WHY DO WE STILL HAVE THE BOMB?1

TOM Z. COLLINA

I.	Introduction	823
II.	BEST CHANCE LOST: INTERNATIONAL CONTROL	827
III.	THE BARUCH PLAN	834
IV.	The "Super"	836
V.	THE RISE AND FALL OF THE BALLISTIC MISSILE	
	Treaty	841
VI.	REAGAN'S SHIELD OF DREAMS	845
VII.	FUMBLING THE END OF THE COLD WAR	848
VIII.	Senate Rejects the Test Ban	853
IX.	OBAMA GETS HALF A LOAF	859
X.	TRUMP TURNS BACK THE CLOCK	865
XI.	BIDEN KEEPS HOPE ALIVE	867
XII.	CONCLUSION: THE BOMB IS A SURVIVOR	868

We have lamented our failure to control these weapons at the beginning—when it would, we tell ourselves, have been so much easier.—McGeorge $Bundy^2$

Nuclear weapons are now banned under international law, seventy-six years after the first nuclear test. However, this does not mean that the bomb is going away anytime soon. Since the atomic bomb was first invented, there have been numerous international efforts to ban or control it at the highest levels of government. Presidents Truman, Reagan, Obama, and others pursued similar efforts. Why did they try, why did they fail, and how might we try again? Uprooting the bomb will take sustained effort by a committed president. Now that President Biden is in the White House with a pro-arms control agenda, we must remember that without strong public support, the President's attention will be diverted. It is not enough for a president to want to do the right thing. The public must demand it.

I. Introduction

Seventy-two years after the first atomic bomb was detonated in the New Mexico desert, the United Nations passed the first treaty to prohibit nuclear weapons. In 2017, 122 states

^{1.} This article has been adapted with permission from William J. Perry & Tom Z. Collina, The Button: The New Nuclear Arms Race and Presidential Power from Truman to Trump 169 (2020).

^{2.} McGeorge Bundy, Danger and Survival: Choices about the Bomb in the First Fifty Years 130 (2018).

at the United Nations voted in favor of the Treaty on the Prohibition of Nuclear Weapons (TPNW), and the treaty entered into force on January 22, 2021.

"This treaty is the beginning of the end for nuclear weapons," said Setsuko Thurlow, one of the last survivors of the atomic bombing of Hiroshima in 1945. "For those of us who have survived the use of nuclear weapons, this treaty gives us hope." 3

You might ask what took so long. The possession of biological weapons has been banned by treaty since 1972.⁴ Chemical weapons have been banned internationally since 1993.⁵ Until now, nuclear weapons were the only weapons of mass destruction not prohibited by international law, despite the catastrophic consequences that have resulted from their use.

The adoption of the TPNW was the result of a decadelong effort organized by the International Campaign to Abolish Nuclear Weapons (ICAN), based in Geneva. Upon adoption, ICAN executive director, Beatrice Fihn, stated:

No one believes that the indiscriminate killing of millions of civilians is acceptable—no matter the circumstance—yet that is what nuclear weapons are designed to do. Today the international community rejected nuclear weapons and set a clear standard against the acceptability of these weapons. It is time for leaders around the world to match their values and words with action by signing and ratifying this treaty.⁶

^{3.} Press Release, Int'l Campaign to Abolish Nuclear Weapons, States Agree to Ban Nuclear Weapons (Sept. 19, 2017), https://yubanet.com/world/nuclear-weapons-prohibition-treaty-open-for-signature-by-world-leaders/ [hereinafter Sept. ICAN Press Release].

^{4.} U.N. Office for Disarmament Affairs, Biological Weapons Convention, https://www.un.org/disarmament/biological-weapons/ (last visited Apr. 2, 2021).

^{5.} Chemical Weapons Convention, Org. for the Prohibition of Chem. Weapons, https://www.opcw.org/chemical-weapons-convention (last visited Apr. 2, 2021).

^{6.} Press Release, Int'l Campaign to Abolish Nuclear Weapons, States Agree to Ban Nuclear Weapons (July 7, 2017), https://www.icanw.org/states_agree_to_ban_nuclear_weapons [hereinafter July ICAN Press Release].

As of this writing, the treaty has not been signed by any of the nine states that possess nuclear weapons. Therefore, it appears that the TPNW will not eliminate nuclear weapons anytime soon. However, the passage of the treaty and its growing international support are a clear indication that the majority of the world's nations do not accept nuclear weapons and consider them illegitimate.

Fihn believes that even if the nuclear-armed states do not sign the treaty in the near future, the TPNW is "dragging people toward thinking about the elimination of nuclear weapons. And questioning nuclear weapons. And strengthening the notion that there's something wrong with having nuclear weapons. And shaming countries a little bit for having nuclear weapons."

Together, 127 nations signed a pledge to cooperate "in efforts to stigmatize, prohibit, and eliminate nuclear weapons in light of their unacceptable humanitarian consequences and associated risks." These nations know that if there is a nuclear war, they will be harmed, even if they play no role in the conflict and have no say in the outcome. They know that the best way to prevent the use of nuclear weapons is to eliminate them entirely from the face of the earth.

The TPNW is the largest and most recent international movement to ban nuclear weapons, but it is not the first. In fact, since the atomic bomb was first invented, there have been international efforts to ban or control it at the highest levels of government. President Harry Truman, the first and only leader to order the use of nuclear weapons in war, soon sought to put them under international control. President Reagan, President Obama, and others pursued similar efforts. Why did they try, and why did they fail?

The elimination of nuclear weapons makes more sense today than ever before, not only for non-nuclear nations, but also for the United States, Russia, and other nuclear states. For

^{7.} Interview with Beatrice Fihn, Exec. Dir., Int'l Campaign to Abolish Nuclear Weapons (Apr. 30, 2019).

^{8.} History of the TPNW, Int'l Campaign to Abolish Nuclear Weapons, https://www.icanw.org/history_of_the_tpnw (last visited Apr. 4, 2021); Vienna Conference on the Humanitarian Impact of Nuclear Weapons, Fed. Ministry, Republic of Austria, Eur. and Int'l Affairs, https://www.bmeia.gv.at/fileadmin/user_upload/Zentrale/Aussenpolitik/Abruestung/HINW14/HINW14_Austrian_Pledge.pdf.

the United States, as the nation with the strongest conventional military forces, the nuclear weapons of potential adversaries can act as an asymmetric equalizer, undermining United States security. Nuclear weapons are the only immediate existential threat to the United States. Climate change, while also an immense threat, does not threaten our existence immediately.

"Nuclear war today poses the one existential threat to the United States," wrote Steven Pifer, with the Brookings Institute. "In a nonnuclear world, America would enjoy the advantages of geography (the protection afforded by two wide oceans and friendly neighbors in Canada and Mexico), the world's most powerful conventional forces, and an unrivaled network of allies." ¹⁰

Other nations are fully aware that the effects of nuclear war would not be limited to those foolish enough to use nuclear weapons. Radiation and climate impacts (including lower global temperatures and reduced food production) would spread throughout the globe, causing great damage to nations that had no input in the decision to unleash the bomb. It is this notion of immense global danger in the hands of so few decision makers that gave rise to the movement for a treaty banning nuclear weapons altogether. If all states bear the awful consequences, then all states should be part of the solution.

And yet, the bomb celebrated its seventy-fifth birthday on July 16, 2020, and it is doing just fine. It was invented to defeat Hitler, who died before it was first tested. It was used to defeat Imperialist Japan, now a democratic nation. It multiplied to deter the Soviet Union and "win" the Cold War, both of which ended three decades ago. Most Americans have long forgotten about mushroom clouds, fallout shelters, and "duck and cover," and the bomb continues to exist.

Despite successful efforts to reduce nuclear arsenals, the bomb has been normalized. It is just one more thing the inter-

^{9.} Steven Pifer, 10 Years After Obama's Nuclear-Free Vision, the US and Russia Head in the Opposite Direction, Brookings Inst.: Order from Chaos Blog (Apr. 4, 2019), https://www.brookings.edu/blog/order-from-chaos/2019/04/04/10-years-after-obamas-nuclear-free-vision-the-us-and-russia-head-in-the-opposite-direction/.

^{10.} Id.

national community wishes it could do something about. Although the number of weapons in the world has declined dramatically, it still remains alarmingly high. 11 Efforts to reduce that number stalled in the Trump administration. 12 Like a mirage in the desert, the closer the number gets to zero, the harder it is to get there. Countries that have the bomb may discuss elimination, but their actions indicate otherwise. In fact, Russia and the United States, two countries that possess about ninety percent of the world's nuclear weapons, are both in the early stages of building a new generation of bombs, at a cost of trillions of dollars. 13

Ultimately, the world cannot escape the dangers of nuclear war so long as the weapons remain in existence. Former Soviet Premier Mikhail Gorbachev wrote in 2019 that "nuclear deterrence, instead of protecting the world, is keeping it in constant jeopardy." Given what we know about the dangers of atomic weapons, can the world survive another seventy-five years?

This article will now take a close look at past efforts to control the bomb, why they failed, and how we might try again.

II. BEST CHANCE LOST: INTERNATIONAL CONTROL

Even before the United States dropped the bomb on Japan in 1945, an enlightened few were thinking about what would come next. In one of the earliest examples of atomic scientists seeking to influence political leaders, Chicago physi-

^{11.} World Nuclear Weapon Stockpile, Ploughshares Fund, https://ploughshares.org/world-nuclear-stockpile-report (last visited Apr. 4, 2021).

^{12.} See, e.g., Tom Z. Collina, How to Starve Trump's Lust for Nukes, POLITICO: MAGAZINE (Sept. 10, 2019), https://www.politico.com/magazine/story/2019/09/10/donald-trump-nuclear-arms-race-228058 (describing the Trump administration's record on arms control); Tamsin Shaw, Trump's Impact on Nuclear Proliferation, JUST SEC. (Nov. 18, 2020), https://www.justsecurity.org/73422/trumps-impact-on-nuclear-proliferation (describing the Trump administration's policy on nuclear energy and arms).

^{13.} Rose Aguilar & Laura Flynn, Your Call: Modernizing U.S. nuclear arsenal could cost \$1 trillion, 91.7FM S.F. KALW LOCAL PUB. RADIO (Aug. 4, 2016), https://www.kalw.org/post/your-call-modernizing-us-nuclear-arsenal-could-cost-1-trillion#stream/0.

^{14.} Mikhail Gorbachev, *The Madness of Nuclear Deterrence*, Wall St. J. (Apr. 29, 2019), https://www.wsj.com/articles/the-madness-of-nuclear-deterrence-11556577762.

cist and Nobel laureate James Franck formed a group to consider the future of the bomb. 15 He teamed up with Eugene Rabinowitch, who later founded the Bulletin of the Atomic Scientists, and Leo Szilard. Szilard wrote the letter for Albert Einstein's signature to President Roosevelt that resulted in the Manhattan Project. This group, which produced the Franck Report, argued that, instead of dropping the bomb on Japan without warning, it would be preferable to stage a demonstration. They argued that this path might improve the possibilities for postwar international control of atomic weapons:

It will be very difficult to persuade the world that a nation which was capable of secretly preparing and suddenly releasing a weapon, as indiscriminate as the rocket bomb and a thousand times more destructive, is to be trusted in its proclaimed desire of having such weapons abolished by international agreement.¹⁶

However, military considerations (like the need to maintain the element of surprise in an attack) held sway, and the United States bombed Hiroshima without warning. The Franck Report also argued that if the first use of the bomb was not followed by an international agreement to control it, there would be a "flying start" to an "unlimited armaments race."

Danish physicist Niels Bohr also saw an opportunity for international cooperation on nuclear energy and the dangers of a possible arms race. Bohr argued that the United States and Great Britain should discuss the bomb with the Soviet Union before using it.¹⁸

Bohr met with British Prime Minister Winston Churchill in May 1944, but Churchill did not agree with Bohr. Bohr then met with Roosevelt, who agreed that he and Churchill should talk to Stalin. Churchill remained opposed and Roosevelt died

^{15.} *The Franck Report*, Atomic Heritage Found., https://www.atomicheritage.org/history/franck-report (last visited Apr. 3, 2021).

