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Disarmament Is Good, but What We Need Now Is Arms Control

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This article aims to correct a number of misconceptions held by both scholars and activists about the United Nations Treaty on the Prohibition of Nuclear Weapons (TPNW), and international nuclear weapons law generally. It first reviews the development of international law related to nuclear weapons, and provides a novel taxonomy of legal obligations divided into three substantive categories. It then examines the TPNW within that taxonomy, and considers how it should be understood to fit within this legal context. It concludes that the TPNW is essentially a nuclear disarmament treaty. While it should be welcomed as a contribution to nuclear disarmament law, it should not be confused with nuclear arms control treaties, which are distinct in role and purpose. The article concludes that at the current moment of crisis in nuclear arms control law, a refocusing of attention is needed to conclude a successor treaty to New START, which is due to expire in 2026.

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INTRODUCTION

This article aims to correct a number of important misconceptions held by both scholars and activists about the United Nations Treaty on the Prohibition of Nuclear Weapons (TPNW), and international nuclear weapons law generally. This correction is timely, in light of the renewed salience of nuclear weapons threats brought about by Russia's invasion of Ukraine in 2022, and the effect that this rupture in international relations is having on international nuclear arms control negotiations. A correct understanding of the TPNW in its legal and chronological context will, it is hoped, contribute to an urgently needed renaissance of attention to nuclear arms control diplomacy.

A legal scholarly literature has lately begun to develop which tells the story of the coming into being of the TPNW, which was adopted in 2017 and entered into force on January 22, 2021.[1] There have been a number of reviews of the unique and fascinating international civil society movement, and later international diplomatic efforts and negotiating history, behind the treaty.[2] There have been cheerleaders for the new treaty, and detractors of it. But none of these works have adequately placed the treaty in its context both legally and chronologically, or used the lessons of that contextualization to draw sober conclusions about the role the TPNW plays, and should be expected to play, in international law relative to nuclear weapons going forward. This is

1. *See e. g.* Rebecca Davis Gibbons, *The Humanitarian Turn in Nuclear Disarmament and the Treaty on the Prohibition of Nuclear Weapons*, 25 Nonproliferation Rev. 11, 17 (2018); Samantha Pitts-Kiefer, *Inside the Surprisingly Collegial and Sometimes Ironic Nuclear Weapons Ban Negotiations*, Nuclear Threat Initiative (Apr. 6, 2017); Gro Nystuen, Kjølv Egeland & Torbørn Graff Hugo, The TPNW: Setting the Record Straight 1, (Norwegian Acad. of Int'l Law 2018); Kjølv Egeland, *Banning the Bomb: Inconsequential Posturing or Meaningful Stigmatization?*, 24 Global Governance 11, 15 (2018); Lewis A. Dunn, *The Strategic Elimination of Nuclear Weapons: An Alternative Global Agenda for Nuclear Disarmament*, 24 Nonproliferation Rev. 401-35 (2017); Global Security Special Report, Breakthrough or Breakpoint? Global Perspectives on the Nuclear Ban Treaty (Shatabhisha Shetty & Denitsa Raynova eds., European Leadership Network, 2017); Brad Roberts, Ban the Bomb? Or Bomb the Ban? Next Steps on the Ban Treaty 6 (European Leadership Network, 2018).

2. *See particularly* Alexander Kmentt, The treaty prohibiting nuclear weapons: how it was achieved and why it matters (2021).

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what I will attempt to do in this article.

International nuclear weapons law is currently in a very worrying state. That is particularly true of the subset of that law known as arms control law.[3] A number of forces have come together within the past couple of decades to bring to an effective halt the progress made both during and after the Cold War on establishing and implementing nuclear arms control agreements, particularly bilaterally between the U.S.S.R/Russia and the United States. And there is concern now that this halt in progress will turn, or perhaps has already turned, into a regression and even into a new nuclear arms race.

With the withdrawal by the U.S. in 2002 from the 1972 Anti-Ballistic Missile treaty (ABM), and more recently the 2019 U.S. withdrawal from the 1987 Intermediate-Range Nuclear Forces treaty (INF), there were real concerns that the 2010 New Strategic Arms Reduction treaty (New START), the last bilateral nuclear arms control in effect between the U.S. and Russia, would not be extended past its slated termination on February 5, 2021. Had that eventuality occurred, there would, as of February 6, 2021, have been no bilaterally agreed international legal limits on either the U.S. or Russia's stockpiling and fielding of nuclear weapons for the first time since the signing of the first Strategic Arms Limitation Treaty (SALT I) in 1972.

