There is an immense gulf between the atomic\textsuperscript{1} and the hydrogen\textsuperscript{2} bomb. The atomic bomb, with all its terrors, did not carry us outside the scope of human control or manageable events in thought or action, in peace or war. But [with] the hydrogen bomb, the entire foundation of human affairs was revolutionized, and mankind placed in a situation both measureless and laden with doom. There is no absolute defence against the hydrogen bomb, nor is any method in sight by which any nation, or any country, can be completely guaranteed against the devastating injury which even a score of them might inflict on wide regions. . . . Moreover, a curious paradox has emerged. Let me put it simply. After a certain point has been passed it may be said, ‘The worse things get, the better.’ The broad effect of the latest developments is to spread almost indefinitely and at least to a vast extent the area of mortal danger. . . . Then it may well be that we shall by a process of sublime irony have reached a stage in this story where safety will be the sturdy child of terror, and survival the twin brother of annihilation. . . . All deterrents will improve and gain authority during the next ten years. By that time, the deterrent may well reach its acme and reap its final reward. The day may dawn when fair play, love for one’s fellow-men, respect for justice and freedom, will enable tormented generations to march forth serene and triumphant from the hideous epoch in which we have to dwell. Meanwhile, never flinch, never weary, never despair. – Winston S. Churchill, 1955\textsuperscript{3}

\begin{footnotesize}
\footnote{B.A., Ph.D., J.D., Yale University; Member, New York and District of Columbia Bars. University Professor, the National Defense University; Senior Research Scholar, Yale Law School. The views expressed are my own and do not necessarily reflect the views of the U.S. Government or any part thereof. Christopher D. Bair, Class of 2016, The George Washington University Law School, provided support, advice, and encouragement in the preparation of this article for publication, assistance for which I am deeply grateful.}


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I. INTRODUCTION

The “nuclear age” is a time of multiple paradoxes. Nuclear weapons were born from the age-old paradox of science: simultaneous creativity, and destructiveness depending on ultimate use. The law tries to keep up with applied science to keep at bay the horrors resulting from advanced military technology and, more often than not, fails to keep pace. The use of nuclear weapons in 1945 highlighted this tension between law and lethal scientific invention: just as the United States was preparing to drop atomic bombs on Japan, it also, with another lobe of its brain, participated in the launching of history’s most important development in international order, the United Nations. Ironically, between the bombings of Hiroshima on August 6 and Nagasaki on August 9, the United States ratified the UN Charter on August 8. These acts highlight yet another paradox of the nuclear age: as nuclear weapons technology developed, as the destructive yields of nuclear weapons grew to fearful levels, and as the world seemed ever on the brink of catastrophic nuclear war, an extraordinary growth in the quantity of international law and the range of subjects covered took place. Since the end of the Cold War, there has been a marked (but not universal) growth in international cooperation and effective international law. These developments have not put the nuclear genie back in its lamp. While no one reasonably can deny what nuclear weapons can do against humanity and the earth it inhabits, some argue that nuclear weapons have had a moderating influence on the behavior of nuclear-weapons states because of the dangers of nuclear war.


6 Few would disagree with the International Court of Justice that “The destructive power of nuclear weapons cannot be contained by either space or time. They have the potential to destroy all civilization and the entire ecosystem of the planet.” Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, [1996] I.C.J. Rep., at 226, 243 para. 35. (the “Nuclear Weapons Opinion”). See also W. S. Carus, Nuclear Optimists as Proliferation Pessimists: Why U.S. Policy-Makers Who Love the Bomb Don’t Think “More is Better” (2013) (“Nuclear Optimists”); “The New Nuclear Age,” The Economist, Mar. 7, 2015.. The UN Security Council adopted 660 resolutions in the first 45 years of its existence (to Aug. 1, 1990). In the 25 years since then, the Security Council has adopted 1,540 resolutions (as of Jan. 29, 2015). That number is a sign of significantly improved international cooperation on a host of issues.
All these developments and more — perhaps in the most arresting paradox of all — occurred notwithstanding the fact that the UN Charter was, as Secretary of State John Foster Dulles said in 1953, “preatomic age.”

obsole“preatomic age.” obso”ce before it actually came into force. As one who was at San Francisco, I can say with confidence that if the delegates there had known that the mysterious and immeasurable power of the atom would be available as a means of mass destruction, the provisions of the Charter dealing with disarmament and the regulation of armaments would have been more emphatic and realistic.\*

Yet, despite Dulles’ conviction that the UN Charter was obsolete the day it was finished, it still serves as the codification of the most important legal norms of international relations — the “sovereign equality” of States,\* the prohibition on “the threat or use of force against the territorial integrity or political independence of any State,”\* and the affirmation of “the inherent right of individual or collective self-defence if an armed attack occurs”\* — and the constitution of the sole global international organization. While one could imagine an improved organization,\* it is difficult to conceive of improved norms for a world still organized as independent, sovereign States.\* If States could agree on what Articles 2 and 51 of the UN Charter mean and scrupulously fulfilled their obligations under them, the world would be more peaceful, and the fear of nuclear weapons would recede. But the world is not always a rational place, and the nuclear paradoxes will persist. The question then becomes how humanity can live with them?

Nuclear weapons came into existence without legal obstacles and as the UN Charter was being drafted. Since then, States have had to manage nuclear realities without clear guidance.\* Do these facts mean that the weapons are

\* U.N. Charter art. 2, para. 1.
\* U.N. Charter art. 2, para. 4.
\* U.N. Charter art. 51.
\* “Had I been present at the creation I would have given some useful hints for the better ordering of the universe.”—Alphonso X, the Learned, 1252-84, King of Spain. D. Acheson, Present at the Creation: My Years in the State Department epigraph (1969).
\* See, e.g., supra note 2, Freedman, Evolution, 196-211; supra note 1, Walker, Perpetual Menace, 12; C. Bell, The Conventions of Crisis: A Study of Diplomatic Management
beyond the law, indeed, perhaps anti-law? Whatever one’s preferred answer to the question, one can but agree with Judge Stephen Schwebel’s insight that any consideration of the legality of nuclear weapons means that one must confront and address “a titanic tension between State practice and legal principle.” This article focuses on the Schwebel tension. It examines the relationship between nuclear weapons and international law and order considered from a wide optic. Topics involving operational issues, the relationship between nuclear weapons and the laws of war, the impact of the 1996 Advisory Opinion of the International Court of Justice, and the implications of efforts to develop new, highly accurate nuclear weapons of concentrated and controllable power figure among the subjects examined here. The conclusion is that nuclear weapons will remain part of the fabric of international life for the foreseeable future. If we are to continue to enjoy nuclear peace, governments will have to exert continuous effort to that end and make sure that everyone understands and agrees that nuclear weapons are not to be used in war. No outside or impersonal force, including international law, will remove nuclear weapons from the scene.