^{16.} James Franck et al., The Franck Report: Report of the Committee on Political and Social Problems (June 11, 1945), *quoted in* Joseph Cirincione, Bomb Scare: The History & Future of Nuclear Weapons 16 (2007).

^{17.} CIRINCIONE, *supra* note 17, at 15 (quoting the Franck Report).

^{18.} Bundy, supra note 2, at 114.

before the subject could be broached with the Russians in Potsdam, Germany in July 1945.¹⁹

The scientists continued to press their case, stating: "Russia, France, and China be advised that we have made considerable progress in our work on atomic weapons, that these may be ready to use during the present war, and that we would welcome suggestions as to how we can cooperate in making this development contribute to improved international relations." However, this early effort was frustrated by distrust of the Soviets in the United States and Great Britain.

The scientists argued, correctly, that Russia could make its own bomb in three to four years. Churchill, in particular, was concerned that giving the Soviets too much information could accelerate their program and erode the US–British advantage.²¹ This paranoia came back to haunt them.

Truman arrived in Potsdam nine days after the first bomb test at Alamogordo, New Mexico, and twelve days before Hiroshima, with the mission of telling Stalin the bare minimum. The United States had never had a conversation about the bomb with its most powerful wartime ally, and most likely postwar competitor. As Truman recorded in a letter, their eventual exchange was brief:

TRUMAN: We have a new weapon of unusual destructive force.

STALIN: Glad to hear it, I hope you'll make good use of it against the Japanese.²²

Truman told Stalin of a new powerful weapon, without even mentioning its nuclear capabilities. He made no effort to start a dialogue on what would become the nuclear age.

Historian David Holloway argues that even if Truman had told Stalin about the bomb, Russia would have built it anyway,

^{19.} Id.

^{20.} J.R. Oppenheimer, *Science Panel's Report to the Interim Committee*, AtomicArchive.com (June 16, 1945) http://www.atomic archive.com/Docs/ManhattanProject/Interim.shtml (last visited Apr. 4, 2021).

^{21.} See generally First Steps toward International Control, 1944-1945, U.S. Dep't of Energy, Off. of Hist. & Heritage Res., The Manhattan Project, https://www.osti.gov/opennet/manhattan-project-history/Events/1945-present/international_control_1.htm (last visited Apr. 4, 2021) (noting Churchill's general reluctance to share info about the atomic bomb).

^{22.} Id.

stating that, "As the most powerful symbol of American economic and technological might, the atomic bomb was ipso facto something the Soviet Union had to do."²³

In any case, the sad irony is that Stalin already knew about the Manhattan Project and had already begun serious atomic research under Russian scientist Igor Kurchatov.²⁴ An advisor to Churchill warned Truman that "While it may be wise to keep the secret to ourselves for the moment, it will not remain a secret long, and its disclosure after the war may start the most destructive competition in the world. . . . If ever there was a matter for international control, this is one."²⁵ By not sharing information that Russia already had, Truman only succeeded in confirming Stalin's fears of American deceit.

We will never know whether the post-war effort to achieve international control of nuclear energy would have fared better if wartime outreach to Stalin had been handled in a way that built trust, rather than undermined it. However, as former national security advisor McGeorge Bundy said, the way it was handled "may well have made a hard prospect even harder." ²⁶ It should have been clear to Truman and Churchill that the key to international control was Moscow. As the United States' major post-war competitor, if any nation would follow the United States in acquiring the bomb, it would be Russia.

When Truman authorized the bombing of Japan, everything changed. He wrote in his diary: "We must constitute ourselves trustees of this new force—to prevent its misuse, and to turn it into the channels of service to mankind." He failed miserably. By the end of his presidential term, the United States had about one thousand nuclear weapons and the arms race was in full swing.

The war with Japan now over, Secretary of War, Henry Stimson, began to see the wisdom in engaging with Russia regarding the bomb. At his last cabinet meeting on September 21, 1945, Stimson urged Truman to make a proposal to the

^{23.} David Holloway, Stalin and the Bomb 133 (2008).

^{24.} Martin Zuberi, *Stalin and the Bomb*, 23:7 Strategic Analysis 1133, 1141 (1999), https://doi.org/10.1080/09700169908455111.

^{25.} Bundy, supra note 2, at 125.

^{26.} Id. at 126.

^{27.} Id. at 133.

Soviets.²⁸ The meeting turned into a long and heated discussion over what many viewed as a dangerous plan to share bomb secrets with Moscow. What happened next shows that little has changed in Washington over the past seventy-five years.

The Army and Navy were opposed to sharing nuclear information with the Soviet Union. In order to prevent such sharing, they leaked their version of the story to the *New York Times*, which ran the headline: "Plea to Give Soviet Atom Bomb Secret Stirs Debate in Cabinet . . . Armed Forces Opposed." The article stated that Stimson was urging talks with Russia at the United Nations, but that the Army and the Navy were "prepared to resist the proposal to the hilt." ²⁹

Thus began a long tradition of military opposition to nuclear diplomacy. Hardly an auspicious start. The discussion continued inside the Truman administration. Dean Acheson, Under Secretary of State, argued that, "If the invention is developed and used destructively there will be no victor and there may be no civilization remaining." He warned that:

The joint development of this discovery with the U.K. and Canada must appear to the Soviet Union to be unanswerable evidence of an Anglo-American combination against them. For us to declare ourselves trustee of the development for the benefit of the world will mean nothing more to the Russian mind than an outright policy of exclusion.³¹

Acheson called for immediate opening to the Russians, discussions with the British and the United States Congress, and "informed and extensive public discussion." Without such discussion, he warned that "the public and Congress will be unpre-

^{28.} Id. at 116.

^{29.} Felix Belair, Jr., Plea to Give Soviet Atom Secret Stirs Debate in Cabinet; No Decision Made on Wallace Plan to Share Bomb Data as Peace Insurance Armed Forces Opposed Proponents Argue Russia Will Have Weapon Soon Anyway — Conflict in Senate Bills Army-Navy Opposition Plea Made to Give Russia Atom Data Secret Kept at Potsdam Connally Is Annoyed, N.Y. Times (Sept. 22, 1945), https://www.nytimes.com/1945/09/22/archives/plea-to-give-soviet-atom-secret-stirs-debate-in-cabinet-no-decision.html, quoted in Bundy, supra note 2, at 139–40.

^{30.} Memorandum from the Acting Secretary of State to President Truman (Sept. 25, 1945) (2 Foreign Relations of the United States 49), *quoted in* Bundy *supra* note 2, at 141.

^{31.} Id.

pared to accept a policy involving substantial disclosure to the Soviet Union."³²

Congress' unwillingness to accept a sharing policy soon manifested itself. Senator Tom Connolly of Texas, Democratic Chairman of the Senate Foreign Relations Committee, on the day the *Times* story broke, stated that, "Complete secrecy should be maintained regarding the atomic bomb." It is typical for such debates, then and now, to quickly become polarized and exaggerated.

In reality, opening to Russia on the bomb did not require the United States to reveal details beyond what had already been disclosed, at least initially.³⁴ President Truman sent his plan to control the bomb to Congress on October 3, 1945, just two months after the bombs were dropped. Truman declared:

Civilization demands that we shall reach at the earliest possible date a satisfactory arrangement for the control of this discovery in order that it may become a powerful and forceful influence toward the maintenance of world peace instead of an instrument of destruction. . . . The hope of civilization lies in international arrangements looking, if possible, to the renunciation of the use and development of the atomic bomb, and directing and encouraging the use of atomic energy and all future scientific information toward peaceful and humanitarian ends. The difficulties in working out such arrangements are great. The alternative to overcoming these difficulties, however, may be a desperate armament race which might well end in disaster. . . . Discussion of the international problem cannot be safely delayed until the United Nations Organization is functioning and in a position to adequately deal with it. I therefore propose to initiate discussions, first with our associates in this discovery, Great Britain and Canada, and then with other nations, in an effort to effect agreement on the con-

^{32.} Id.

^{33.} James Chace, Acheson: The Secretary of State Who Created the American World 121 (1998).

^{34.} Id.

ditions under which cooperation might replace rivalry in the field of atomic power.³⁵

Despite this fine rhetoric, Truman apparently had no intention of sharing the secrets of the bomb with Russia. He later mentioned, "If they catch up with us on that, they will have to do that on their own hook, just as we did."³⁶ Truman, in agreement with his military advisors, saw no conflict between secrecy regarding the bomb and international control.

Truman's plan was informed by the March 1946 Acheson-Lilienthal Report, named after committee chairmen Dean Acheson and David Lilienthal. This report called for an international "Atomic Development Authority" that would have a global monopoly on control of nuclear materials, from mining to manufacturing, from uranium to plutonium, and from enrichment plants to nuclear reactors (beyond laboratory size).³⁷ The organization would seek to control the bomb, as well as promote nuclear energy. A ban on the bomb itself, but not its ingredients was impractical because it would require intrusive inspections that would be impossible. Therefore, if the world's raw materials for the bomb were controlled by an international organization, no single nation would be able to build a bomb in secret.

The report also proposed that the United States give up its monopoly on the bomb and offer to tell the Soviets key information in exchange for an agreement that the Soviets not build their own atomic weapons.³⁸ However, Washington planned to keep its bombs until the details of international control could be worked out.

^{35.} Harry S. Truman, Special Message to the Congress on Atomic Energy, Oct. 3, 1945, 1 Pub. Papers 365–66, quoted in Bundy, supra note 2, 142–43.

^{36.} Harry S. Truman, *The President's News Conference at Tiptonville, Tennessee, Oct. 8, 1945*, The American Presidency Project, Univ. of Cal. Santa Barbara, https://www.presidency.ucsb.edu/documents/the-presidents-newsconference-tiptonville-tennessee (last visited Apr. 2, 2021).

^{37.} Acheson-Lilienthal Report on the International Control of Atomic Energy, Homeland Sec. Digital Libr. 32 (Mar. 16, 1945), https://www.hsdl.org/?abstract&did=446606.

^{38.} *Id.* at 53 (describing the proposal to tie information-sharing to outlawing atomic weapons).

III. THE BARUCH PLAN

The United Nations was still brand new, having been founded on October 24, 1945 in San Francisco. Nuclear disarmament is the United Nations General Assembly's oldest aspiration. Its first resolution, adopted on January 24, 1946, urged the "elimination from national armaments of atomic weapons and of all other major weapons adaptable to mass destruction." ³⁹

President Truman gave Bernard Baruch the job of bringing his plan for international control of the atom to the United Nations. Secretary of State James Byrnes, who recommended Baruch to Truman, later admitted that the choice was "the worst mistake I ever made." ⁴⁰ An elder statesman beyond his prime, Baruch was chosen more for his ability to reassure the Senate and the public, rather than his ability to work effectively with the Soviets.

Baruch introduced the plan, which came to be known as the Baruch Plan, at the United Nations in June 1946, and by the end of the year, it was dead. Instead of international control, the Soviets wanted a prohibition on the possession, production, and use of atomic weapons. They objected to a key part of the Baruch Plan: that, in the event of a violation, no state would be able to veto a United Nations decision on how to respond, including war.⁴¹ The Soviets viewed this as a direct challenge to their veto power as a permanent member of the Security Council. Baruch pushed for a Security Council vote in December, and although it passed 10-0, Russia and Poland abstained. The issue would not be able to move forward without Soviet support.⁴² Baruch resigned in January 1947.

Talks continued at the United Nations in 1947 and 1948. However, during this period there were no direct behind-the-

^{39.} G.A. Res. 1 (I), at ¶ 5(a) (Jan. 1, 1946), https://www.un.org/ga/search/view_doc.asp?symbol=A/RES/1(I).

^{40.} Oscar E. Anderson, Jr. & Richard G. Hewlett, 1 The New World, 1939/1946: A History of the United States Atomic Energy Commission 555 (1962), *quoted in Bundy, supra* note 2, at 162.

^{41.} Randy Rydell, *Looking Back: Going for Baruch: The Nuclear Plan That Refused to Go Away*, Arms Control Association (June 2006), https://www.armscontrol.org/act/2006-06/looking-back-going-baruch-nuclear-plan-refused-away.