Fortunately for the arms control project, and for international peace and security generally, with only two days remaining until its expiration, on February 3, 2021, U.S. President Biden and Russian President Putin agreed to extend the New START treaty for five years, keeping in place New START's bilateral cap on deployed strategic nuclear weapons until 2026. Now, however, that date similarly looms like a countdown to the end of existing nuclear arms control agreements. This countdown is particularly ominous in light of the renewed attention to nuclear weapons brought about by Russia's invasion of Ukraine and its nuclear rhetoric in that context, both of which have led to a restrengthening of the NATO alliance, and uncomfortable reminders of Cold War nuclear weapons salience. The nuclear arms control situation has only worsened in 2023. In January 2023 the U.S. for the first time formally accused Russia of being in violation of New START, and in February 2023 Russia announced that it had suspended its participation in the

3. *See* Michael Krepon, Winning and Losing the nuclear peace: The rise, demise, and revival of Arms control (2022).

treaty.

In this article I will argue that the nuclear weapons reduction obligations contained in the TPNW are disarmament obligations, not arms control obligations or nonproliferation obligations. I will argue that it is important to make this identification and this distinction correctly in order to understand both what the TPNW *is* in the context of international nuclear weapons law, as well as what it *is not*. I will argue that what the TPNW *is* is essentially a disarmament treaty, following directly in the vein of Article VI of the Nuclear Nonproliferation Treaty (NPT). This is its correct legal context. It is a significant statement and reification of the will of a majority of states (i.e. the 122 states that voted for its adoption), that the world move toward complete nuclear disarmament. It is an important and laudable milestone accomplishment in the disarmament category of international legal obligations relevant to nuclear weapons.

What the TPNW *is not*, however, is an arms control treaty. It does not address the current worrying state of nuclear arms control law at all, nor was it intended to. However, this worrying state of nuclear arms control law is the chronological context into which the TPNW was born, and it is the most pressing problem facing international nuclear weapons law currently. To be clear, the fact that the TPNW does not address this nuclear arms control crisis moment is not a fault of the treaty, nor of its supporters. Arms control was not their purpose. The TPNW does exactly what it was meant to do by its supporters and drafters—i.e. progress the agenda of nuclear disarmament in international legal sources. However, now that the TPNW is in force, it seems that many of the proponents of the TPNW have adopted the problematic view that the TPNW has taken, or should take, the place of nuclear arms control treaties, i.e. that the TPNW and the implementation steps adopted pursuant to it, should now be understood to completely cover the normative ground previously covered by both nuclear disarmament law and nuclear arms control law. Their view seems to be that further effort on and attention to arms control is unnecessary, because states possessing nuclear weapons should now simply sign on to the TPNW and follow its protocols in order to completely disarm their nuclear stockpiles.[4] However, this view fundamentally misunderstands the

4. *See generally* Alicia Sanders-Zakre & Beatrice Fihn, *Implementation of the Treaty on the Prohibition of Nuclear Weapons; Hopes and Expectations for the Future*, J. FOR PEACE AND NUCLEAR DISARMAMENT, 4:1, 94-9 (2021); "We've

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history of nuclear weapons related lawmaking, and the parallel, yet separate and distinct purposes and roles played by nonproliferation, disarmament, and arms control treaty obligations. It is also a dangerous view, at a moment when nuclear arms control law is in crisis, and is needful of high level and timely political attention and prioritization.

I will argue herein that everyone in the nuclear arms control and disarmament community—both states and international civil society—should at this point take the win that the TPNW represents for disarmament law, and move forward by sustaining the creative energy that led to the adoption of the TPNW and refocusing it on the task of saving existing arms control treaties, particularly between the U.S. and Russia, and creating a new generation of arms control treaties that push the agenda and the law of arms control forward, and respond to the modern technological and political challenges facing it.