II. THE NUCLEAR WEAPON AND WORLD PUBLIC ORDER

For many years, nuclear weapons have been so numerous, so powerful, and so dangerous as necessarily to have transformed conceptions and definitions of international relations, peace, law, strategy, and grand strategy. As

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Raymond Aron wrote fifty years ago, “[t]he free choice between war and peace, [the] essence of sovereignty in the traditional sense of the word, no longer has the same meaning now that the choice of war implies or could imply the annihilation of the nation itself.”\(^{18}\) The impact of nuclear weapons is felt across international relations. The result has created unique challenges for heads of state and government, diplomats, soldiers, strategists, and lawyers.

A. Danger and Power of Nuclear Weapons

In their most powerful versions,\(^{19}\) nuclear weapons surpass all other weapons in terms of quantity and longevity of destructiveness per unit.\(^{20}\) In addition to the Hiroshima and Nagasaki examples of the consequences of exploding what we now consider to be low-yield\(^{21}\) bombs, atmospheric tests of thermonuclear devices\(^{22}\) prior to the Limited Test-Ban Treaty (1963), as well as radiation leaked from nuclear power plants at Three Mile Island (1979), Chernobyl (1986), and Fukushima (2011) suggest that the use of even small numbers of nuclear weapons would cause devastation far in excess of most wars. One might even venture to conclude that their impact might equal the aggregate of all previous wars, particularly in terms of longevity of effect.

In reality, as in the popular imagination, nuclear weapons can annihilate cities, and nuclear fallout can render them uninhabitable for decades and perhaps centuries. Nuclear weapons can destroy bunkers protecting other weapons with predictably widespread and long-lasting lethal effects. Not even chemical and biological weapons, with which nuclear weapons are linked in discussions about “weapons of mass

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\(^{18}\) See supra note 13, Aron, Great Debate, 264.
\(^{19}\) See supra note 2, Freedman, Evolution, 13-15.
\(^{20}\) P. Bracken, The Second Nuclear Age, 36 (2012) (“Second Nuclear Age”) (“the bomb’s spread could produce biblical levels of destruction”).
\(^{21}\) “Yield” is “[t]he total amount of energy released by a nuclear explosion, generally measured in equivalent tons of trinitrotoluene (TNT). A kiloton is equivalent to 1,000 tons of TNT; a megaton is equivalent to one million tons of TNT.” Nuclear Threat Initiative Glossary, online: [http://www.nti.org/glossary](http://www.nti.org/glossary). The Hiroshima and Nagasaki bombs’ yields were less than 20 kilotons each.
destruction” (“WMD”), achieve that degree of destructive power. The electromagnetic pulse emitted by a megaton nuclear weapon exploded above the earth’s atmosphere over the United States would disable the electrical grid and wreak computer chips and other essentials of contemporary life. After such an explosion, conditions would more closely resemble Europe’s Dark or Middle Ages than the twenty-first century.

Even nuclear weapons designed for battlefield use, that is, those designated “tactical” rather than “strategic”—artillery shells, short range rockets, deep penetration weapons, enhanced radiation weapons, for example—and used in a military theatre would endanger far more than troop concentrations, local vegetation, and habitability. They likely would interfere with all command, control, communications, and intelligence systems. Unable to tell whether they are under strategic or tactical nuclear attacks, governments might feel compelled to respond with strategic weapons. Even if one might envision a limited nuclear conflict or the use of small-yield nuclear weapons designed for specific, limited military targets, such a conflict easily could escape the script’s confines. No one could be certain that such battlefield use would not lead to nuclear exchanges involving much more powerful weapons. No one could be sure that a nuclear weapon used by another State, even an ally or friend, might not bring the great powers to blows as they attempted to see through the fog of war, especially the nuclear fog, to protect their interests. Collateral effects, such as those produced by electromagnetic pulses, would increase the impact of an explosion of a nuclear weapon beyond any specific target. It therefore is difficult to avoid the conclusion that any use of nuclear weapons threatens such widespread destruction and long-term devastation as perhaps to threaten life on the planet as we know it.

B. Impact of Nuclear Weapons on World Public Order

The destructive power of nuclear weapons redefined global peace as the absence of nuclear war. During the Cold War, keeping the nuclear peace was

25 Ibid.
26 See supra note 2, Freedman, Evolution, 62-68; see supra note 2, Kissinger, Nuclear Weapons, 1.
27 H. Kissinger, Diplomacy 609 (1994) (multiple triggers); supra note 13, Aron, Great Debate, 61 (on Kissinger’s change of mind regarding the value of tactical nuclear weapons).
a paramount concern of the United States. But even the pursuit of that goal involved paradoxes such as engaging in a global struggle with the Soviet Union while simultaneously concluding nuclear arms control agreements. Despite relative American strength after World War II, the United States believed it still had to worry about maintaining the hard-won peace of 1945 and, therefore, actively engaged in rebuilding a friendly international system. The United States was so much richer and more advanced militarily and economically than other States during this period that it should not have felt threatened, but it did. Indeed, the U.S. officials who guided the United States in the Korean and Vietnam Wars feared that, if those wars had not been fought, the risk of nuclear war would have increased. The lesson of the crises of the 1930s, especially the 1938 Czechoslovakian crisis and the Munich agreement, seemed obvious and was seared into the minds of officials who had lived through the 1930s and World War II: resist aggression wherever it occurs.

Some critics of U.S. policy, of course, saw imperialism at work behind the high rhetoric of maintaining international peace. Others saw ignorance and abuse of history fashioning and implementing specious lessons. These points of view do not give enough credit to the nuclear reality as seen from

28 President Truman summed up the theme of his first volume of memoirs as follows: “I believe as I said on January 15, 1953, in my last address to the American people before leaving the White House: ‘We have averted World War III up to now, and we may have already succeeded in establishing conditions which can keep that war from happening as far ahead as man can see.’” H. Truman, Memoirs, vol. 1: Year of Decisions, xi (1955).

