twentieth anniversary in 2016, China’s Vice Foreign Minister Li Baodong stated that his country remains committed to facilitating the Treaty’s early entry into force “in a responsible manner”, that his government encourages the National People’s Congress to discuss ratification, and that it continues to prepare domestically to implement the Treaty.<sup>50</sup> At the same time, he spoke of the “long journey ahead” and cautioned that, as part of creating the “political foundations” for entry into force, it was necessary for all states

to abandon the “zero-sum game” and “Cold War mentality” and to “make efforts to build a new type of international relations featuring win-win cooperation”—in what appeared to be meant as a clear jab at the United States.<sup>51</sup> Of China’s monitoring facilities under the IMS, a number still remain to be installed or certified,<sup>52</sup> and the CTBT continues to engage with China in this regard. Last November, Robert Floyd met with China’s Vice Foreign Minister Ma Zhaoxu to discuss Beijing’s cooperation with the Preparatory Commission’s Provisional Technical Secretariat.<sup>53</sup>

In its compliance report issued in 2020, the U.S. Department of State stated that China had maintained a high level of activity at its Lop Nur nuclear weapons test site throughout 2019 and raised concerns about its adherence to the “zero yield” standard followed by the United States, the United Kingdom, and France in their respective nuclear weapons testing moratoria. Still, the report stopped short of accusing China of conducting supercritical experiments. It also stated that China had been blocking the flow of data from its IMS stations to the CTBT Preparatory Commission’s Provisional Technical Secretariat / International Data Center.<sup>54</sup> The charges related to the “zero yield” were repeated in subsequent years, though no new adherence issues related to nuclear testing moratoria were identified, including in the most recent report released in April 2024.<sup>55</sup> Responding to that report, the Chinese foreign ministry called U.S. accusations “nothing but fabrications” and urged Washington to “stop its self-congratulatory, erroneous finger-pointing.”<sup>56</sup> The U.S. Department of Defense’s “Annual Report on Military and Security Developments Involving the People’s Republic of China” has echoed the State Department’s concerns regarding the PRC’s adherence to the “zero yield” standard.<sup>57</sup>

Increased activity at the Lop Nur site has also been documented by independent experts analyzing satellite imagery. In October of last year, CNN reported that satellite images taken of Lop Nur over several consecutive years and analyzed by Jeffrey Lewis of the James Martin Center for Nonproliferation Studies showed evidence of an expansion of tunnels, the construction of new roads, and the building of a new storage area, among other developments. In a statement to CNN China’s Foreign Ministry criticized the report as “hyping up ‘China’s nuclear threat,’” and described it as “extremely irresponsible.”<sup>58</sup> Three months later, the New York Times reported additional evidence of activity at Lop Nur that had been uncovered by Renny Babiarz.<sup>59</sup>

U.S. intelligence officials interviewed for The New York Times article conceded that while the construction activity at Lop Nur was obvious, its purpose was not: China may be preparing for a nuclear test, they stated, but may not intend to move ahead unless the United States or Russia went first. Yet, as China continues to rapidly expand and modernize its nuclear arsenal, driven not just by military-technical but also geopolitical and status considerations,<sup>60</sup> the United States and the international community more broadly will likely remain concerned that China might feel compelled to return to nuclear testing.

## Other States and the Norm Against Testing

A resumption of nuclear testing by any of the P5 would likely have a cascading effect on other P5 states and would seriously erode their credibility among the non-nuclear weapon states in terms of their enduring commitment to the NPT and the obligation to work toward nuclear disarmament as mandated by the treaty’s Article VI. Frustration among the non-nuclear-weapon states regarding the slow progress toward nuclear disarmament and, relatedly, what they have perceived as an imbalanced implementation of the NPT’s three pillars (of non-proliferation, disarmament, and peaceful uses of nuclear energy) is longstanding. But their dissatisfaction has manifested itself more vehemently since February 2022, as became apparent in national statements issued by countries at the 2022 NPT Review Conference, the 2023 NPT Preparatory Committee meeting, and the 2022 UN First Committee.<sup>61</sup> At these fora, the non-nuclear weapon states also continued to stress the importance of the norm against testing and to call for entry into force of the CTBT. As the commitment to negotiate a test ban treaty was central to getting unanimous consent to the indefinite extension of the NPT in 1995, an unraveling of the CTBT risks accelerating the unraveling of the NPT itself.