I will proceed by first reviewing the development of international law related to nuclear weapons generally, and provide a taxonomy of legal obligations divided into three substantive categories, as a means for understanding the full scope of this development and the main substantive distinctions within it. I will then examine the TPNW within that taxonomy and consider how it should be understood to fit, and what role it should be understood to play, within this broader legal context. I will then offer prescriptions for future focus and legal development.

I. TERMINOLOGY AND TAXONOMY

The three terms primarily used to describe international legal obligations that states take upon themselves with regard to nuclear weapons through treaties are: 1) arms control obligations; 2) nonproliferation obligations; and 3) disarmament obligations. Each of these terms is associated with a particular set of ideas, assumptions, purposes, and histories, including histories of particular eras or efforts, or particular

Done Something Quite Significant:" A Conversation with ICAN's Beatrice Fihn, Arms control Association (Dec. 2017). ("It's in [the nuclear weapon states'] power! If they wanted to, they could sign this treaty and eliminate their nuclear weapons, and then the treaty would lead to elimination.").

events and contexts.[5] And while they are often casually conflated by observers of this area of law, it is important to analytically disentangle and categorize them.[6]

Every treaty containing arms control obligations, nonproliferation obligations, or disarmament obligations, was developed by a particular set of actors, at a particular moment in time and circumstance, acting on a particular set of concerns, with a particular set of purposes the treaty is designed to achieve. That being said, while each treaty is ultimately unique, some commonalities in substance and purpose across groups of treaties in this area can be identified. These different kinds or categories of obligations are designed to accomplish different purposes. And while it is certainly true that there is conceptual overlap among these purposes, and that multiple of these purposes may be enshrined in the text of a single treaty, *at their essence they are distinct purposes which exist in parallel in the substance and structure of treaties related to nuclear weapons.*

I will proceed to describe and discuss each of these three categories of obligations in turn, and identify the primary treaties constituting each category, beginning with arms control obligations.

A. Arms Control Obligations

Nuclear arms control obligations are at present to be seen primarily in the group of treaties bilaterally concluded between the U.S. and the U.S.S.R/Russia during and after the Cold War.[7] The purpose of these treaties was and is to facilitate a reciprocally coordinated implementation of bilaterally agreed limits on the number of primarily strategic nuclear weapons and delivery systems deployed by the parties. These treaties are rightly credited as having facilitated the coordinated drawdown of stockpiled and deployed nuclear weapons by the superpowers from their Cold War combined high of over 65,000, to

5. *See, e.g.,* Lawrence Freedman, The Evolution of Nuclear Strategy (3rd ed., 2003).

6. *See, e.g.,* Jonathan Black-Branch referring to the TPNW as an arms control treaty at pg. 10 of his book The Treaty on The Prohibition of Nuclear Weapons: Legal Challenges for Military Doctrines and Deterrence Policies (2021).

7. *See e.g.,* Jozef Goldblat, Arms Control: The New Guides to Negotiations and Agreements (2002).

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the present number of around 13,400. Arms control treaties typically provide for carefully negotiated mechanisms of monitoring and verification of the implementation by the other party of its obligations, in order to foster transparency and trust. They also typically set specific numerical targets with regard to a carefully defined range of weapons and delivery systems, and provide detailed schedules for achieving the agreed limitations. Importantly, arms control treaties typically do not state a purpose of reducing the nuclear stockpiles of states parties to zero. Rather, they state purposes of reducing tensions, building trust, limiting the role and importance of nuclear weapons in the parties' strategic relationship, while maintaining their nuclear arsenals.

1. SALT I and the ABM

The United States and the Soviet Union began to build up their nuclear weapons stockpiles from the early 1950's. By 1955 it is estimated that the U.S. possessed 2,422 nuclear weapons, to the U.S.S.R.'s 200. By 1960 those numbers had grown to 18,638 in the U.S. arsenal and 1,605 in the U.S.S.R's.[8] While some efforts were made in the 1950's to discuss principles of limiting the pace of growth in numbers, no concrete agreements resulted. The watershed moment for both countries was the Cuban Missile Crisis in 1962, when the superpowers came dangerously close to a nuclear exchange. Seeing how a situation of dispute could escalate so quickly to a nuclear crisis shocked officials in both countries. Attention therefore turned to facilitating direct communication in a nuclear crisis, which produced the so called "Hotline Agreement" in 1963, and to establishing mutually agreed principles of nuclear arms control.