29 Supra note 27, Kissinger, Diplomacy, 602; supra note 13, Aron, Great Debate, 147-49.

30 J. Gaddis, The Cold War: A New History, 416 (2005). Supra note 17, Carroll, House of War, 416. Carroll concludes that Reagan “and all the others like him been simply wrong. Wrong from the Long Telegram and the ‘X’ article [both by George F. Kennan] forward. Wrong on the Truman Doctrine, NSC-68, and the Gaither Report [demanding an urgent military build-up]. Wrong when Stalin died. Wrong on Vietnam. Wrong on Nicaragua. Wrong on almost every assessment of Soviet intentions and capabilities across fifty years. Wrong, most fundamentally, about those human beings on the far side of the iron divide.” Carroll goes too far as John Lewis Gaddis so expertly shows. See also supra note 13, Aron, Great Debate, 11-29. Supra note 17, Friedberg, Shadow. On the last day of the Johnson Administration in 1969, Secretary of State Dean Rusk remarked as he left his office, “Well, no nuclear wars on my watch.” Reported to the author at that time by the then Under Secretary of State for Political Affairs.

31 Henry Kissinger described the lesson as “failure to resist aggression —wherever and however it occurred—guarantees that it will have to be resisted under much worse circumstances later on.” Supra note 27, Kissinger, Diplomacy, 623.

32 For a summary of the principal 1960s critics of U.S. foreign policy in the Cold War, see, e.g., E. Rostow, Peace in the Balance (1972).

33 See, e.g., R. Neustadt & E. May, Thinking In Time: the Uses of History for Decision-Makers, 41, 89 (1986); S. Hoffmann, Gulliver’s Troubles Or the Setting of American Foreign Policy (1968).
the seats of power.Officials confront the inescapable fact that nuclear weapons exist and are part of the fabric of international politics, relations, and power. Though their use in war likely would be catastrophic, the mere existence of such weapons may strengthen that fabric: nuclear weapons per se exert pressure, or should exert pressure, on governments to avoid their use in war.

While one State may profess a wish never to use nuclear weapons or never to use them first, they find their way into diplomatic exchanges even or perhaps especially where the object is to circumscribe or end potential conflict. Despite moving away from a doctrine of massive nuclear retaliation in the Eisenhower Administration to gradual response to aggression in the Kennedy Administration, throughout the Cold War the United States insisted that it would use nuclear weapons if necessary in order to stop a Soviet invasion of Western Europe. Nuclear weapons appeared to be a less expensive alternative to keeping a massive land army in Europe. Did the Soviet government believe the U.S. nuclear threat? Did the Soviet government agree with de Gaulle that, at a moment of crisis, an American President might not launch nuclear weapons, putting New York and Washington at risk because of a Soviet attack on, for example, Paris? Whether it did or not Moscow acted on the assumption that any East-West war in Europe would be a total war, involving nuclear weapons. The United States and the Soviet Union had to learn to manage their relationship so as not to launch such a war.

The learning process took a good part of the Cold War. President Eisenhower apparently threatened to use nuclear weapons in order to secure a negotiated end to the Korean War. The Soviet Union threatened their use in 1956 in connection with the Suez crisis even though it probably lacked the capability to make good on the threat. Over time during the Cold War,

35 See, inter alia, G. Herken, Counsels of War, 303-44 (1985) on changing views of nuclear danger, nuclear war, and, citing Clausewitz, “de quoi s’agit-il?”; supra note 26, Kissinger, Nuclear Weapons, ch. 3.
37 Supra note 22, Thomas, Ike’s Bluff, 23.
39 Supra note 3, Bundy, Danger and Survival, 476-78.
40 See supra note 13.
41 See supra note 22, Thomas, Ike’s Bluff, 69-81.
42 See supra note 20, Bracken, Second Nuclear Age, 20,100-01.
nuclear threats became less palatable, and keeping as many non-nuclear options available to American leaders became a theme of U.S. diplomacy and defense policy. This trend infused the last decades of the Cold War, in the course of which the United States and the Soviet Union developed techniques of crisis management in order to minimize the risk that the use of nuclear weapons for political purposes would become a use in actual battle. Both governments seemed to accept that, although they were engaged in a brutal tug of war that included threats to use nuclear weapons, nothing in fact was worth the grotesque costs of nuclear war.

The U.S. nuclear arsenal, of course, did not deter North Korea or North Vietnam. Nor did the Soviet nuclear arsenal deter the Afghan mujahedeen after 1979. Nuclear weapons nevertheless seemed to increase the stakes of any crisis and the balance of risks in favor of aggression if one did not resist early and firmly. Hence, the efforts to keep the wars in Korea and Vietnam within tolerable boundaries. A contemporary example, perhaps, is Vladimir Putin’s coups de main in Crimea and Ukraine. Would Putin have had such an easy time had Russia not possessed nuclear weapons? It would appear that North Korea believes or likes to believe or to say that it believes that its nuclear weapons are more of a deterrent of the United States and South Korea than thousands of artillery pieces pointed at nearby Seoul. Tehran may have similar aspirations of deterrence with nuclear weapons preventing direct attacks on Iran while providing an umbrella protecting its support for violence against Israel and others.

The first nuclear weapons states seem to have assumed that the world could trust them not to be irresponsible with their nuclear arsenals. Arguments that

43 See supra note 13, Bell, Conventions of Crisis; supra note 2, Freedman, Evolution; Kissinger, Nuclear Weapons.
44 H. Kissinger, Years of Upheaval, 594 (1982); supra note 20, Bracken, Second Nuclear Age, 33-58.
46 The recent nuclear discussions between Iran and France, Germany, Russia, the United Kingdom, and the United States, and the apparent accord on a framework for an agreement, suggests a change in Iran’s nuclear aspirations. In the past, such hopes have proved unfounded. It remains to be seen whether the 2015 negotiations have a different fate. Former Secretaries of State Kissinger and Shultz and Ambassadors Dennis Ross and Aaron Miller have analyzed the principal issues. See H. Kissinger & G. Shultz, “The Iran Deal and Its Consequences,” Wall St. J., Apr. 8, 2015, A13; Dennis Ross, “How to Save the Iran Deal,” Politico Magazine, Apr. 2015, available online: http://www.politico.com/magazine/story/2015/04/iran-deal-117126.html?utm_medium=sm&utm_source=polito-social&utm_campaign=article-A43871; Aaron David Miller, “How Iran Outfoxes the U.S.,” CNN, Apr. 22, 2015, available online: http://edition.cnn.com/2015/04/21/opinions/miller-iran-chess-game/.
nuclear weapons have a stabilizing influence on foreign policy — seeing them as a kind of handcuff that limits the rational options of all nuclear weapons States — do not appeal to policymakers who fear the irrational.\textsuperscript{47} North Korea and Iran highlight this point.