^{42.} The Baruch Plan, AtomicArchive.com, https://www.atomicarchive.com/history/manhattan-project/p6s5.html (last visited Mar. 22, 2021).

scenes talks between Washington and Moscow to address their differences. Soviet opposition only hardened. Moscow would accept no limitations on its atomic program, which the world later discovered, was because they were developing their own bomb. Soon after Hiroshima, in mid-August 1945, Stalin decided to move forward with the development of the atomic bomb. "A single demand of you, comrades," Stalin said to his scientists, "provide us with atomic weapons in the shortest possible time. . . . Provide the bomb—it will remove a great danger to us."

To the Soviets, Baruch's demand that they give up the option to develop the bomb in exchange for the establishment of an international organization that would monopolize nuclear materials meant relinquishing their top-secret program to neutralize the American advantage and secure their future. The American offer was seen as a ploy to maintain its advantage.

Given the lack of trust between the two nations, and Stalin's fear that Russia could be the next target, his decision to go nuclear was simple and swift. Similarly, the Americans did not trust the Soviets' diplomatic offer. Presidential advisor and architect of containment George Kennan wrote in 1946 that the Russian proposal to ban the bomb was intended to "effect the earliest possible disarming of the United States with respect to atomic weapons." This moment was likely humanity's best chance to control the bomb and prevent the arms race and Cold War. Missing it was a failure of political imagination to fully grasp what was coming, and the necessity to prevent it.

The Baruch Plan may have been doomed to fail, but what about other approaches? Even if Stalin would have never allowed the United States to keep its monopoly on the bomb, could the United States and the Soviet Union have agreed to limits on numbers and sophistication? Could they have achieved parity at a low level, and then stopped and agreed to ban the hydrogen bomb? The United States and the Soviet

^{43.} David Holloway, Entering the Nuclear Arms Race: The Soviet Decision to Build the Atomic Bomb, 1939-45, 11 Soc. Stud. Sci. 159, 183 (1981), quoted in Bundy, supra note 2, at 177.

^{44. 1} Foreign Relations of the United States, 1946 861–65 (Ralph R. Goodwin, Neal H. Petersen, Marvin W. Kranz, William Slany & S. Everett Gleason eds., 1946), *quoted in* Bundy, *supra* note 2, at 185.

^{45.} Bundy, supra note 2, at 214.

Union eventually saw the wisdom of agreed numerical and testing limits, but not until they wasted blood and treasure on tens of thousands of weapons of increasing sophistication.

The effort for international control failed for reasons that should come as no surprise: (1) the mutual distrust between the United States and the Soviet Union; (2) an early addiction to secrecy and a fear that sharing information would help the Soviets acquire the bomb; (3) the emerging politics of the bomb, under which politicians wanted to look "tough" and were afraid of appearing "weak" in the eyes of the public; (4) military opposition to cooperative approaches to security; (5) the novelty of nuclear weapons and the lack of experience in how to control them; (6) the leaking of secret information to serve a political agenda; (7) the realization that people are policy—if you don't have the right messenger, the message might not matter; (8) Roosevelt's sudden death and Truman's new role, where a new postwar nuclear order was not being pushed from the top down; (9) and finally, the lack of imagination on all sides as to how daunting the consequences of failure would be.

Truman and Stalin's failure to control the bomb allowed the atomic weed to grow and firmly establish itself. In the next decade, the number of weapons would grow, the budgets would increase, and the amount of people and jobs involved would skyrocket. Future efforts to control the bomb would now have to take on a formidable new force: the ever-expanding nuclear bureaucracy, with its strong, vested interest in building and deploying more bombs.

IV. THE "SUPER"

The Soviets tested their first nuclear device in August 1949, and almost immediately, the United States began efforts to develop a weapon of even greater magnitude. The United States responded with the hydrogen bomb, known as the "super."⁴⁶ A small circle of insiders in the United States had known since 1942 that thermonuclear weapons were theoretically possible, taking their energy primarily from fusion, rather

^{46.} *Hydrogen Bomb – 1950*, Atomic Heritage Found., https://www.atomicheritage.org/history/hydrogen-bomb-1950 (last visited Mar. 22, 2021).

than fission, and producing explosive power a thousand times greater than the Hiroshima bomb.⁴⁷

"There is an immense gulf between the atomic and the hydrogen bomb," Winston Churchill said in 1955. With the new weapon "the entire foundation of human affairs was revolutionized, and mankind placed in a situation both measureless and laden with doom."

The importance of the decision on the super was second only to Roosevelt's order to build the fission bomb in 1941. The General Advisory Committee of the Atomic Energy Commission (AEC) met to consider the issue in October 1949. Technical director of the Manhattan Project, Robert Oppenheimer, chaired the committee, which included science luminaries Enrico Fermi, Isidor Isaac Rabi, and Glenn Seaborg, among others. At the end of a two-day meeting, the eight members reached a unanimous conclusion:

We all hope that by one means or another, the development of these weapons can be avoided. We are all reluctant to see the United States take the initiative in precipitating this development. We are all agreed that it would be wrong at the present moment to commit ourselves to an all-out effort toward its development.⁴⁹

Additionally, two members, Fermi and Rabi, thought that a commitment not to develop the super should be conditioned on "the response of the Soviet government to a proposal to renounce such development." The majority of the group found that "the extreme dangers to mankind inherent in the proposal wholly outweigh any military advantage that could come from this development . . . a super bomb might become a weapon of genocide." 51

^{47.} Id.

^{48.} HC Deb (1 Mar. 1955) (537) cols. 1894–95, quoted in Bundy, supra note 2, at 198.

^{49.} Herbert York, The Advisors: Oppenheimer, Teller and the Superbomb 155–56 (1989), *quoted in* Bundy, *supra* note 2, at 208.

^{50.} General Advisory Committee's Majority and Minority Reports on Building the H-Bomb, AtomicArchive.com, https://www.atomicarchive.com/resources/documents/hydrogen/gac-report.html (last visited Mar. 22, 2021).

^{51.} Id.

The General Advisory Committee delivered its unanimous finding to the AEC, which was split on the issue: three to two.⁵² Lilienthal, the Chairman, was opposed to the super, reporting to Truman his view that the existing nuclear arsenal was already an adequate deterrent against Russia.⁵³ Meanwhile, Congress weighed in. Democrats were under pressure for being "soft on Communism," and Senator Brien McMahon, Chairman of the Joint Committee on Atomic Energy, argued for the super and against the scientists' report. The senator said that, "if we let Russia get the super first, catastrophe becomes all but certain."

General Omar Bradley, Chairman of the Joint Chiefs of Staff, wrote that it would be "intolerable" to let the Soviets get the thermonuclear bomb first, and that an American "unilateral" decision not to develop the bomb would not stop others from doing so. Truman met with his national security team, which informed him that the Soviet Union was capable of building a super. "In that case," Truman said, "we have no choice. We'll go ahead." The meeting lasted seven minutes.

Lilienthal later wrote that Truman was "clearly set on what he was going to do before we set foot inside the door." The Joint Chiefs had won and the headline of following day's New York Times read, "Truman Orders Hydrogen Bomb Built." The rapid development of the super became American policy, and Truman apparently never considered the issue again. Soon after Truman's decision, Albert Einstein read a prepared statement on national television, criticizing the "hysterical character" of the nuclear arms race and arguing that the decision to build the super was based on a "disastrous illusion."

^{52.} Chace, *supra* note 33, at 231-33.

^{53.} David E. Lilienthal, Memorandum from the United States Atomic Energy Commission to the President, Appendix "A" (Nov. 9, 1949) (U.S. Dep't of State, Off. of the Historian, https://history.state.gov/historicaldocuments/frus1949v01/d213 (last visited Apr. 2, 2021)).

^{54.} Letter from Brien McMahon to President Truman (1949), 1 Foreign Relations of the United States 30–31, quoted in Bundy, supra note 2, at 211.

^{55.} David Lilienthal, 2 The Journals of David Lilienthal 632–33, quoted in Bundy, supra note 2, at 213.

^{56.} Id

^{57.} Anthony Leviero, Truman Orders Hydrogen Bomb Built for Security Pending an Atomic Pact; Congress Hails Step; Board Begins Job, N.Y. Times (Feb. 1, 1950), https://www.rarenewspapers.com/view/610210.

^{58.} Eric Schlosser, Command and Control 124 (2013).

He stated that, "Every step appears as the unavoidable consequence of the preceding one. In the end, there beckons more and more clearly general annihilation." ⁵⁹

The United States conducted its first test of the hydrogen bomb on November 1, 1952, on the island of Elugelab in Enewetak Atoll, in the Pacific Ocean. Its yield was 10.4 megatons (10,400 kilotons) of TNT, five hundred times larger than the Hiroshima bomb. 60 Russia tested its first fusion device less than one year later on August 12, 1953. The largest hydrogen bomb test ever was the Soviet Union's Tsar Bomba in 1961, with a yield of 50 megatons. 61 China tested its first thermonuclear bomb in 1967 and fifty years later, in 2017, North Korea surprised the world by testing its own thermonuclear weapon. 62 All of the early discussions regarding whether to build hydrogen bombs were based on a consideration of actions by the Soviet Union. The United States never considered the possibility that a small rogue nation like North Korea could build such a weapon.

It appears that Truman never seriously considered the alternative proposed by Fermi and Rabi (if he even knew of it) to "invite the nations of the world to join us in a solemn pledge not to proceed in the development or construction of weapons in this category." The Soviet Union was likely the intended audience for such a proposal, which essentially recommended an agreement not to test thermonuclear weapons, which could have been verified by remote detection. Although high-yield thermonuclear tests would be readily detectable without intrusive inspections inside Russia, Truman never pursued this idea.

^{59.} Id.

^{60.} Hydrogen Bomb - 1950, supra note 46.

^{61.} The Tsar Bomba actually had a yield of 100 megatons, but the scientists scaled it down because they feared the delivery aircraft would not be able to get far enough away to avoid damage from the blast. That fear turned out to be justified, because even at the reduced yield and with the bomb being dropped by parachute to allow the aircraft to get farther away from the detonation, the aircraft received considerable blast damage. *Tsar Bomba*, Atomic Heritage Found. (Aug. 8, 2014), https://www.atomicheritage.org/HISTORY/TSAR-BOMBA.

^{62.} Elise Hu, *North Korea Claims Successful Hydrogen Bomb Test*, NPR (Sept. 3, 2017), https://www.npr.org/sections/thetwo-way/2017/09/03/523913820/north-korea-possibly-conducts-sixth-nuclear-test-south-korea-says.

^{63.} York, supra note 49, at 155–56, quoted in Bundy, supra note 2, at 214.

By the 1950's, the dream of international control of the bomb was dead and the mutual distrust between the United States and Soviet Union was alive and well. The military's "full steam ahead" attitude toward the atomic bomb held sway with Truman and others, over the scientists' calls for bilateral cooperation. The Cold War was now in full swing, and the Soviets were regarded as the enemy. As Bundy put it, "Truman and Acheson had learned not to trust the Russians, and both of them now had more critics on the right than on the left."

Notably, a majority of the General Advisory Committee opposed the super, regardless of the Soviet response.⁶⁵ They did not want to be forced to support the hydrogen bomb if a diplomatic opening to Russia failed, as was likely. To them, the super was simply not the right answer to the Soviet fission test, despite the political pressure to move forward remaining powerful.⁶⁶

As it turns out, the Soviets had been working on a hydrogen bomb since 1948. According to Soviet physicist Andrei Sakharov, Stalin was committed to building a hydrogen bomb regardless of what America did.⁶⁷ Thus began a period of increasing political polarization regarding the bomb. Some opposed the ongoing development of nuclear weapons, while others opposed any efforts to limit their development. Few people supported compromise solutions, such as developing the super while withholding a decision to test and build the weapons. Further, Truman could have continued development of the super while pursuing a thermonuclear test ban with Russia.

Another notable feature of this debate was that power was growing among the bomb's advocates, while those who were opposed lost influence. For Truman to oppose the super, or even slow its development, would have been difficult and politically risky. To oppose the super, Truman would have had to

^{64.} Bundy, supra note 2, at 217.

^{65.} Id.