The first set of Strategic Arms Limitation Talks between the U.S. and the U.S.S.R. began in Helsinki in November 1969. The talks continued in various locales over the next two-and-a-half years, and were finally concluded in Moscow in May 1972. These negotiations produced two treaties. The first was the Anti-Ballistic Missile Treaty (ABM), in which the two parties agreed not to field nation-wide anti-ballistic missile systems to protect their territories. The rationale for this agreement was that an absence in each state of a theater-wide defensive missile interceptor system purposed in defeating the offensive missile systems

8. Robert Norris & Hans Kristensen, *Global Nuclear Weapons Inventories, 1945-2010*, Bull. of the Atomic Scientists (July/Aug. 2010).

of the other, would remove a part of the imperative both states would feel to continuously add both quantitatively and qualitatively to their nuclear arsenals, thus exerting a restraining effect on the hitherto unrestrained arms race. It also meant that both sides agreed to a vulnerability to a first strike by the other state, which ushered in the era of mutually assured destruction. As stated in the ABM preamble, the parties considered "that effective measures to limit anti-ballistic missile systems would be a substantial factor in curbing the race in strategic offensive arms and would lead to a decrease in the risk of outbreak of war involving nuclear weapons."

The ABM treaty provides for a number of means of mutual verification of compliance with the treaty's terms. The first is the recognition in Article XII that each side may use "national technical means" of verification. This was slightly coded terminology meant to encompass methods of observation including reconnaissance aircraft and satellite photography, radar and sonar observation, and telemetry intelligence. The text also provides that each side should not interfere with these national technical means, or use deliberate concealment measures.

The second means of verification is provided for in Article XIII's creation of a Standing Consultative Commission, comprised of representatives from both parties, which can *inter alia* consider complaints of noncompliance, provide a forum for information request and sharing, and "consider possible changes in the strategic situation which have a bearing on the provisions of this Treaty."

The other treaty signed in Moscow in 1972 was an Interim Agreement (SALT I) which froze at existing levels the number of intercontinental ballistic missile (ICBM) launchers, submarine-launched ballistic missile (SLBM) launchers, and SLBM carrying submarines possessed by both parties.[9] The definition of a land based ICBM launcher was stipulated as a launcher "for strategic ballistic missiles capable of ranges in excess of the shortest distance between the northeastern border of the continental United States and the northwestern border of the

9. "The Parties understand that land-based ICBM launchers referred to in the Interim Agreement are understood to be launchers for strategic ballistic missiles capable of ranges in excess of the shortest distance between the northeastern border of the continental United States and the northwestern border of the continental USSR." (Provision A of the "Agreed Statements" attached to the Interim Agreement).

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continental USSR." SLBM launchers were understood according to the ballistic capabilities of missiles deployed on submarines. This was the first agreement between the superpowers restricting their possession of specific strategic nuclear weapons delivery systems. Its purpose was stated in the preamble as the parties' conviction that "the Treaty on the Limitation of Anti-Ballistic Missile Systems and this Interim Agreement on Certain Measures with Respect to the Limitation of Strategic Offensive Arms will contribute to the creation of more favorable conditions for active negotiations on limiting strategic arms as well as to the relaxation of international tension and the strengthening of trust between States."

With regard to verification, the SALT I text in Article V duplicates the language on national technical means of verification found in Article XII of the ABM treaty, and Article VI of SALT I provides that issues of verification and compliance arising under SALT I will be addressed through the Standing Consultative Commission created in the ABM treaty.

While SALT I did importantly restrict the possession of launching platforms for ICBMs and SLBMs, it did not address strategic bombers which could also serve as a delivery means for nuclear weapons, nor did it address or restrict the number of missiles or nuclear warheads possessed by each state. These facts allowed the two sides to continue increasing the size of their nuclear weapons stockpiles, for delivery through bomber forces, and for delivery through multiple independently targetable re-entry vehicles (MIRVs), which were mounted onto their ICBMs and SLBMs.