North Korea’s nuclear capability, however defensive the North Koreans claim it is, adds to the military capabilities of a State that already takes every opportunity to attack or intimidate its neighbors, particularly South Korea, Japan, and their ally, the United States.\textsuperscript{48} North Korea’s principal ally, China, supplies food and protects North Korea diplomatically. It also apparently would like to see North Korea denuclearize and moderate its behavior. China, however, eschews the kind of overt public pressure exerted by the United States. Does that fact mean that Beijing does not mind if North Korea needles the United States and its allies short of starting a war, nuclear or otherwise?\textsuperscript{49}

Iran presents a different strategic and legal challenge. Iran is much richer and stronger than North Korea. It occupies, not only immensely important sources of oil, but also strategically significant real estate from Turkey, Turkmenistan, and Iraq to Afghanistan, Pakistan, and the Persian Gulf and Strait of Hormuz. Iran is a leader in the Islamic world, especially, of course, among Shia moslems, and a leader of anti-American, anti-Israel, and anti-western feeling. Iran has not hesitated to translate this position into acts of violence, usually, but not always, using surrogates.\textsuperscript{50}

Iran poses different challenges to Israel and the United States. Iran’s most senior leader, Ayatollah Khamenei, repeatedly has predicted and called for the annihilation of Israel.\textsuperscript{51} These statements — it is difficult not to call them “threats” — constitute violations of the UN Charter prohibition on the\textsuperscript{52}
threat of the use of force against the territorial integrity or political independence of any State.\textsuperscript{52} Iran also supplies – “uses” may not be too strong a characterization -- its ally Hezbollah to attack Israel.\textsuperscript{53} From an Israeli perspective the situation recalls the “bloodcurdling” language used by President Nasser Egypt in the run-up to the June 1967 War, which language, together with troop movements and unified inter-state command, made Israel believe it had no reasonable alternative other than to use force in self-defense.\textsuperscript{54} From Israel’s point of view, Iran’s nuclear program conveys a threat quite different, for example, than France’s or Britain’s or Russia’s or China’s or India’s or Pakistan’s. An Iranian nuclear weapon would violate the Nuclear Non-Proliferation Treaty. Possession alone would not constitute an armed attack against Israel or any other State justifying a military, defensive response. The context may do so.\textsuperscript{55} So far, Israel and Iran and the United States and Iran have escaped direct conflict. Can they continue to do so if Iran obtains nuclear weapons? That is a question for governments and their lawyers.

If Iran were to become a nuclear weapons State, the United States would have to face two new realities. First, Iran, an immensely important State, will have nuclear weapons, which almost certainly would stimulate reconsideration of non-nuclear postures by Saudi Arabia, Egypt, and other States concerned about the growth of Iranian power. Second, the United States would have to face the consequences of Iran obtaining nuclear weapons in face of statements by President Obama and Secretary of State Kerry that the United States would not allow Iran to obtain nuclear weapons.\textsuperscript{56} Iran’s nuclear weapons most likely would raise questions about the viability of a U.S. guarantee to non-nuclear weapons states, threatening a substantial increase in the number of nuclear weapons States just as the United States has proclaimed its ongoing goal of ridding the world of nuclear

\textsuperscript{52} UN Charter Art. 2, para. 4.
weapons. Such a result would constitute another paradox of the nuclear age.

Iranian or North Korean possession of nuclear or other weapons of mass destruction does not mean that effective deterrence or non-nuclear military resistance in self-defense is impossible. For example, the United States apparently deterred Iraq from using weapons of mass destruction in 1991. On January 9, 1991, Secretary of State James A. Baker III and Iraq’s Foreign Minister Tariq Aziz discussed how a war in response to Iraq’s invasion and purported annexation of Kuwait the previous August should not unfold if it could not be prevented:

[Baker:] I then made a point ‘on the dark side of the issue’ that Colin Powell [then Chairman of the Joint Chiefs of Staff] had specifically asked me to deliver in the plainest possible terms. ‘If the conflict involves your use of chemical or biological weapons against our forces’, I warned, ‘the American people will demand vengeance. We have the means to exact it. With regard to this part of my presentation, that is not a threat, it is a promise. If there is any use of weapons like that, our objective won’t just be the liberation of Kuwait, but the elimination of the current Iraqi regime, and anyone responsible for using those weapons would be held responsible.’ . . .

On March 20, 1996, Ambassador Rolf Ekeus, head of the UN Iraq monitoring office, the UN Special Commission (UNSCOM), told a congressional hearing that Tariq Aziz did not imply that Baker mentioned what type of reaction. But he told me that the Iraqi side took it for granted that it meant the use of maybe nuclear weapons against Baghdad or something like that. And that threat was decisive for them not to use the weapons.

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59 Ambassador Rolf Ekeus in testimony before the U.S. Senate, Committee on Governmental Affairs, Permanent Subcommittee on Investigations, Hearings on the Global Proliferation of Weapons of Mass Destruction (1996). Quoted in ibid. at 105. Ekeus continued: “But this is the story he, Aziz tells. I think one should be very careful
The substantive issue was whether Iraq would comply with UN Security Council resolutions requiring the withdrawal of Iraqi forces from Kuwait. In November 1990, the Security Council had authorized UN Member States to use “all necessary means,” thus including force, to compel Iraqi compliance with its resolutions and “restore international peace and security in the area.” 60 Few people probably thought that Baker’s warning was even necessary. The Cold War had ended. U.S. military superiority was evident to everyone with eyes to see. Yet, a warning that the United States was prepared to topple the Iraqi regime and perhaps more if Iraq used chemical or biological weapons in any forthcoming conflict apparently was made. In 1991 (or 2003) Iraq did not use the weapons of mass destruction it possessed (if it possessed any in 2003).