⁶⁶ *Id*

^{67.} Sakharov stated that, "Any U.S. move toward abandoning or suspending work on a thermonuclear weapon would have been perceived either as a cunning, deceitful maneuver or as evidence of stupidity or weakness. In any case, the Soviet reaction would have been the same: to avoid a possible trap and to exploit the adversary's folly." Andrei Sakharov, Memoirs 99 (Richard Lourie trans., 1990).

stand up to the military and powerful forces in Congress, and begin a public debate in which he would have to clearly state his case for a world without the hydrogen bomb. He might have won this debate, but it would have taken valuable time and effort. Instead, he took the easy way out, which was to build more nuclear weapons and develop the super.

Truman went on to approve eight plutonium production reactors and two uranium enrichment plants to support a massive expansion of the nuclear arsenal, which grew from 1,000 bombs in 1953 to nearly 18,000 by 1960, peaking at 31,000 in 1967.⁶⁸ Despite Truman's example, later presidents have not always followed his path. Leaders can choose to challenge conventional wisdom, stand up to the nuclear bureaucracy, and take political risks. When it comes to progress on nuclear disarmament, presidential leadership is the key ingredient for success.

V. THE RISE AND FALL OF THE ANTI-BALLISTIC MISSILE TREATY

By the late 1960s, Soviet missile forces started to catch up to earlier, exaggerated American predictions. The quantity of Russian intercontinental ballistic missiles (ICBMs) increased to one thousand by 1969. The Soviet ICBMs were larger and less sophisticated than the United States' ICBM, the Minuteman.⁶⁹ At the same time, anti-missile systems were beginning to mature. The Johnson administration had "irrefutable evidence" that the Soviets were deploying an anti-ballistic missile (ABM) system around Moscow to defend the city against longrange missiles.⁷⁰ The administration assumed (incorrectly) that the Soviets planned to field the system across their vast

^{68.} David Alan Rosenberg, *The Origins of Overkill, Nuclear Weapons and American Strategy, 1945–1960,* 7 Int'l Sec. 3, 23 (1983), *in Bundy, supra* note 2, at 231; Hans M. Kristensen & Robert S. Norris, *Global Nuclear Weapons Inventories, 1945–2013,* 69 Bull. Atomic Scientists 75 (2013).

^{69.} Robert S. Norris & Hans M. Kristensen, *Nuclear U.S. and Soviet/Russian Intercontinental Ballistic Missiles*, 1959-2008, 65 Bull. Atomic Scientists 62, 62 (2015).

^{70.} Robert McNamara questioned why any country would create an ABM system exclusively around one city, fueling the assumption that the ABM system was intended for the entire country. Robert S. McNamara, Blundering into Disaster 55 (1986).

nation.⁷¹ Initially, Congress supported an in-kind response, funding an ABM system supported by the Army 1966.⁷² However, the Johnson administration refused to build it because President Johnson and McNamara believed that it was ineffective and would provide little, if any, protection.⁷³

Nevertheless, the Joint Chiefs of Staff were pushing for ABMs. In a December 1966 meeting with President Johnson and the chiefs, McNamara's opposition to the ABM put him in a weak position, particularly because Congress had already funded the ABM program and the program had the support of the Joint Chiefs. McNamara proposed that the administration support the program, but hold off on deployment until the United States had made every effort to negotiate an agreement with the Soviet Union.⁷⁴ President Johnson recognized McNamara's useful compromise and accepted it.

In June 1967, at the height of his struggles with the Vietnam War, Johnson and McNamara met with the Soviet premier, Alexei Kosygin, in Glassboro, New Jersey, to discuss ABMs.⁷⁵ McNamara explained that deployment of ABMs would lead to an escalation of the arms race, which was not advantageous for either country. In response, Kosygin banged the table and said, "Defense is moral; offense is immoral!" and the discussion abruptly concluded.⁷⁶

In the face of what appeared to be Soviet determination to deploy ABMs, the Johnson Administration responded by expanding its offensive forces through the creation of multiple independently targetable reentry vehicles (MIRVs), which allowed multiple warheads (each of which could be aimed at a separate target) to be placed on a missile. This tactic, if also implemented by the Soviet Union, would dramatically increase offensive forces in both countries. Therefore, the administration decided to develop MIRVs, but delay their deployment until it could explore an agreement to ban ABMs. According to McNamara, "If such a treaty was negotiated, the MIRV pro-

^{71.} *Id*.

^{72.} The initial ABM program was titled "Nike Zeus" and later became "Nike X."

^{73.} McNamara, supra note 70, at 55.

^{74.} Id. at 56.

^{75.} *Id*.

^{76.} Id. at 57.

gram would be scrapped."⁷⁷ Ultimately, the ABM treaty placed a ban on nationwide defenses but, in yet another major missed opportunity, the MIRV program remained.

The 1968 elections brought Richard Nixon into the White House, and the new administration continued Johnson's pursuit of arms control with the Soviets for three reasons: to preserve rough parity of American and Soviet strategic weapons, to save money by maintaining parity at lower levels and forgoing expensive new weapons, and to reduce uncertainty in their relationship, "making both sides less nervous about potential threats to its strategic capabilities," in the words of Henry Kissinger, Nixon's National Security Advisor.⁷⁸

Like Johnson, President Nixon supported ABMs but, surprisingly, these proposals had lost popularity in Congress. The scientific community was skeptical of ABMs, given the technical difficulty of missile defense. The Nixon Administration thought that the Pentagon's ABM plans were of low value, finding that deploying interceptors to protect Minuteman ICBMs at four sites would "save only about ten Minutemen more than no defense at all." News of possible missile deployments sparked opposition in communities near deployment sites since no one wanted to be a target and strategically, defenses were bound to provoke bigger and more sophisticated offenses. Vice President Spiro Agnew had to break a tie vote in Congress, where the Democrats controlled both houses, to pass Nixon's ABM program.

Seeing the political writing on the wall, Nixon decided to make the best of a weak hand and use the ABM program as a bargaining chip with the Soviet Union. In the Soviet Union, General Secretary Leonid Brezhnev and a new generation of leaders sought to promote detente through arms control and were determined to forge a more peaceful relationship with Washington.⁸⁰

^{77.} Id. at 58.

^{78.} Memorandum from Henry Kissinger to the President (May 23, 1960) (Nat. Sec. Archive 4, https://nsarchive2.gwu.edu/NSAEBB/NSAEBB60/abm01.pdf) (analyzing Strategic Arms Limitation Proposals).

^{79.} William Burr, *The Secret History of the ABM Treaty, 1969–1972*, Nat. Sec. Archive (Nov. 8, 2001), https://nsarchive2.gwu.edu/NSAEBB/NSAEBB60.

^{80.} See Excerpts from Speech by Brezhnev on Nuclear Arms Talks, N.Y. Times (May 19, 1982), https://timesmachine.nytimes.com/timesmachine/1982/

As part of the Strategic Arms Limitation Talks Agreement (SALT I) in 1972, both sides agreed to limit themselves to one site for a local ABM defense and to ban nationwide defenses. ⁸¹ This was a huge victory for nuclear sanity on two levels. First, it restrained a new weapons system, ABMs, that threatened to open a new avenue in the arms race. Second, it prevented those interceptors from stimulating an arms race for new offensive weapons.

However, it would be incorrect to view the ABM treaty as an example of inspired leadership by Nixon or Henry Kissinger. They both wanted to deploy ABM systems and struck a deal with Russia only when they thought that they could not win congressional support. Moreover, although SALT I placed limits on long-range missiles, it failed to control MIRVs, and thus led to a dramatic increase in strategic warheads. The United States increased its strategic warheads from 1,800 in 1970 to 6,100 in 1975; the Soviets, who were lagging in MIRV technology, expanded from 1,600 to 2,500.82

Why did Nixon and Kissinger leave MIRVs uncontrolled? As William Hyland, a close confidant of Kissinger, wrote in *Mortal Rivals* (1987):

Refusal to ban MIRVs was the key decision in the entire history of SALT I. Both Nixon and Kissinger thought it would be a weak move at the outset of a new administration and the opening of a long negotiation. And it would have provoked a bloody fight inside the administration and in the Congress. It was a truly fateful decision that changed strategic relations, and changed them to the detriment of American security.⁸³

Nixon and Kissinger had set out to deploy ABMs, however, congressional opposition and smart diplomacy by chief negoti-

^{05/19/145998.}html?pageNumber=8 (describing Brezhnev's position in favor of renewing arms talks).

^{81.} Strategic Arms Limitations Talks/Treaty (SALT) I and II, U.S. Dep't of State, Off. of the Historian, https://history.state.gov/milestones/1969-1976/salt (last visited Apr. 3, 2021).

^{82.} Hans M. Kristensen & Robert S. Norris, *Global nuclear weapons invento*ries, 1945-2013, 69 Bull. of the Atomic Scientists 75, 78 (2013).

^{83.} Michael Krepon, *Retrospectives on MIRVing in the First Nuclear Age*, Arms Control Wonk (Apr. 5, 2016), https://www.armscontrolwonk.com/archive/1201264/retrospectives-on-mirving-in-the-first-nuclear-age.

ator Gerard C. Smith and others resulted in the 1972 ABM Treaty instead.⁸⁴ However, the agreement failed to ban MIRVs. Kissinger admitted in 1974, "I would say in retrospect that I wish I had thought through the implications of an MIRV-ed world more thoughtfully in 1969 and 1970 than I did."⁸⁵ Twenty years later, President George H. W. Bush signed the START II Treaty⁸⁶ with Russia which finally banned MIRVs. However, the treaty never entered into force, in part because Russia rejected it after President George W. Bush withdrew from the SALT I in 2002.⁸⁷ Soon thereafter, the Russians began building a new class of MIRVs.

Despite the failure to control MIRVs, the ABM Treaty was a success and created the foundation for future arms reductions. But, like all arms control efforts, the treaty was based on a counterintuitive idea: that it is better to leave yourself vulnerable to nuclear attack than to try to defend yourself.

VI. REAGAN'S SHIELD OF DREAMS

President Reagan was never comfortable with the idea of mutual vulnerability: that Americans could be attacked at any time by Soviet nuclear missiles, no matter how unlikely. Accordingly, he proposed a dual solution: build a missile defense system that would block a Soviet attack, and simultaneously seek to eliminate nuclear weapons through diplomacy. Reagan, however, did not appear to understand the incompatible nature of these goals and ultimately, his commitment to unachievable defenses was stronger than to a nuclear-free world.

^{84.} Treaty on the Limitation of Anti-Ballistic Missile Systems, U.S.-U.S.S.R., art. II, May 26, 1972, 729 U.N.T.S. 161, https://treaties.un.org/doc/Publication/UNTS/Volume%20944/volume-944-I-13446-English.pdf.

^{85.} Walter Isaacson, Kissinger: A Biography 322 (2005).

^{86.} Treaty Between the United States of America and the Russian Federation on Further Reduction and Limitation of Strategic Offensive Arms (START II), U.S.- Russ., Jan. 3, 1993, S. Treaty Doc. No. 103-1 (1993).

^{87.} Wade Boese, *U.S. Withdraws from ABM Treaty; Global Response Muted*, Arms Control Ass'n (July/Aug. 2002), https://www.armscontrol.org/act/2002-07/news/us-withdraws-abm-treaty-global-response-muted.

^{88.} Daryl G. Kimball, *Looking Back: The Nuclear Arms Control Legacy of Ron- ald Reagan*, Arms Control Today 34 (2004), https://www.armscontrol.org/act/2004_07-08/Reagan.

Reagan gave mixed messages from the outset. Reagan launched his Strategic Defense Initiative (SDI), known popularly as "Star Wars," in March 1983. In his January 1985 inaugural address, Reagan stated that, "We seek the total elimination one day of nuclear weapons from the face of the Earth."89 Reagan told high school students in Glassboro, New Jersey, in 1986—the same place where Johnson met with Soviet premier Kosygin to talk missile defense—that his ideal missile defense would allow the United States to "put in space a shield that missiles could not penetrate" and that could protect the country "from nuclear missiles just as a roof protects a family from rain."90 This goal was as appealing as it was technically unattainable. Reagan's "Star Wars" dream never progressed far enough to result in a withdrawal from the ABM Treaty, however, it was clear that Reagan would do so if it was necessary for his space shield to become reality.