In understanding the content of arms control treaties past and future, an important distinction must be drawn between strategic nuclear weapons and non-strategic or tactical nuclear weapons. With the exception of the 1987 Intermediate Range Nuclear Forces Treaty (INF), all nuclear arms control treaties to date have addressed only strategic nuclear weapons. These are weapons that are used in a strategic military mission. According to the U.S. Department of Defense Dictionary of Military Terms, a strategic military mission is:

> Directed against one or more of a selected series of enemy targets with the purpose of progressive destruction and disintegration of the enemy's warmaking capacity and will to make war. Targets include key manufacturing systems, sources

> of raw material, critical material, stockpiles, power systems, transportation systems, communication facilities, and other such target systems. As opposed to tactical operations, strategic operations are designed to have a long-range rather than immediate effect on the enemy and its military forces.[10]

Strategic nuclear weapons tend to be of longer delivery range, and of higher explosive yield, capable of striking the enemy interior from long distances. Tactical nuclear weapons, by contrast, tend to be of shorter delivery range (typically under 400 miles) and of lower explosive yield, and are used against discrete targets to support more limited military missions. Again with the exception of the INF, tactical nuclear weapons have never been covered by arms control treaties, and are subject only to an informal regime of reciprocal unilateral statements by the U.S. and U.S.S.R./Russia. Arms control treaties do not give definitions of strategic and tactical nuclear weapons as such, rather they provide the technical specifications of the weapons systems they regulate, and often name the specific systems held by each party.

SALT I and the ABM treaty are finally noteworthy as the first nuclear arms control treaties to feature language on treaty withdrawal that would become universal, and typically verbatim, in all nuclear arms control treaties to follow:[11] It was according to these terms that the United States withdrew from the ABM treaty in 2002. SALT I and the ABM treaty were important accomplishments of, and contributors to, the détente era of U.S./Soviet relations in the early 1970's.[12]

10. Pg. 346 (1985).

11. Daniel H. Joyner & Marco Roscini, *Withdrawal from Nonproliferation Treaties, in* NONPROLIFERATION LAW AS A SPECIAL REGIME: A CONTRIBUTION TO FRAGMENTATION THEORY IN INTERNATIONAL LAW (Daniel H. Joyner & Marco Roscini, eds., 2012).

12. In November 1972 officials from the U.S. and U.S.S.R. began to discuss further restrictions on nuclear weapons and delivery systems. In November of 1974 the parties reached a basic agreed framework for what would become the SALT II treaty text. Further detailed work on the text continued for almost five years until the parties finally signed the treaty and an accompanying protocol on June 18, 1979. The SALT II treaty text is far longer and more detailed than SALT I, and includes within most of its articles a set of agreed statements and common understandings between the parties, that stipulate in excruciating detail the precise missiles, bombers, re-entry vehicles, etc., which are the subject of its agreed obligations. SALT II was significant in that it was the first nuclear arms control treaty to provide for equal aggregate limits for both parties on all categories of strategic nuclear

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2. INF

In the 1970's and early 1980's, the Soviet Union stationed an increasing number of short and intermediate range nuclear missiles on its western border and in the countries of the Warsaw Pact. These weapons were purposed in threatening Western European allies of the United States. In response, the United States stationed similar range cruise and ballistic nuclear missiles on the territories of several of its NATO allies in Europe. These deployments were of particular concern to European countries, as they set Europe up to be the likely first nuclear theater in the event of war between the superpowers. For the superpowers as well, having nuclear weapons in such close geographic proximity to each other, with reduced response time as compared with ICBMs, was seen as inherently destabilizing. Efforts towards a treaty specifically addressing these short and intermediate range weapons began in the early 1980's, but only began to progress with the advent of the Soviet premiership of Mikhail Gorbachev in 1985. The treaty text, along with two protocols and two memoranda of understanding, was signed by the parties on December 8, 1987, and the treaty came into force on June 1, 1988.

The full name of the treaty is the "Treaty between the U.S. and the U.S.S.R. on the Elimination of their Intermediate-Range and Shorter-Range Missiles," Shorter-range missiles are defined in the treaty as ground launched ballistic or cruise missiles with a range of between 500 kilometers and 1000 kilometers. Intermediate-range missiles are defined as ground launched ballistic or cruise missiles with a range between 1000 kilometers and 5500 kilometers. The treaty does not address missiles launched by submarine or aircraft.