The warning suggests that possessing or even using small numbers of weapons of mass destruction would not deter or did not deter the United States and the international community at least in 1991 from resisting aggression. It also shows that practice can strengthen the law. As Judge Schwebel’s dissent stressed, the U.S. threat “sustained” UN Charter principles — another paradox: “Can it seriously be maintained that Mr. Baker’s calculated — and apparently successful — threat was unlawful? . . . Nor is it a case of the end justifying the means. It rather demonstrates that, in some circumstances, the threat of the use of nuclear weapons — as long as they remain weapons that are not proscribed by international law — may be lawful and rational.” 61

The situation involving Iraq in 1990-91 emphasizes the uniqueness of each international crisis. For example, Russia’s possession of an enormous nuclear arsenal surely has had a positive impact from President Putin’s point of view on the unfolding of the Ukraine crisis in 2014-15. If this hypothesis is correct, it would strengthen the conclusion that nuclear weapons historically have proved to be more useful for purposes of deterrence than coercing or compelling another state. 62 That seems to underlie Iran’s apparent wish to obtain nuclear weapons and Israel’s growing anxiety that it will. The International Court of Justice acknowledged at least the relevancy

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and utility of nuclear deterrence in its nuclear weapons advisory opinion.\textsuperscript{63}

\section*{III. NUCLEAR WEAPONS AND INTERNATIONAL LAW}

Apart from treaties regulating U.S. and Russian nuclear arsenals and delivery systems, the Limited Test-Ban Treaty of 1963, the Nuclear Non-Proliferation Treaty of 1968, and the creation of nuclear weapons-free zones in various regions, there is little positive international law directly and intentionally covering nuclear weapons. Those who want law to ban nuclear weapons have looked to instruments such as Protocol I of 1977 to the 1949 Geneva Conventions\textsuperscript{64} and bodies of law such as international humanitarian, human rights, and environmental law to advance their cause.\textsuperscript{65} The focus here is nuclear weapons viewed from the perspective of Protocol I, customary and international humanitarian law principles of necessity, proportionality, and distinction, and the International Court of Justice advisory opinion on nuclear weapons.

\subsection*{A. Protocol I}

By its terms, if not the intention of at least some of the negotiators,\textsuperscript{66} Protocol I would prohibit methods or means of warfare that are “of a nature

\textsuperscript{63} Nuclear Weapons Opinion, 245-47, paras. 45-48, 52; 253-54, paras. 64-67; 266, para. 105 (2) (B).


\textsuperscript{65} Nuclear Weapons Opinion, Oda, J. dissenting, available online: http://www.icj-cij.org/docket/files/95/7517.pdf (political character of question and motives of those asking for advisory opinion). Supra note 14, Dinstein, \textit{War}, 172-74 (International Court of Justice confuses \textit{jus ad bellum} and \textit{jus in bello}); Sloane, Cost of Conflation (confusion of law governing the use of force and the laws of war); \textit{supra} note 4, Rostow, World Health Organization (use of laws of war to outlaw war).

\textsuperscript{66} Even before 1977, the Tokyo District Court held, in 1963, without practical effect, that the bombings of Hiroshima and Nagasaki violated general principles of international law because of their indiscriminate destructiveness and the undefended character of the two cities. \textit{Shimoda v. The State (Japanese Government)}, 8 Japan Ann. Int’l L. 212 (1964); \textit{supra} note 4, Rostow, World Health Organization, at 180-81. Int’l Comm. of the Red Cross [ICRC], Diplomatic Conference on the Reaffirmation and Development of International Humanitarian Law Applicable in Armed Conflicts, Geneva, 1974-1977, vol. IV, 209, 211 (unspecified NGOs argue text regarding unnecessary injury includes nuclear weapons); see \textit{ibid.}, vol. V, 31, 90 (Romanian delegate argues for coverage of nuclear weapons); see \textit{ibid.}, 89, 145 (Swedish delegate states that “conventional” does not include “nuclear” weapons and argues against inclusion); see \textit{ibid.}, vol. VI, 115, 301 (Indian delegate argues for including
to cause superfluous injury or unnecessary suffering . . . [or] which are intended, or may be expected, to cause widespread, long-term and severe damage to the environment.\(^{67}\) Protocol I provides that

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\text{among others, the following types of attacks are to be considered as indiscriminate: (a) an attack by bombardment by any methods or means which treats as a single military objective a number of clearly separated and distinct military objectives located in a city, town, village or other area containing a similar concentration of civilians or civilian objects; and (b) an attack which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated.}\(^{68}\)
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Language of this kind caused a number of States to make declarations at the time of signature or associated with their instruments of accession or ratification of the Protocol I that the Protocol I does not specifically cover nuclear weapons. Use of nuclear weapons nonetheless must conform to the international law protections afforded civilians and combatants in accordance with "established custom . . . the principles of humanity and . . . the dictates of public conscience."\(^{69}\) With these principles in mind, the International Court of Justice addressed the nuclear weapons question in 1996.

\section*{B. The International Court of Justice and Nuclear Weapons}

Notwithstanding the history of coming to terms with nuclear weapons and of efforts since 1961 by nuclear weapons States to conclude treaties

\footnote{\textsuperscript{67} See supra note 63, Protocol I, Art. 35, paras. 2, 3.} \footnote{\textsuperscript{68} Supra note 63, Protocol I, Art. 51, para. 5.} \footnote{\textsuperscript{69} For example, Belgium, Canada, Germany, Ireland, Italy, the Netherlands, Spain, the United Kingdom, and the United States. Ireland declared that it would apply the Protocol in a manner consistent with the ICJ Nuclear Weapons Opinion. See Documents on the Laws of War, 499-512 (A. Roberts & R. Guelfi eds., 3rd ed. 2000) ("Laws of War"). See also Nuclear Weapons Opinion, 257, para. 78 (Martens Clause); 259-60, paras. 84-87.}
addressing significant issues arising from the development, testing, and deployment of nuclear weapons, in 1994 the UN General Assembly asked the International Court of Justice for an Advisory Opinion on the question, “[i]s the threat or use of nuclear weapons in any circumstance permitted under international law?” The question focused attention on practice and law, as Judge Schwebel wrote in dissent. The issue before the Court was how to square nuclear weapons with the central principles of international law governing the international use of force in self-defense, necessity and proportionality, to which the laws of war added the requirement to distinguish between combatant and non-combatants. Nuclear weapons do not fit easily into these principles, yet they must as the principles and the weapons are threads in the same tapestry.