The money and time spent by the Reagan Administration on SDI might have all been worth it had Reagan, like Nixon, been willing to trade away ABMs in exchange for a diplomatic deal with the Soviets. However, this was not the case. In October 1986 at the Reykjavik Summit with Gorbachev, Reagan flatly refused to agree to limit the testing of long-range defensive systems. This was a historic missed opportunity to eliminate nuclear weapons, second only to Truman and Stalin's failure to achieve international control in 1946. At the summit, Reagan asked Gorbachev if he would support a proposal such that "all nuclear explosive devices would be eliminated, including bombs, battlefield systems, cruise missiles, submarine weapons, intermediate-range systems, and so on," and Gorbachev agreed. 92

^{89.} Ronald Reagan, Second Inaugural Address (Jan. 21, 1985), *in* Inaugural Addresses of the Presidents of the US from George Washington to George Bush 338, 342 (1989).

^{90.} Ronald Reagan, Remarks Following the High School Commencement Exercises in Glassboro, New Jersey (June 19, 1986), Ronald Reagan Presidential Library and Museum, https://www.reaganlibrary.gov/archives/speech/remarks-following-high-school-commencement-exercises-glassboro-new-jersey, quoted in Bundy, supra note 2, at 572.

^{91.} Jane M.O. Sharp, After Reykjavik: Arms Control and the Allies, 63 Int'l Affs. 239, 249 (1987).

^{92.} Philip Taubman, The Partnership: Five Cold Warriors and Their Quest to Ban The Bomb 256 (2012).

However, this most far-reaching proposal in arms control history was undone by Reagan's misplaced belief in an effective national ABM system, which more than thirty years later is no closer to realization. Gorbachev wanted missile defense research to be limited to laboratory experiments, but Reagan refused and missed a golden opportunity to make the world a much safer place. The two leaders made it clear that neither nation had any intention of attacking the other with nuclear weapons, and in fact, they had been open to eliminating all of them. This diplomatic momentum eventually led to the Intermediate-Range Nuclear Forces (INF) Treaty in 1987 and later the START Treaty, signed by President George H. W. Bush and Gorbachev in 1991.⁹³

However, Reagan had also solidified the hope and possibility of ABMs in the American imagination. From then on, it would be much more difficult for politicians to resist the impulse to support missile interceptors to "defend America" from nuclear attack. Reagan made ABMs respectable—indeed, popular—but his plan was still too big, expensive, and complex. It was, in fact, unachievable. President George H. W. Bush and his son, George W. Bush, brought missile defense down to Earth. They discussed ABMs aimed not at a full-scale Russian attack, which most experts saw as impossible, but at an accidental launch of a few missiles from Russia or China, or an attack from a rogue state like North Korea. North Korea's first satellite launch in 1998 set the stage for President George W. Bush to withdraw from the ABM Treaty in 2002 and establish a rudimentary ABM system.

Now that the United States has fielded a long-range ABM system, it is hard to imagine that the country will ever eliminate it, no matter how ineffective it is. Thus, it is difficult to see how Washington could ever recreate a legally binding limit on ABMs, as was embodied by the ABM Treaty. Yet, Russia views ABM limits as a precondition to moving forward with nuclear arms reductions. This is a major reason why the bomb still ex-

^{93.} Treaty Between the United States of America and the Union of Soviet Socialist Republic on the Elimination of their Intermediate—Range and Shorter-Range Missiles, together with the Memorandum of Understanding and Two Protocols, Dec. 8, 1987, S. Treaty Doc. No. 100-11; Andrew Glass, Bush and Gorbachev Sign Nuclear Arms Pact, July 31, 1991, Politico (Jul. 31, 2018, 12:00 AM), https://www.politico.com/story/2018/07/31/bush-and-gorbachev-sign-nuclear-arms-pact-july-31-1991-743837.

ists. The Republican campaign to deploy ABMs, started by Reagan and delivered by George W. Bush, has essentially created a floor below which Russia will not reduce its strategic nuclear weapons.

VII. FUMBLING THE END OF THE COLD WAR

The end of the Cold War and the collapse of the Soviet Union brought a rare opportunity for the United States to not only reduce nuclear weapons, but also to transform its relationship with Russia. However, thirty years later, the relationship between the United States and Russia is at an all-time low.

The decade after the Soviet collapse was difficult for most Russians. The country was experiencing a deep economic recession, crime was rampant, President Boris Yeltsin was an embarrassment, and they felt disrespected by other nations, particularly the United States.⁹⁴ Russians blamed these issues on Gorbachev, their new democracy, and Washington, which some believed was inhibiting Russia's recovery. In a troubling sign, some Russians began to yearn for the "good old days" of the Soviet Empire, before the collapse of the repressive Soviet system.⁹⁵

The NATO alliance, which had been established to keep the Soviet Union out of Western Europe, had a historic opportunity to open up to Russia and forge a new partnership. As the Soviet-led Warsaw Pact dissolved, Eastern European nations sought to join NATO.⁹⁶ However, NATO had no plan for how to do this without alienating Russia. If not handled correctly, this process could scuttle an opportunity to work cooperatively with Moscow to reduce the threat from nuclear weapons.

Secretary of State James Baker assured Gorbachev that NATO would not expand "one inch eastward" during a February 9, 1990, meeting, and documents show that Gorbachev only accepted German reunification—over which the Soviet Union had a legal right to veto under treaty—because he was told that NATO would not expand after he withdrew his forces

^{94.} William J. Perry, My Journey at the Nuclear Brink 147-152 (2015).

^{95.} *Id*.

^{96.} Id.

from Eastern Europe.⁹⁷ Gorbachev received such assurances from James Baker, President George H. W. Bush, West German Foreign Minister Hans-Dietrich Genscher, West German Chancellor Helmut Kohl, CIA Director Robert Gates, French President Francois Mitterrand, British Prime Minister Margaret Thatcher, British Foreign Minister Douglas Hurd, British Prime Minister John Major, and NATO Secretary-General Manfred Woerner.⁹⁸

The United States was not prepared to offer NATO membership to Russia, but instead proposed setting up the Partnership for Peace (PFP), into which former Warsaw Pact states would be invited to join. 99 This would be an auxiliary of NATO but would stop short of membership. To help build a new partnership with Russia, Deputy Secretary of Defense William J. Perry met with Russian Defense Minister Pavel Grachev at NATO in 1993. After succeeding Aspin as Secretary of Defense in 1994, Perry hosted a dinner in Grachev's honor with all NATO defense ministers. Grachev was then invited to the NATO meeting that year as a way of establishing good relations between Russia and NATO.

A period of remarkable collaboration followed. Russia agreed to join the PFP, Grachev was allowed to attend NATO meetings (without voting rights), and Moscow appointed a senior officer to serve as a permanent representative. Grachev chose a first-class officer for the post, who later told Perry: "I spent most of my career doing detailed planning for a nuclear strike on NATO forces. I never dreamed that I would be standing here at NATO headquarters, talking with NATO officers, and planning joint peacekeeping exercises!" 100

^{97.} James A. Baker III, U.S. Sec'y of State, Record of Conversation with Mikhail Gorbachev in Moscow (Feb. 9, 1990), *in* Nat'l Sec. Archive 5, https://nsarchive.gwu.edu/dc.html?doc=4325680-Document-06-Record-of-conversation-between (last visited Apr. 4, 2021).

^{98.} David Majumdar, Newly Declassified Documents: Gorbachev Told NATO Wouldn't Move Past East German Border, The Nat'l Interest: The Buzz Blog (Dec. 12, 2017), https://nationalinterest.org/blog/the-buzz/newly-declassified-documents-gorbachev-told-nato-wouldnt-23629.

^{99.} See The Partnership for Peace Programme, NATO, https://www.sto.nato.int/Pages/partnership-for-peace.aspx (last visited Mar. 22, 2021) (providing an overview of the Partnership for Peace).

^{100.} Perry, supra note 94, at 118.

Russia participated in PFP exercises in the United States and Ukraine, and hosted PFP exercises that included troops from the United States, other NATO nations, and Ukraine. These peacekeeping exercises turned out to be valuable training for the peacekeeping operation in Bosnia. When NATO deployed military forces into Bosnia in late 1995, Russia

offered to send one of its best paratrooper brigades to join the effort, which was led by an American general. To negotiate this, Perry met with Grachev in the United States, who at first insisted that his troops could not report to a NATO commander. So, Perry took Grachev on a tour of Fort Riley, where he rode a ceremonial cavalry horse, and then to Whiteman Air Force Base, where he sat in the pilot seat of a B-2 bomber. All the while, they discussed how to resolve the thorny question Russian involvement in the NATO operation in Bosnia. Grachev finally agreed to let his troops serve under the "tactical command" of an American commander, as long as it was not a NATO commander. 102

The success of the Bosnia mission demonstrated how effective NATO could be when it operated with both European-wide cooperation and Russian involvement. There was an effort to create some version of the Marshall Plan for Eastern European nations to develop their economies and support their democracies. Unfortunately, this did not materialize. Still, the PFP had proven its value, and now its members wanted full NATO membership. Yet, Russia still saw NATO as a potential threat, even more so if its former buffer states were to become members. The United States needed more time to bring Russia into the Western security circle. Perry wanted to delay the process for a few years so that Moscow had more time to work with NATO and would not react negatively to new states joining.¹⁰³

Then, in 1996, fresh off his success at the Dayton Peace Accords, State Department Assistant Secretary Richard Holbrooke proposed that NATO invite Poland, Hungary, the Czech Republic, and the Baltic states to join. Perry disagreed and explained his concerns to President Clinton. Clinton called a meeting of the National Security Council where Perry

^{101.} Id. at 122-23.

^{102.} Id. at 123.

^{103.} Id. at 127-28.

made his case. Surprisingly, neither Secretary of State Warren Christopher nor National Security Advisor Anthony Lake spoke out.¹⁰⁴ Vice President Al Gore argued in favor of immediate expansion. Clinton agreed with Gore, and he approved immediate membership for Poland, Hungary, and the Czech Republic, but delayed consideration of the Baltic states until later, mistakenly believing that they could manage the problems with Russia.¹⁰⁵

This pivotal meeting was the beginning of the end for the warming relationship with Moscow. Looking back, Perry regretted that he did not fight more effectively for his position. Prior to the National Security Council meeting, he could have met with Christopher and Lake to rally them to his side, or written a paper laying out his case to be distributed before the meeting. Afterward, Perry considered resigning, but decided that he would stay and try to help reduce the growing mistrust.

In an open letter to President Clinton, more than forty foreign policy experts, including Bill Bradley, Sam Nunn, Gary Hart, Paul Nitze, and Robert McNamara, expressed their concerns about NATO expansion as both expensive and unnecessary given the lack of a Russian threat at that time.¹⁰⁷ In 1998 George Kennan posited that NATO expansion was "the beginning of a new Cold War," arguing that Russia would likely react adversely to the expansion.¹⁰⁸

Since then, NATO kept Russia at arm's length and expanded its membership to include former Soviet states. Moscow viewed this expansion as a threat and regarded the 2004 inclusion of the Baltic states (which had been part of the Soviet Union for decades) as "marching the NATO threat up to their border." With a tragic lack of forethought, the United States and NATO acted as if Moscow's concerns did not matter. Russia was particularly alarmed by NATO's actions in Kosovo (which were carried out without United Nations or Rus-

^{104.} Id. at 128.

^{105.} Id. at 128-29.

^{106.} Id. at 129.

 $^{107.\ \,}$ Zoltan Barany, The Future of NATO Expansion: Four Case Studies $17\ (2003).$

^{108.} Thomas Friedman, World Affairs; Now a Word from X, N.Y. Times (May 2, 1998), quoted in Perry, supra note 94, at 147.

^{109.} Perry, *supra* note 94, at 148.

sian approval), the fielding of ABMs in Eastern Europe, and the continued march of NATO expansion to potentially include Georgia and Ukraine.