Notably, there has also been a growing focus by the non-nuclear weapon states (especially from the Global South) on the humanitarian impact of nuclear weapons, including on the impact of testing, at the UN First Committee. At the 2023 session, the committee passed a new resolution on “Addressing the legacy of nuclear weapons: providing victim assistance and environmental remediation to Member States affected by the use or testing of nuclear weapons.” The resolution called for greater cooperation amongst states on addressing

the humanitarian consequences of nuclear explosions, and it was adopted by a vote of 171-4-6 (with Russia, the United Kingdom, France and the DPRK voting against it). The vote was indicative of a growing effort to advance restitution claims, which relate to demands for compensation from nations or communities that have suffered the consequences of colonialism and nuclear tests, particularly in Africa, Central Asia and the South Pacific.<sup>62</sup> The Treaty on the Prohibition of Nuclear Weapons (TPNW) has given states an additional platform to pursue these demands. At the TPNW's First Meeting of States Parties, a working group was created (at Kazakhstan's initiative) to prepare proposals to assist the victims of nuclear weapons testing and use and to restore the environment, including through the establishment of a trust fund.<sup>63</sup> In light of these developments, the further fraying of the norm against nuclear testing would likely elicit strong pushback from the non-nuclear weapon states, especially in the Global South.

Finally, while concerns over a resumption of nuclear testing have recently and most acutely focused on the three major nuclear powers, especially given the cascading effect that may result from one of them abandoning the moratorium, that is not the only pressure on the norm against testing. There remains the possibility that the DPRK, the only state to have conducted nuclear tests in the 21st century and to have withdrawn from the NPT, could conduct another test, which it has refrained from doing since 2017. Given the current geopolitical environment, including Russia's growing military cooperation with the DPRK, great power competition, and reduced cooperation amongst China, Russia, and the United States to stem global non-proliferation, the DPRK may not perceive the political costs of testing to be as high as they once were.<sup>64</sup>

Cover page: Nuclear artillery test Grable Event. Licensed under Public Domain. Source: [https://commons.wikimedia.org/wiki/File:Nuclear\\_artillery\\_test\\_Grable\\_Event\\_-\\_Part\\_of\\_Operation\\_Upshot-Knothole.jpg](https://commons.wikimedia.org/wiki/File:Nuclear_artillery_test_Grable_Event_-_Part_of_Operation_Upshot-Knothole.jpg)

## Recommendations

To shore up the norm against nuclear testing and reinvigorate steps to bring the CTBT into force, we recommend the following steps:

- ▶ The P5, individually and collectively, should recommit to the CTBT, working to bring it into force, and upholding their unilateral moratoria on explosive nuclear testing.
- ▶ The United States, Russia and China should undertake unilateral and reciprocal test site transparency measures and confidence-building measures to improve mutual confidence concerning each party's activities, intentions and adherence to their moratoria.
- ▶ China and the United States should agree to work in tandem to ratify the CTBT in the same timeframe, and Russia should re-ratify the Treaty. This recommendation is not meant to preclude individual action on the CTBT, but to recognize that acting mutually could facilitate progress in some of these states.
- ▶ The P5 should develop tailored strategies to encourage other Annex 2 states to sign and/or ratify the CTBT.
- ▶ All NPT state parties and CTBT signatories should make individual and collective statements in various multilateral fora on the value of the nuclear testing moratoria and call on the P5 and other states with nuclear weapons to uphold their unilateral moratoria.
- ▶ All CTBT signatories should continue to support and strengthen the CTBTO and IMS system, and should encourage all the Annex 2 states to sign and ratify the Treaty.
- ▶ The expert community in P5 states and beyond can help make the positive case for why the norm against testing and the CTBT advance global security and can help push back against the notion that nuclear tests provide significant advantages<sup>65</sup>.

## Endnotes

- 1 "Obvineniya SShA ne podkrepleny nikakimi dokazatel'stvami" ["The United States' accusations are not supported by any evidence"], Kommersant, June 15, 2020, <https://www.kommersant.ru/doc/4378452#id979971>; Julian Borger, "US security officials 'considered return to nuclear testing' after 28-year hiatus," The Guardian, May 23, 2020, <https://www.theguardian.com/world/2020/may/23/us-security-officials-considered-return-to-nuclear-testing-after-28-year-hiatus>.
- 2 Aleksandr Timokhin, "Rossiya dolzhna nachat' yadernye ispytaniya" ["Russia should start nuclear tests"], Vzglyad, April 19, 2022, <https://vz.ru/opinions/2022/4/19/1153941.html>.
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- 6 Ibid.
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## About Deep Cuts

For years, more and more arms control treaties have been eroding and nuclear disarmament is in a deep crisis. The goal of this research and transfer project is to analyze obstacles to U.S.-Russian nuclear and conventional disarmament, to strengthen European security and to develop concrete risk-reduction measures that limit the potential for military escalation in the short term and aim to cut nuclear stockpiles in the long term. The Deep Cuts Commission was established in 2013 and is coordinated by IFSH. The project partner is the independent Arms Control Association in Washington, D.C.

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## Impress

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