The Court’s advisory opinion on nuclear weapons is a circumspect document. The Court warned readers that, although the request came from the UN General Assembly, “the effect of the opinion is a matter of appreciation.” It also noted that it had no legislative power. The Court thus warned against treating its views as binding and emphasized limits on the significance of its conclusions. In these circumstances, one may well ask why spend time on the opinion at all. It is necessary to do so because the International Court of Justice is the principal judicial organ of the United Nations. Its treatment of nuclear weapons, a question of acute importance to all persons and States, most especially perhaps to the five Permanent Members of the United Nations because they possess nuclear weapons, necessarily merits attention.

The Court held that the question posed had to be analyzed in terms of the laws of war. The “right not arbitrarily to be deprived of one’s life” affirmed in the International Covenant on Civil and Political Rights existed in time of war, but the laws of war determine what constitutes an arbitrary deprivation.

70 Nuclear Weapons Opinion at 226, para. 1. The Court noted differences between the French and English authoritative versions of the question and concluded that “its real objective is clear: to determine the legality or illegality of the threat or use of nuclear weapons,” at para. 20.
72 See generally, e.g., supra note 14, Dinstein, War; supra note 14, Dinstein, Conduct. Some have concluded that nuclear weapons are not per se incompatible with such legal principles. See, e.g., Nuclear Weapons Opinion, 429-555 (Weeramantry, J. dissenting).
73 Ibid., 237, para. 17. The Court elaborated: “The Court is aware that, no matter what might be its conclusions in any opinion it might give, they would have relevance for the continuing debate on the matter in the General Assembly and would present an additional element in the negotiations on the matter. Beyond that, the effect of the opinion is a matter of appreciation.”
74 Ibid., 237, para. 18.
of life in wartime. The Court found that Protocol I’s prohibition on methods or means of warfare expected to cause widespread, long-lasting damage to the environment does not prohibit the use of any particular weapon. At the same time, implicitly recognizing that Protocol I does not per se constitute a statement of customary international law, the Court noted that the Protocol’s provisions with respect to the environment constitute “powerful constraints for all States having subscribed to these provisions.”

The Court then addressed the issue of the strategic use of force, as contrasted with military operations. Articles 2 and 51 of the UN Charter concern the decision to use force.

The Court affirmed the understanding that the UN Charter limited but did not eliminate the right to use force. The Charter itself prohibits the threat or use of force against a State’s political independence or territorial integrity. It also affirmed the “inherent” right of self-defense if an armed attack occurs, thus incorporating into the Charter rule the customary law requirements of necessity and proportionality. Therefore, the Court concluded: “it suffices for the Court to note that the very nature of all nuclear weapons and the profound risks associated therewith are further considerations to be borne in mind by States believing they can exercise a nuclear response in self-defence in accordance with the requirements of proportionality.”

Much has been written about the requirement that a use of force in self-defense must meet the customary international law requirement of

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76 Ibid., 241-42, paras. 27-31.
77 Ibid. 242, para. 31. Israel’s Supreme Court and the International Criminal Court for the Former Yugoslavia concluded that Article 51 of Protocol I concerning protections for civilians restated customary international law because “[i]t is consistent with the provisions of common article 3 of the Geneva Conventions, to which Israeli [sic] is a party and which everyone agrees reflect[s] customary international law. . . .” Public Committee against Torture in Israel et al. v. Government of Israel et al., HCJ 769/02, Dec. 14, 2006, 491, para. 30, citing, inter alia, Prosecutor v. Strugar, ICTY case IT-01-42 (2005). Customary international law concerns “a clear and continuous habit of doing certain actions which has grown up under the aegis of the conviction that these actions are, according to international law, obligatory or right.” L. Oppenheim, 1 International Law, at 27 (R. Jennings & A. Watts eds., 9th ed. 1992). In this connection, see M. J. Matheson, “The United States Position on the Relation of Customary International Law to the 1977 Protocols Additional to the 1949 Geneva Conventions,” 2 Am. U. J. Int’l L. & Policy, 415, 419 (1987), which is most cautious about declaring that portions of the Protocols constitute accurate statements of customary international law.
78 UN Charter Art. 2, para. 4.
79 Nuclear Weapons Opinion, at 245 para. 41.
80 Ibid. at para. 43.
proportionality. Any use of force must be limited to that which is reasonable in terms of the attainment of a lawful objective. In other words, the goal of the principle is to keep the quantum of violence as low as possible: “economy in coercion,” in McDougal’s and Feliciano’s words. At the same time, the State exercising the right of self-defense has a right to defend itself and achieve the lawful goals of self-defense — the end to the situation giving rise to the right to use force in self-defense. The means of war available to a defending State are not unlimited — such a State should not use a nuclear weapon in self-defense against an attacker armed with bows and arrows. At the same time, the defending state need not acquire precision guided or biodegradable weapons in order to be able to defend itself. The requirement is to apply a rule of reason given the totality of the circumstances: the use of force in self-defense has to be limited to both the requirements of self-defense and the amount of violence reasonably necessary to achieve the lawful goal of self-defense. Until and unless the UN Security Council decides otherwise, the defender decides what is reasonable and necessary. Even in the context of military operations, the concept of proportionality does not mean equivalency of force and “methods and means” of warfare. Otherwise, the opponent would dictate the battle.

The Court opined that international law did not prohibit nuclear deterrence. It quoted with approval the Security Council’s positive response, in 1968, in connection with the adoption of the Nuclear Non-Proliferation Treaty, to the publicly-stated security assurances of the nuclear-weapon states to non-nuclear weapons states. These statements were and are essential to the non-proliferation regime.

The Court’s conclusions followed logically from its discussion of fact and law. The most notable conclusion of the opinion, however, showed the delicacy of the Court’s political position:


82 See supra note 14, McDougal and Feliciano, Law and Minimum World Public Order, 218. See supra note 80, Newton & May, Proportionality, 21. “Methods and means of warfare” is a phrase that occurs frequently in Protocol I. See also, e.g., Part III “Methods and Means of Warfare, Combatant and Prisoner of War Status.” Supra note 68, Roberts & Guelff, Laws of War, 442.