When President Obama entered office in 2009, he announced that he would try to repair the damage and seek to "press the reset button" on the relationship between the United States and Russia. To For a while, it seemed to work, and President Dmitry Medvedev (who took over temporarily from Putin) had a more positive attitude toward Washington. Although the New START Treaty was signed in 2010 during this brief opening, Medvedev stepped down to make way for Putin's return. Hafter Putin's re-election in 2012, the relationship went into free fall. Large demonstrations occurred in Russia against Putin after the election, and Putin believed that they were organized and financed by the United States. When the new American Ambassador, Mike McFaul, arrived, the Moscow media reported that he was sent by Obama to help overthrow Putin. 112

By this time, Putin had decided to give up on the West and "make Russia great again" by appealing to Russian nationalism, fueled by anti-American rhetoric. In 2014, Russia hosted the Winter Olympics in Sochi and put on an impressive show to announce to the world that Russia was back. However, it was later revealed that Russian athletes had used illegal drugs in the Games, and Russia was barred from the 2018 Winter Games in South Korea. 113 Soon after, Russia began military operations in Crimea and moved troops into Eastern Ukraine. 114 As if to make it perfectly clear to Americans that Moscow could not be trusted, the Russian government interfered in the 2016 U.S. presidential election. 115

The collapse of U.S.-Russia relations from 1997 to the present is a tragic tale. What started as a promising post-Cold

^{110.} Id. at 149.

^{111.} Id. at 149-50.

^{112.} Id. at 151.

^{113.} Id.

^{114.} Id.

^{115.} See, e.g., Karen Yourish et al., A Timeline Showing the Full Scale of Russia's Unprecedented Interference in the 2016 Election, and its Aftermath, N.Y. Times (Sept. 20, 2018), https://www.nytimes.com/interactive/2018/09/20/us/politics/russia-trump-election-timeline.html (setting out the timeline for Russia's interference in the 2016 U.S. Election).

War courtship, with great potential to reduce nuclear dangers, has drastically deteriorated. NATO expansion, NATO action against Serbia, and NATO ABM deployments played a key role. Together, they were seen by Moscow as signs of encroachment and disrespect for Russia and its interests.

The currently poisonous relationship between Washington and Moscow has become a key roadblock to the reduction of nuclear arsenals and the adoption of less threatening policies and postures. The United States must find a way to create a constructive dialogue with Russia on nuclear security. "Deterrence cannot protect the world from a nuclear blunder or nuclear terrorism," George Shultz, Sam Nunn, and Bill Perry wrote in the Wall Street Journal. 116 "Both become more likely when there is no sustained, meaningful dialogue between Washington and Moscow." 117

VIII. SENATE REJECTS THE TEST BAN

After years of atmospheric nuclear tests, in 1959, radioactive deposits were found in wheat and milk in the northern United States. 118 As scientists and the public became aware and concerned, opposition to nuclear testing grew. A global halt to nuclear testing had been a central, bipartisan objective in the United States since President Eisenhower first sought a comprehensive ban. After the Cuban Missile Crisis, President Kennedy and Premier Khrushchev almost achieved a halt in 1963, but had to settle for a ban on tests in the atmosphere, underwater, and in space. 119 Their agreement still allowed for tests underground, which reduced radioactivity from reaching the environment but did nothing to stop the arms race.

Thirty years later, President Bill Clinton led a global campaign to ban all nuclear tests, and in 1996, the United Nations General Assembly adopted the Comprehensive Nuclear Test

^{116.} George Shultz, William Perry, & Sam Nunn, *The Threat of Nuclear War Is Still with Us*, Wall St. J. (Apr. 10, 2019), https://www.wsj.com/articles/the-threat-of-nuclear-war-is-still-with-us-11554936842.

^{117.} Id

^{118.} Nuclear Test Ban Treaty, John F. Kennedy Presidential Libr. & Museum, https://www.jfklibrary.org/learn/about-jfk/jfk-in-history/nuclear-test-ban-treaty (last visited Apr. 3, 2021).

^{119.} Id.

Ban Treaty (CTBT).¹²⁰ During the ratification process, however, the CTBT ran into roadblocks, and an effective testing ban still remains out of reach. In the summer of 1995, the 180 members of the Nuclear Non-Proliferation Treaty (NPT) met in New York to extend the treaty.¹²¹ The United States and the other nuclear-armed nations wanted to extend the NPT indefinitely. However, states without the bomb were concerned that there had not been enough progress on nuclear disarmament as required by Article 6 of the treaty. As a political down payment for indefinite extension, the nuclear-armed states agreed to seek a CTBT by 1996.¹²² Although the treaty was signed by seventy-one nations, including the United States, Russia, and China, not enough members of the Senate shared this goal, and so the treaty was not ratified by the United States.¹²³

In retrospect, the indefinite extension of the NPT was a mistake. States without nuclear weapons were rightly worried that if they gave up periodic votes to extend the pact, they would lose their leverage to call for greater progress on nuclear disarmament. The main promise made in 1995, to achieve the CTBT, remains incomplete, and other than New START, there has been little progress on disarmament in the past twenty-five years. It is this lack of progress that led in part to the rise of the ban treaty movement.

There will be an international conference in 2021 (delayed from 2020) to mark the NPT's fiftieth anniversary and review the pact's effectiveness. 124 Twenty-five years ago, the states with nuclear weapons had to make the case that they were living up to their disarmament commitments, in order to

^{120.} Status of Treaties: Comprehensive Nuclear Test Ban Treaty, U.N. Treaty Collection, (Apr. 3, 2021 9:15 AM) https://treaties.un.org/Pages/ViewDetails.aspx?src=IND&mtdsg_no=XXVI-4&chapter=26&clang=_en.

^{121. 1995} Review and Extension Conference of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons, *Organization and Work of the Conference*, at 3-4 U.N. Doc. NPT/CONF.1995/32 (Part I) (May 1995).

^{122.} Id. at 10.

^{123.} Daryl Kimball, *Nuclear Testing and Comprehensive Test Ban Treaty (CTBT) Timeline*, Arms Control Ass'n (July 2020), https://www.armscontrol.org/factsheets/NuclearTestingTimeline.

^{124.} Gustavo Zlauvinen (President-Designate of the 2020 Review Conference on the Nuclear Nonproliferation Treaty), Letter dated Oct. 28, 2020 from the President-designate to all States Parties (Oct. 28, 2020), https://www.un.org/sites/un2.un.org/files/npt_president-designate_letter_28_oct_2020.pdf.

convince the non-weapon states to extend the treaty. Now that the NPT is permanent, the nuclear states essentially ignore the NPT, and we have lost what had been a significant lever to bring international attention to the issue.

President Clinton agreed to sign the CTBT, but was concerned about securing the support of the military and weapons labs, which conducted nuclear tests and thus stood to lose federal funding if testing stopped. If either opposed the treaty, it would be very difficult to garner Senate support, and if both opposed the treaty, it would be impossible to achieve ratification. As Secretary of Defense, Bill Perry was in favor of the CTBT and told President Clinton that he would take on the job of bringing the Joint Chiefs and weapons labs on board. 125 He had the support of the Chairman, General John Shalikashvili, and he eventually worked assiduously with the other chiefs, who were initially reluctant. The chiefs agreed that they would support the treaty if they could insert a clause requiring annual evaluation by the weapons lab directors, stating that they could perform their mission without testing. 126 Perry was confident that Clinton would agree to the clause, so the military came on board.

Perry called a meeting of the lab directors to try to better understand their concerns. Since the annual certification eased both the chiefs' concerns and the concerns of the lab directors, the primary discussion with the directors was over the definition of the test ban: specifically whether the ban would allow low-yield nuclear tests. The lab directors wanted to be able to conduct low-yield laboratory tests that they believed the Russians would also conduct, because they could not be detected. Perry's assessment was that the lab directors did not consider this a make-or-break issue.¹²⁷

While these internal discussions were underway, considerable pressure was coming from outside the government for a true "zero-yield" treaty. In the summer of 1995, over 35,000 citizens (activated by a strong coalition of nongovernmental organizations) contacted the White House calling for a truly comprehensive nuclear test ban. 128 This media attention and

^{125.} Perry, supra note 94, at 113.

^{126.} Id.

^{127.} Id.

^{128.} Kimball, supra note 123.

public pressure was helpful in the internal discussions with the lab directors, and they decided not to make low-yield tests a condition for their support. As a result, with the support of both the military and the weapons labs, Perry was confident that the Clinton Administration would be able to achieve ratification in the Senate.

On August 11, 1995, President Clinton announced his support for a "true zero-yield" test ban. Had Clinton submitted the treaty for ratification quickly, he may have succeeded. But, due to the actions of the United Nations and the lack of urgency on the part of the Administration, the treaty languished for years before being submitted for ratification. ¹²⁹ By the time the treaty was submitted for ratification, General Shalikashvili and Perry had both left the government. The agreements that they had secured had begun to waver, and new leaders in the military and weapons labs undermined the treaty through key politicians in Congress.

When Clinton finally sent the CTBT to the Senate, the Senate was under Republican control. Senator Jesse Helms (R-NC), whose Foreign Relations Committee has jurisdiction over treaties, stated that the CTBT was a low priority and that he would only review it after the Administration sent him two unrelated pacts: the 1997 amendments to the SALT I (which delineated the point at which an ABM would be considered strategic or nonstrategic) and the Kyoto Protocol on climate change, both of which Helms wanted to kill. ¹³⁰ In other words, Helms was holding the CTBT hostage.

Politicians had always played politics with nuclear weapons, but this was different. During the Cold War, once agreements were reached, the Senate, after vigorous debate, would ratify them. This was the first Democratic nuclear treaty brought to a Republican Senate after the Cold War. Republicans no longer felt constrained by Cold War standards of conduct and saw themselves free to play politics with nuclear se-

^{129.} Id.

^{130.} Press Release, Arms Control Ass'n, Senate Rejects Comprehensive Test Ban Treaty; Clinton Vows to Continue Moratorium (Sept. 1999), https://www.armscontrol.org/act/1999-09/press-releases/senate-rejects-comprehensive-test-ban-treaty-clinton-vows-continue [hereinafter Arms Control Ass'n Press Release].

curity.¹³¹ Moreover, with the nuclear arms race over, the public had turned its attention to other issues.

However, the bottom fell out of the Clinton presidency when the story broke that Clinton had an affair with Monica Lewinsky in January 1998. The House of Representatives impeached Clinton that December and the Senate acquitted him in February 1999. Republicans needed sixty-seven votes to remove Clinton from office and came up short. Although the legal ordeal was over, the political damage was done.

Republicans, frustrated that Clinton had slipped through their fingers, took aim at his congressional priorities. In July 1999, all forty-five Democratic senators signed a letter urging Helms to conduct hearings on the CTBT and report it to the full Senate for debate. When Helms snubbed the request, Senator Byron Dorgan (D-ND) threatened to hold up Senate business unless the treaty received a vote. This is going to be a tough place to run if you do not decide to bring this issue to the floor of the Senate and give us the opportunity to debate [the CTBT], he warned on September 8, 1999.

Helms knew that the Republicans already had the votes lined up to kill the CTBT. James Schlesinger, who once headed the Defense and Energy departments, and Senator Jon Kyl (R-AZ) had been working quietly behind the scenes to organize the opposition. They only needed thirty-four votes, which they had and more. Meanwhile, the Democrats believed that if there was a vote, Republicans would not carry through with their threat to vote against the CTBT because it enjoyed broad public support. Meanwhile is a considerable of the constant of the

^{131.} The Senate passed the START II Treaty in January 1996, but this treaty was signed by President George H. W. Bush and never went into force. Russia withdrew from START II after President George W. Bush withdrew from the ABM Treaty in 2002. Amy F. Woolf, Cong. Research Serv., RL30033, Arms Control and Nonproliferation Activities: A Catalog of Recent Events 11-12 (2006).

^{132.} Bill Clinton Impeachment: Looking Back at 1998 after Donald Trump's 2nd Acquittal, ABC 7 (Feb. 14, 2021), https://abc7chicago.com/clinton-impeachment-presidents-that-have-been-impeached-waspresidential-history/5694474/.

^{133.} Arms Control Ass'n Press Release, supra note 130.

^{134.} Id.

^{135.} Id.

^{136.} See Steven Kull, Survey Says: Americans Back Arms Control, Arms Control Ass'n (June 2004), https://www.armscontrol.org/act/2004_06/Kull (A 1998

Confident that he could defeat the treaty, Helms proposed a vote on the CTBT and Democrats unwisely accepted the deal, which was a massive intelligence failure on behalf of the White House, Democratic senators, and outside groups. With the vote just days away, President Clinton, Secretary of State Madeleine Albright, and Secretary of Defense William Cohen, finally launched a high-profile effort to win Senate support for the treaty.¹³⁷ Despite Clinton's command of the arguments, the effort was too little, too late.