83 See infra notes 97-98.
However, in view of the current state of international law, and of the elements of fact at its disposal, the Court cannot conclude definitively whether the threat or use of nuclear weapons would be lawful or unlawful in an extreme circumstance of self-defence, in which the very survival of a State would be at stake.85

Judge Schwebel’s and Professor Dinstein’s critiques are severe. Judge Schwebel argued that the Court should not have agreed to issue an opinion if it was to conclude that it could not conclude.86 Professor Dinstein noted that the non-conclusion begged such questions as, does the Opinion mean a State can use nuclear weapons if it believes its survival is at issue even in circumstances where it has not been threatened or attacked with nuclear weapons?87

In addressing the nuclear weapons problem, the International Court of Justice was said to have been animated by the notion that it should be helpful in political deliberations.88 If true, the Court decided to try to follow a realistic approach, taking the totality of the circumstances into account in reaching its conclusions.89 In the end, the Court left the world where it started: humans must look to themselves to avoid nuclear disaster.

IV. NUCLEAR PEACE

Among the many nuclear paradoxes, the non-military use of nuclear weapons since 1945 stands out. Nuclear weapons States have tested the utility of nuclear weapons in international relations in political, strategic, and tactical terms. None of the longstanding nuclear powers nor the newcomers

85 Nuclear Weapons Opinion, at 266 para. (2) E. It is difficult to argue with Judge Schwebel’s blistering dissent, accusing the Court of abdication: “When it comes to the supreme interests of State, the Court discards the legal progress of the twentieth century, puts aside the provision of the Charter of the United Nations of which it is “the principal judicial organ”, and proclaims, in terms redolent of Realpolitik, its ambivalence about the most important provisions of modern international law. If this was to be its ultimate holding, the Court would have done better to have drawn on its undoubted discretion not to render an opinion at all.” Ibid. at 322 (Schwebel, J., dissenting).
87 Supra note 14, Dinstein, Conduct, 83-86.
88 Conversation with a judge of the International Court of Justice in New York during the period 2003-04.
89 It has not always done so since the 1986 Nicaragua decision, with the result that its jurisprudence counts more for lititants than states. See, e.g., N. Rostow, “Wall of Reason: Alan Dershowitz v. the International Court of Justice,” 71 Alb. L. Rev. 953 (2008) (analyzing the Court’s Advisory Opinion on the Israeli Wall and decisions/opinions in regard to self-defense under the UN Charter).
has done more — yet.\textsuperscript{90} The caveat is important. Nuclear peace has not been kept by indifference, but by effort. Public anxieties helped.

Where do nuclear weapons fit into the public’s consciousness today? Earlier in the nuclear age, the focus on nuclear weapons or worry about their possible use helped shape U.S. grand strategy and define its goals. There were a substantial number of experts on the technology, politics, strategy, and tactics of nuclear weapons. We seem to have fewer, in and outside of government, than was the case during the Cold War.\textsuperscript{91} Yet the tactical and strategic challenges posed by nuclear weapons are no less important than they were at a time when the Soviet Union existed.\textsuperscript{92} The most one sees today is concern about nuclear weapons in regard to North Korea, Iran, and terrorists. The recent U.S. national security strategy extols the virtue of a nuclear weapons free world.\textsuperscript{93} Nuclear weapons concerns do not seem to occupy the frontal lobes of policymakers and commentators as they once did. Most Americans do not give nuclear weapons a second thought. They may occupy the background in a human brain, constantly running like a computer program one neither sees nor uses. They should occupy the foreground; perhaps, recent publications on a “second” nuclear age suggest that a return of nuclear weapons to the front burner of public awareness is on its way.\textsuperscript{94}

Governments have decided to possess nuclear weapons; there is no international chorus of nuclear weapons States clamoring for their abolition and international control.\textsuperscript{95} Some have entered treaties foregoing nuclear weapons, regulating the testing, proliferation, means of delivery, and numbers of weapons permitted to treaty-parties.\textsuperscript{96} These agreements reflect the form of uneasy coexistence with nuclear weapons that has developed since World War II. Such unease probably is essential if the period in which nuclear weapons have not been used in war is to continue.


\textsuperscript{91} \textit{Supra} note 20, Bracken, \textit{Second Nuclear Age}, ch. 8; Defense Science Board, \textit{Nuclear Deterrence Skills} (2008).


\textsuperscript{93} Available online: \url{http://www.whitehouse.gov/blog/2015/02/06/president-obamas-national-security-strategy-2015-strong-and-sustainable-american-leadership}.

\textsuperscript{94} \textit{Supra} note 20, Bracken, \textit{Second Nuclear Age}; \textit{supra} note 91, Sokolski, Overview; G. Koblentz, \textit{Strategic Stability in the Second Nuclear Age} (2014).

\textsuperscript{95} \textit{Supra} note 15, Unkicked Addiction.

This coexistence reflects the outsized nature of the danger posed by nuclear weapons. Notwithstanding the real war character of the Cold War, the United States and the Soviet Union were able to see a common interest in learning how to manage their relationship so as to avoid nuclear showdowns, much less conflicts, and to regulate nuclear weapons without abolishing them. In addition to bi-lateral agreements, they were able to persuade the international community that nuclear proliferation beyond the first states to possess nuclear weapons endangered the nuclear peace. The nuclear weapon thus separated the nuclear and non-nuclear weapons States and tied them together in a common enterprise.97 The sobriquet “nuclear age,” and the inability to confine nuclear explosions in time and space imply the need for a common enterprise and the fact of it, at least as reflected in the taboo on nuclear proliferation and testing.

Nuclear weapons provided a central theme of the learning process represented by the development of Soviet-American nuclear relations and came to exist almost separately from the rest of the relationship. One example was the American, British, and Soviet declarations in 1968, when the Non-Proliferation Treaty was endorsed at the Security Council. In identical statements, they promised to come to the aid, through the mechanisms of the United Nations, of any non-nuclear weapons State threatened or attacked by nuclear weapons: “The United States affirmed its intention, as a permanent member of the United Nations Security Council, to seek immediate Security Council action to provide assistance, in accordance with the Charter, to any non-nuclear-weapon State party to the Treaty on the Non-Proliferation of Nuclear Weapons that is a victim of an act of aggression or an object of a threat of aggression in which nuclear weapons are used.”98 The fact that the United States, Britain, and the Soviet Union could agree on such a policy and make it known shows how far they had come through the trial and error of the Cold War to mutually understand that another world war would be conducted with nuclear weapons by all principal belligerents resulting therefore in a catastrophe not worth the price. They reached this understanding at the height of the Vietnam War and other crises in relations between the United States and the Soviet Union and its allies. These declarations were part of the incentive to non-nuclear weapons States to enter and stay in the Nuclear Non-Proliferation Treaty.99

99 Ibid., 56.
The Nuclear Non-Proliferation Treaty codified what has become a taboo: every new nuclear weapons State encounters intense international criticism when it acquires nuclear weapons. Alone, such criticism has not prevented proliferation. Each decision to forego nuclear weapons — Libya’s, South Africa’s, and Ukraine’s come to mind — reflected different calculations of interest just as has the decision since Hiroshima and Nagasaki of every nuclear weapon State to possess them. In the case of Ukraine, the Presidents of the United States (Clinton) and Russia (Putin), and the Prime Minister of the United Kingdom (Major) jointly issued a memorandum reaffirming their 1968 commitments “to seek immediate United Nations Security Council action to provide assistance to Ukraine, as a non-nuclear weapon State party to the Treaty on the Non-Proliferation of Nuclear Weapons, if Ukraine should become a victim of an act of aggression or an object of a threat of aggression in which nuclear weapons are used.”