The day before the vote, it was clear that the CTBT would be defeated. ¹³⁸ To prevent a damaging blow to American credibility, a bipartisan group of sixty-two senators wrote to the Republican leadership asking for support in delaying the vote until the next Congress. Senate Majority Leader Trent Lott (R-MS) and Minority Leader Tom Daschle (D-SD) were on the verge of an agreement, but senators Helms, Paul Coverdell (R-GA), James Inhofe (R-OK), Kyl, and Bob Smith (R-NH), reportedly raced to Lott's office to tell him that they would block any agreement to postpone the vote. ¹³⁹

On October 13, 1999, the Senate rejected the CTBT by a vote of forty-eight in favor and fifty-one against (the treaty needed sixty-seven votes to pass, or a two-thirds majority, as required for all treaties). Twenty years later, the CTBT still sits in limbo. Although the United States has not tested a nuclear weapon since 1992 and sees no compelling need to, the treaty to ban testing for the rest of the world cannot come into force until the United States ratifies the CTBT. The United States led the world in negotiating the treaty, but could not get its own house in order to approve it. This was a huge setback for American leadership and international credibility, as well as for efforts to reduce nuclear dangers.

If the nation with the most sophisticated nuclear arsenal, that has conducted the most nuclear tests (over 1,000), and

national poll found that seventy-three percent of Americans favored the treaty.).

^{137.} Nuclear Testing and Comprehensive Test Ban Treaty (CTBT) Timeline, Arms Control Ass'n (June 2019), https://www.armscontrol.org/factsheets/Nuclear-Testing-and-Comprehensive-Test-Ban-Treaty-CTBT-Timeline [hereinafter CTBT Timeline].

^{138.} Id.

^{139.} Id.

^{140.} Arms Control Ass'n Press Release, supra note 130.

has the best simulation capabilities, cannot approve the CTBT, why should anyone else? From Russia's point of view, the fact that Washington has not ratified the treaty raises suspicions that the United States may one day resume testing, and therefore Moscow should be ready for such a possibility. The CTBT is a cautionary tale of how political polarization impedes Democrats from attaining treaty approval through the Senate. Unfortunately, conditions for the CTBT only worsened, when in 2019, the Trump Administration accused Russia of violating the treaty. Robert Ashley, Director of the Defense Intelligence Agency, accused Russia of failing to adhere to the testing moratorium "in a manner consistent with the 'zero-yield' standard." The Trump Administration provided no supporting evidence, and Moscow denied the accusation. 142

IX. OBAMA GETS HALF A LOAF

During the 2008 presidential election, it seemed as though the United States was heading toward bipartisan support for deep nuclear arms reductions. Senator John McCain (R-AZ), the GOP nominee, stated that, "The Cold War ended almost twenty years ago, and the time has come to take further measures to reduce dramatically the number of nuclear weapons in the world's arsenals." On April 5, 2009, soon after his inauguration, President Barack Obama delivered his first major foreign policy speech in Prague:

I state clearly and with conviction America's commitment to seek the peace and security of a world without nuclear weapons. I'm not naive. This goal will not be reached quickly—perhaps not in my lifetime. It will take patience and persistence. But now we, too, must ignore the voices who tell us that the world cannot change. We have to insist, 'Yes, we can.'144

^{141.} Cristina Maza, Trump Administration Accusations That Russia Violated Nuclear Treaty Are a 'Cover Up,' Moscow Claims, Newsweek (June 17, 2019), https://www.newsweek.com/russia-trump-u-s-nuclear-treaty-tests-1444352.

^{143.} Transcript of John McCain's University of Denver Speech, N.Y. Times (May 27, 2008), https://www.nytimes.com/2008/05/27/us/politics/27text-mc-cain.html.

^{144.} Fact Sheet: The Prague Nuclear Agenda, The White House (Jan. 11, 2017), https://obamawhitehouse.archives.gov/the-press-office/2017/01/11/fact-sheet-prague-nuclear-agenda.

The speech created great hope in the United States and the international community that progress would be made on disarmament. Obama received the Nobel Peace Prize that October, in part for the commitments he made in Prague, which included: (1) preventing nuclear terrorism and promoting nuclear security; (2) strengthening the nonproliferation regime; (3) supporting the peaceful use of nuclear energy; and (4) reducing the role of nuclear weapons.

The Obama Administration made real progress on many of these issues, such as concluding the New START Treaty with Russia in 2010 and negotiating a comprehensive, long-term deal with Iran to prevent it from obtaining a nuclear weapon. The Administration also organized four successful Nuclear Security Summits that convened more than fifty world leaders to take tangible steps to prevent terrorists from gaining access to nuclear weapons and materials. 146

However, the Administration fell short in many areas. For example, Obama promised to seek Senate ratification of the CTBT, yet never mounted a serious effort to do so. Obama stated that the United States would seek a new treaty to end the production of fissile materials for use in nuclear weapons, but did not follow up. 147 The bruising partisan battle and close vote on the ratification of New START, which should have sailed through ratification, caused Obama to back off from his earlier ambitious program on arms control. After New START, the Administration planned to seek another reduction agreement with Russia, but was thwarted by Moscow, due in part to its concerns about American missile defense plans. Obama chose to expand the ABM system in Alaska and California and

^{145.} See generally Tom Z. Collina, How President Trump Might Radically Rethink U.S. Nuclear Policy, Foreign Pol'y (Nov. 16, 2016, 4:47 PM), https://foreignpolicy.com/2016/11/16/how-president-trump-might-radically-rethink-u-s-nuclear-policy-russia-north-korea-iran-nato/ (providing an overview of the Obama administration's nuclear policy and discussing Trump's potential approach).

^{146.} Fact Sheet: The Nuclear Security Summits: Securing the World from Nuclear Terrorism, The White House (Mar. 29, 2016), https://obamawhitehouse.ar chives.gov/the-press-office/2016/03/29/fact-sheet-nuclear-security-summits-securing-world-nuclear-terrorism.

^{147.} Louis Jacobson, *Despite U.S. Efforts, Treaty Remains Stymied*, Politifact (Nov. 21, 2012), https://www.politifact.com/truth-o-meter/promises/obameter/promise/383/seek-treaty-to-control-fissile-materials/.

to field his own new system on Russia's doorstep in Eastern Europe. 148

In addition to these setbacks, the Obama Administration started an excessive program to rebuild the American nuclear arsenal. However, instead of simply rebuilding what was needed to maintain a strong deterrent against Russia, the Pentagon took over the project and developed a plan to rebuild all parts of the arsenal, as if the Cold War had never ended. Obama promised in Prague that "as long as these weapons exist, the United States will maintain a safe, secure, and effective arsenal to deter any adversary" and in exchange for Republican votes on New START, Obama promised to rebuild and maintain the arsenal. ¹⁴⁹ However, his administration's trilliondollar nuclear plan was too extreme.

Moreover, to pass New START, Obama had also agreed not to limit ABMs. The United States issued a nonbinding unilateral statement explaining that American missile defenses "are not intended to affect the strategic balance with Russia" but that the United States intended "to continue improving and deploying its missile defense systems in order to defend itself against limited attack." The Senate's instrument of ratification repeated its intention "to deploy as soon as is technologically possible an effective National Missile Defense system capable of defending the territory of the United States against limited ballistic missile attack (whether accidental, unauthorized, or deliberate)." The Senate's instrument of ratification repeated its intention "to deploy as soon as is technologically possible an effective National Missile Defense system capable of defending the territory of the United States against limited ballistic missile attack (whether accidental, unauthorized, or deliberate)."

If the trillion-dollar nuclear modernization program is the ultimate price for New START, the treaty will not have been

^{148.} See generally After Long Wait, U.S. to Unveil European Missile Shield, Reuters (May 11, 2016, 7:18 AM), https://www.reuters.com/article/us-nato-shield-timeline/after-long-wait-u-s-to-unveil-european-missile-shield-idUSKCN0Y217P (setting out the chronology of the U.S.'s missile defenses in Europe).

^{149.} Remarks by President Barack Obama In Prague As Delivered, White House, Off. of Press Sec'y (Apr. 5, 2009), https://obamawhitehouse.archives.gov/the-press-office/remarks-president-barack-obama-prague-delivered. And https://obamawhitehouse.archives.gov/the-press-office/2011/02/02/message-president-new-start-treaty-0.

^{150.} New START Treaty Fact Sheet: Unilateral Statements, U.S. Dep't of State (May 13, 2010), https://2009-2017.state.gov/t/avc/rls/141837.htm.

^{151.} S. Treaty Doc. 111-5, 111th Cong. § (c) (1) (a) (i) (Dec. 22, 2010) (enacted), https://www.foreign.senate.gov/imo/media/doc/SFRC%20New%20START%20Resolution%20FINAL.pdf.

worth it. New START, although valuable, made only modest cuts to the nuclear arsenals. By approving the excessive rebuild plans and reinforcing bipartisan support for ineffective ABMs, the United States has locked itself into the production of brand-new and dangerous weapons for the next fifty years. "They agreed to spend whatever it took to keep the ICBMs and the B-52s ready to fly for another full generation," wrote MSNBC host Rachel Maddow in her book, *Drift: The Unmooring of American Military Power.* 152 "Settle in, Missileers, it's gonna be at least another few decades." 153

How did Obama's call for a world without nuclear weapons turn into the rebirth of the bomb? Obama came into office with a clear vision of where he wanted to go on nuclear weapons and had a plan to get there. He used his first foreign policy speech to lay out his nuclear agenda and show the world that the bomb was a high priority. However, Republicans in the Senate made New START a partisan political fight. The treaty barely passed, with seventy-one votes in favor and twentysix votes against. 154 The Obama Administration had to pay a high price to pass New START. Moreover, after New START, the Administration lacked the bandwidth to take on Senate approval of the CTBT. Brent Scowcroft, National Security Advisor under Presidents Ford and George H. W. Bush, told ABC News, "I just don't understand the opposition . . . to play politics with what is in the fundamental national interest is pretty scary stuff."155 After New START, Russia balked at deeper reductions, in part because of Obama's support for ABMs both on the West Coast of the United States and in Europe. 156 Without support in Moscow, the Administration would have had to

^{152.} Rachel Maddow, Drift: The Unmooring of American Military Power 239 (2012).

^{153.} Id.

^{154.} Tom Z. Collina, *Senate Approves New START*, Arms Control Ass'n (Jan. 2, 2011), https://www.armscontrol.org/act/2011_01-02/NewSTART.

^{155.} Id.

^{156.} See generally Andrey Pavlov and Anastasia Malygina, Russian Perspective: New START and Beyond, Arms Control Ass'n: Arms Control Today (Jan./Feb. 2020), https://www.armscontrol.org/act/2020-01/features/russian-perspective-new-start-beyond (describing Russian concerns about U.S. missile defense systems).

make one-sided reductions, which Obama was unwilling to do, particularly after Russia's 2014 annexation of Crimea. 157

The New START experience pointed to a larger problem: Democratic presidents tend to support arms control, but cannot gain the necessary support in the Senate. Conversely, Republican presidents, who have a long history of supporting arms control, have (at least for now) turned against it. As a result, unless there is a change in partisan behavior on nuclear issues, there may not be a way to pass future arms control treaties through the Senate.

Some of Obama's problems were self-inflicted. While the President was looking elsewhere, it was his own bureaucracy that let the nuclear rebuild balloon into a trillion-dollar behemoth. It was his own team that pushed ABM expansion. Left to itself, the Pentagon—and the Air Force, in particular—chose to build a modern version of the Cold War nuclear arsenal, rather than think through which weapons were really necessary.