China cheered from the sidelines. It did not join the declaration. Britain, Russia, and the United States also reaffirmed their obligations not to engage in a threat or use of force against the Ukraine, and pledged “to refrain from economic coercion designed to subordinate to their own interest the exercise by Ukraine of the rights inherent in its sovereignty and thus to secure advantages of any kind.” Russia’s seizure of Crimea and “aggression” against Ukraine raise questions about the continued relevancy of these 1994 commitments. Indeed, Russian action has implicated the 1968 declarations because the 1968 and 1994 language is so similar and in some paragraphs identical.

Tensions among the world’s greatest powers did not prevent efforts to control nuclear weapons during the Cold War. Today’s tensions should not derail similar efforts. Even during the U.S. led campaign in Iraq after 2003, adversaries on that issue came together to agree to do their utmost to keep weapons of mass destruction out of the hands of non-state actors.

**Affirming** that proliferation of nuclear, chemical and biological weapons, as well as their means of delivery, constitutes a threat to international peace and security...

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101 China also endorsed Ukraine’s actions. Beijing’s assurance was a negative guarantee, only concerning China: “The Chinese Government has always maintained that under no circumstances will China use or threaten to use nuclear weapons against non-nuclear-weapon States or nuclear-weapon-free zones. This principled position also applies to Ukraine.” UN Doc. A/49/783, Dec. 14, 1994, containing statement of Dec. 4, 1994.
102 Ibid.
103 The word is President Obama’s. State of the Union Address, Jan. 20, 2015.
1. Decides that all States shall refrain from providing any form of support to non-State actors ["not acting under the lawful authority of any State"] that attempt to develop, acquire, manufacture, possess, transport, transfer or use nuclear, chemical or biological weapons and their means of delivery.¹⁰⁵

Indeed, the largest obstacle to adoption of this UN Security Council resolution was the fact that the Council used its power to issue binding decisions, creating obligations on all States. Some States, such as Germany, thought a treaty vehicle was more appropriate than a Security Council resolution.¹⁰⁶ The substantive Security Council position engendered no opposition. The nuclear non-proliferation regime, which has proved to be more durable and, as a taboo, more powerful than anyone thought would be the case in 1968, shows that restraint is sustainable in the nuclear age. There are, of course, no guarantees as to the future.

The impact of nuclear weapons on world public order is real. It includes the redefinition of general peace, national goals, at least for the United States and its allies, reconsideration of the content of national grand strategies, and even new understandings of the reach and content of international law. They also symbolize the State: if their use as a weapon of war, as contrasted with a weapon of diplomacy,¹⁰⁷ is permissible only when the existence of the State is at issue,¹⁰⁸ then they are the ultimate guardians of what political scientists frequently call the “Westphalian System.”¹⁰⁹ They almost certainly were the most important influence shaping U.S. grand strategy during the entire Cold War.¹¹⁰ This fact possibly influenced the International Court of Justice in its advisory opinion.

¹⁰⁵ S/RES/1540 (2004), Apr. 28, 2004. Pursuant to Article 25 of the UN Charter, “The Members of the United Nations agree to accept and carry out the decisions of the Security Council in accordance with the present Charter.” Therefore, by custom and agreement among the Permanent Members of the Security Council, those paragraphs commencing with the word “decides” are binding within the meaning of Article 25.

¹⁰⁶ Other UN Security Council members, such as Pakistan and Germany, and at least two senior members of President Bush’s administration also shared this view. Apr. 22, 2004, available online: http://www.un.org/press/en/2004/sc8070.doc.htm.

¹⁰⁷ See supra note 20, Bracken, Second Nuclear Age, ch. 2.

¹⁰⁸ Nuclear Weapons Opinion, 266, para. (2) E.


¹¹⁰ For example, President Truman made the prevention of another world war the principal theme of his foreign policy. Note 27.
V. CONCLUSION

Declared nuclear-weapon States, and at least one of those presumed to possess nuclear weapons, have engaged in practices that have created an expectation of restraint. The question for everyone is can this expectation continue to be realized. Basing an optimistic view of the future on the avoidance of nuclear conflict since 1945 may prove to be correct, but the trendlines suggest that pessimism is more realistic. Two experts who have peered into the future believe that “[t]he incentives for the retention or acquisition of nuclear weapons are likely to increase in 2030. This will arise most fundamentally from a less certain and secure geopolitical environment.”

Advances in nuclear weapons technology may produce smaller, high-yield weapons that will pose threats in and of themselves because they will be more easily transportable and concealable. Russia is investing in “clean” and precise low-yield weapons to enhance their deterrence capability and increase the usability of nuclear weapons. Any diminution of the assumed horror of their use likely would increase the probability of nuclear conflict. In addition, because of nuclear weapons’ demonstrated (and unequalled) deterrent capability, governments may be drawn to them as the variety of potentially mortal threats, such as in the cyber domain, grows.

It would, of course be desirable, for the international community to come together and agree on an effective multilateral approach to the continued existence and threat of nuclear weapons — a modern version of the 1946 Acheson-Lilienthal Report and the Baruch Plan. Those ideas foundered, at bottom, on the system of independent states that is fundamental to the international system. Independent States have proved both to be the source of conflict and the guardian of freedom. As a result, for the foreseeable future, governments should work on the nuclear problem as a shared concern, overriding differences, communicating that the weapons are not to be used in war — ever again. Multilateral institutions and international law can only bolster such efforts. They cannot provide a deus ex machina solution to Pandora’s Paradox.

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111 See supra note 36, Caves and Carus, Future of WMD, 41.
112 Ibid. at 24-25.
113 Ibid. at 30-31.