In the summer of 2010, following the first Nuclear Security Summit, New START, the Prague speech, and the Nuclear Posture Review (NPR), Obama's Chief of Staff Rahm Emanuel pulled the President aside and told him that he was spending too much time on nuclear policy: "You said you wanted to run for president to pass healthcare. And we're in the fight of our lives," Emanuel said to the President, as told to Jon Wolfsthal, "You can't spend as much time on nukes if you want to do this." Wolfsthal indicated that once Obama heard this, the Administration spent less time on nuclear policy and devoted more time to passing healthcare. 160

There were others still working on nuclear policy when Wolfsthal, who started as an advisor to Vice President Joe Biden and later became Obama's Senior Nuclear Policy Advisor, left the government in April 2012. However, there was no single person whose primary job was achieving the nuclear

160. Id.

^{157.} Steven Pifer, *Crimea: Six years after illegal annexation*, Brookings (Mar. 17, 2020), https://www.brookings.edu/blog/order-from-chaos/2020/03/17/crimea-six-years-after-illegal-annexation/.

^{158.} Tom Z. Collina, *Phasing Out*, Foreign Pol'y (Mar. 14, 2013), *https://*foreignpolicy.com/2013/03/14/phasing-out/.

^{159.} Interview with Jon Wolfsthal, Senior Nuclear Policy Advisor to President Obama (May 3, 2019) [hereinafter Wolfsthal interview].

agenda laid out in the Prague speech. Meanwhile, the Iran nuclear deal negotiations took up significant time and were not completed until 2015.

While Obama focused elsewhere, the nuclear agenda drifted. Obama's Deputy National Security Advisor, Ben Rhodes, remarked that at a certain point, the Administration lost control:

We did not intend to set this snowball rolling down the mountain in 2009. We intended to do something that seemed to us to be a responsible way . . . to have a safe infrastructure around our nuclear weapons and get New START ratification done. But what ended up happening . . . is it did become this giant snowball. And it is insane and unnecessary and wasteful and an offensive use of prioritization that we would be spending this amount of money to modernize nuclear weapons when we have threats from climate change and much more pressing threats. ¹⁶¹

Furthermore, when Obama tried to change nuclear policy, he encountered a built-in body of opposition in the military who supported nuclear weapons. Wolfsthal admitted that this was a fair criticism of Obama:

On almost every occasion, when it came to the Prague agenda on reductions of nuclear weapons, on changing nuclear doctrine, he chose not to take the most ambitious, most radical step because he wanted to preserve his leverage and his relationships and his capital with other parts of his administration for other issues. . . . Maybe it was Iran, drawdowns in Afghanistan, maybe it was other pieces, but he had things teed up and chose actively not to take those steps. And that I think is a recurring theme for the President; that these things were available to him and, time and again, his moderation led to maintaining the status quo. ¹⁶²

^{161.} Press the Button, EP10: Ben Rhodes, Former Deputy National Security Advisor, Joins Joe Cirincione in Conversation, Ploughshares Fund (June 17, 2019), https://pressthebutton.libsyn.com/ben-rhodes-former-deputy-national-security-advisor-and-current-pod-save-the-world-co-host-joins-joe-cirincione-fora-special-in-depth-conversation.

^{162.} *Id*.

Obama, like Truman, began with good intentions and wound up in a very different place. If left to itself, the nuclear bureaucracy—Pentagon planners, defense contractors, congressional champions, and think tank boosters—will keep the contracts and money moving. Wolfsthal also noted that altering the status quo requires effort, as "There's not a built-in constituency that's going to applaud you for it, and you have entrenched interests that believe you're wrong." 163

In an interview with Joe Cirincione, ¹⁶⁴ Leah Greenberg ¹⁶⁵ stated that one of the hard lessons from the Obama years was that many of Obama's supporters thought that the job was done when the election ended, while those who were opposed to Obama's ideas, including on nuclear weapons, mobilized. Today, Greenberg said that the president must think about how to build a coalition that will still be around to push for reforms after a new president takes office. ¹⁶⁶

X. TRUMP TURNS BACK THE CLOCK

President Donald Trump showed just how much damage could be done by an administration opposed to arms control, combined with a disengaged public. Trump withdrew from the Obama Administration's Iran nuclear deal, despite the fact that it was working well and Iran was in full compliance. Trump also withdrew from the 1987 INF Treaty, even though attempting to get Russia back into compliance would have been a smarter strategy. Trump also failed to extend the

^{163.} *Id*.

^{164.} Joe Cirincione is the President of the Ploughshares Fund.

^{165.} Leah Greenberg is the co-founder of the mass movement organization "Indivisible" and was named one of of *TIME Magazine*'s 100 most influential people in 2019.

^{166.} Greenberg stated, "Because what Democrats really were missing in 2009 was an amped-up grassroots that was really having their back as they were debating these big policies that they were trying to move." *Leah Greenberg, Indivisible co-founder and one of Time Magazine's 100 most influential people of 2019 in discussion with Joe Cirincione, Ploughshares Fund (Apr. 29, 2019), https://soundcloud.com/user-954653529/leah-greenberg-indivisible-co-founder-one-of-times-100-most-influential-people-of-2019.*

^{167.} Mark Landler, *Trump Abandons Iran Nuclear Deal He Long Scorned*, N.Y. Times (May 8, 2018), https://www.nytimes.com/2018/05/08/world/middleeast/trump-iran-nuclear-deal.html.

^{168.} Amy F. Woolf, U.S. Withdrawal from the INF Treaty: What's Next?, Cong. Rsch. Serv. (Jan. 2, 2020), https://fas.org/sgp/crs/nuke/IF11051.pdf.

New START Treaty with Russia, proving the point that to Trump, nuclear security had become just one more way to score points with his base and beat up on Democrats.¹⁶⁹

A report indicated that, in a January 2017 phone call with Russian president Vladimir Putin, President Trump did not know what New START was, but denounced it as a bad Obama Administration deal.¹⁷⁰ Asked about the report, then White House Spokesperson, Sean Spicer, first avoided the question, and then later denied that Trump was ignorant of the treaty.¹⁷¹ Then-National Security Advisor, John Bolton, confirmed suspicions that the treaty would not be renewed when he stated in July 2019 that New START was unlikely to be extended. "Why extend a flawed system just to say you have a treaty? We need to focus on something better. And we will." ¹⁷²

President Trump could have easily secured a "clean" extension of New START for five years, as this was the approach that Russia supported and the Biden Administration eventually secured.¹⁷³ Instead, Trump directed his administration to seek a new arms control agreement with Russia and China that would include "all the weapons, all the warheads, and all the missiles."¹⁷⁴ China rejected engaging in these proposed talks, on the reasonable grounds that its arsenal was significantly smaller than those of the United States and Russia.¹⁷⁵

^{169.} Brittney Washington, Why 'New START' Nuclear Treaty Split Biden From Trump, Bloomberg (Jan. 28, 2021), https://www.bloomberg.com/news/articles/2021-01-28/why-new-start-nuclear-treaty-split-biden-from-trump-quicktake.

^{170.} Jonathan Landay & David Rhode, Exclusive: In Call with Putin, Trump Denounced Obama-era Nuclear Arms Treaty, Reuters (Feb. 9, 2017), https://www.reuters.com/article/us-usa-trump-putin-idUSKBN15O2A5.

^{171.} Euan McKirdy, *White House: Trump Knows What START Treaty Is*, CNN (Feb. 10, 2017), https://www.cnn.com/2017/02/10/politics/trump-putin-start-treaty.

^{172.} Young America's Foundation, *The Honorable John Bolton LIVE from YAF's 41st NCSC*, YouTube (July 30, 2019), https://www.youtube.com/watch?v=MHOwCV4xFg8.

^{173.} David M. Herszenhorn, *Putin and Biden Confirm Extension of New START Treaty*, Politico (Jan. 27, 2021, 1:17 PM), https://www.politico.eu/article/putin-and-biden-confirm-extension-of-new-start-treaty/.

^{174.} Daryl Kimball, "New START Must Be Extended, with or without China," Nat'l Interest (May 27, 2019), https://nationalinterest.org/feature/new-start-must-be-extended-or-without-china-59227.

^{175.} See Hans M. Kristensen & Matt Korda, Status of World Nuclear Forces, Fed'n Am. Scientists (Sept. 2020), https://fas.org/issues/nuclear-weapons/

Abandoning New START would have been a tragic error that accelerated the arms race. New START has served the United States well, and there are no indications of Russian violations. ¹⁷⁶ It deserved to be renewed, as it limits the number of nuclear weapons that Russia can aim at the United States, and it gives Washington confidence that Moscow will not expand its arsenal. ¹⁷⁷ Without New START, those assurances disappear. New START is also the vehicle for the last remaining dialogue between the United States and Russia on nuclear weapons. Indeed, one of the most important reasons for strategic arms treaties is to maintain a continuing dialogue. Yet, President Trump almost killed New START. If he had, it would have been the first time since 1972 that there were no limits on American or Russian nuclear arsenals.

XI. BIDEN KEEPS HOPE ALIVE

The Biden Administration announced a five-year extension of New START on February 3, 2021, just two weeks after taking office and two days before the agreement would have expired. Secretary of State Antony J. Blinken said in a statement that "The United States will use the time provided by a five-year extension of the New START Treaty to pursue with the Russian Federation, in consultation with Congress and U.S. allies and partners, arms control that addresses all of its nuclear weapons." ¹⁷⁸

Blinken's reference to "all of its nuclear weapons" means that the Biden Administration may seek an agreement that covers strategic (long-range) nuclear weapons as well as tactical (shorter-range) weapons. This would be new territory for the START process, which up until now, has only placed limits on strategic weapons. So far, Russia has been resistant towards

status-world-nuclear-forces/ (describing the sizes of the nuclear powers' respective stockpiles).

^{176.} Kingston Reif, Responses to Common Criticisms About Extending New START, Arms Control Ass'n (Feb. 5, 2020) https://www.armscontrol.org/issue-briefs/2020-02/responses-common-criticisms-about-extending-new-start.

^{177.} Id

^{178.} Press Release, U.S. Dep't of State, Off. of the Spokesperson, On the Extension of the New START Treaty with the Russian Federation (Feb. 3, 2021), https://www.state.gov/on-the-extension-of-the-new-start-treaty-with-the-russian-federation/.

placing limits on its tactical weapons. For the United States to change Russia's mind it will have to offer something in return, such as limitations on ABMs.¹⁷⁹

Additionally, the Biden Administration has announced its intention to re-enter the 2015 nuclear deal with Iran, from which the Trump Administration withdrew in 2018. It is also expected to conduct a full review of American nuclear policy, which may include a pledge that the "sole purpose" of nuclear weapons is to deter their use by others. There is also a debate regarding whether the Administration will build a new nuclear-armed ICBM, expected to cost \$264 billion over its service life. 180

It is too soon to know the final outcome of these efforts, but they all indicate a Biden Administration that wants to rebuild arms control in the wake of the Trump Administration. Like previous efforts, President Biden's success will likely depend on how much political capital he can spend on these issues, and how much public pressure can be brought to bear to demand progress.

XII. CONCLUSION: THE BOMB IS A SURVIVOR

Why do we still have the bomb? Because, after seventy-five years, the bomb is the deeply embedded default setting. Changing the setting takes leadership from the very top, and it takes focused, sustained attention over many years. Given the lack of public pressure demanding attention to nuclear issues and the vast array of other prominent issues, it is no wonder that the bomb is alive and well.

The bomb is a survivor, and it thrives in the shadows. Uprooting the bomb and related missile defenses will take sustained effort by a committed president. Without public demands on the president, it is unlikely to happen. Now that President Biden is in the White House with a pro-arms control agenda, we must remember that without strong public support, the President's attention will be diverted. It is not

^{179.} Stephen Pifer, Should U.S. Missile Defenses Be a Part of Arms Control Negotiations With Russia?, The Nat'l Interest (Jan. 26, 2021), https://nationalinterest.org.

^{180.} Anthony Capaccio, *New U.S. ICBMs Could Cost Up To \$264 Billion Over Decades*, Bloomberg (Oct. 3, 2020), https://www.bloomberg.com/news/articles/2020-10-03/new-u-s-icbms-could-cost-up-to-264-billion-over-decades.

enough for a president to want to do the right thing. The public must demand it. As President Abraham Lincoln once said, "In this age, in this country, public sentiment is everything. With it, nothing can fail; against it, nothing can succeed." ¹⁸¹

^{181.} Abraham Lincoln, Debate with Stephen Douglas (1858), https://www.bartleby.com/268/9/23.html.