The INF treaty required both parties to eliminate and permanently destroy their stockpiles of both conventional and nuclear shorter-range and intermediate-range missiles, possessed anywhere

weapon delivery systems.

Unfortunately, due to the Soviet invasion of Afghanistan in December 1979, U.S. President Carter withdrew SALT II from the U.S. Senate process of providing advice and consent to the treaty. Therefore it was never ratified by the U.S. and did not come into legal effect. However, both parties agreed informally to abide by the limitations on strategic arms set in SALT II, and did so until 1986. The invasion of Afghanistan by the U.S.S.R. brought the era of détente arms control treatymaking to an abrupt end.

in the world. The INF is significant as the first nuclear arms control treaty that eliminated an entire class of nuclear weapons. Pursuant to the INF's terms, the U.S. and U.S.S.R. destroyed a total of 2,692 covered missiles over the three-year implementation period.

The INF is also significant as the first nuclear arms control treaty that allowed on-site inspections by each party of the missile stockpiles and missile destruction facilities of the other party, in order to verify compliance. Pursuant to Article XI of the text of the treaty and two attached protocols on elimination of covered weapons and on inspections, within the first 90 days of the treaty's implementation, each side would be allowed to inspect the missile bases and elimination facilities of the other party in order to verify the baseline numbers of covered missiles in their stockpile. Then, over the first thirteen-year period of the treaty's implementation, each side had the right to conduct inspections at these same facilities in order to verify the destruction of covered missiles. For the first thee years of implementation, each side could conduct twenty such inspections per year. For a further five years each side could conduct 15 inspections per year, and for a final five years each side could conduct ten inspections per year. The protocol on inspections provided highly detailed agreed procedures for conducting inspections under the treaty. These inspections could be complemented through the continuing use of national technical means of monitoring, and any disputes or questions concerning compliance could be referred to a Special Verification Commission, established in Article XIII.

The implementation of the INF treaty's terms was an important means of defusing nuclear tension, particularly in Europe, and preserving strategic stability between the U.S. and the U.S.S.R, both at the end of the Cold War, and then through the tumultuous early post-Cold War period.

By the mid-2000's, some frustration with the treaty was expressed on both sides, with Russia concerned about its inability to field short and intermediate range weapons in response to those of China, along its southeastern border.[13] In July 2014 the U.S. alleged that Russia was in noncompliance with the INF due to its testing of a prohibited intermediate range cruise missile. Russia denied this charge. Russia responded with allegations that U.S. ground based ballistic missile

13. *The Intermediate Range Nuclear Forces Treaty (INF) At a Glance*, Arms Control Association (August 2019).

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interceptor systems in Eastern Europe were capable of launching cruise missiles within the prohibited range of the INF, and that the installations were therefore unlawful.[14] Allegations of noncompliance by both sides continued over the next four years, and several sessions of the Special Verification Commission were convened to address them.[15] Finally, on October 20, 2018, U.S. President Trump announced that the U.S. would withdraw from the INF. The withdrawal took place on August 2, 2019, effectively terminating the treaty.

3. START I

Negotiations on a successor treaty to SALT I which would progress the bilateral agenda of reductions in the strategic nuclear weapons stockpiles of the superpowers began in 1982, when it is estimated that the U.S. possessed a total of 22,886 nuclear warheads and the Soviet Union possessed 33,952. The negotiation and coming into force of the new Strategic Arms Reduction Treaty (START I) and its successors marked the beginning of a period of steep reductions in the nuclear weapons stockpiles of the superpowers. This period coincided with the final years of the Cold War, and the post-Cold War decades. The last of these successor treaties, is the New START treaty which, as noted above, is scheduled to terminate in 2026. These treaties are noteworthy for placing limits on deployed nuclear warheads themselves, and not just on delivery systems as had been the case with SALT I and the INF.

The START I treaty text, along with two attached annexes, six attached protocols, and one attached memorandum of understanding, was signed on July 31, 1991 in Moscow. It entered into force on December 5, 1994. In the preamble the parties state their conviction that "the measures for the reduction and limitation of strategic offensive arms and the other obligations set forth in this Treaty will help to reduce the risk of outbreak of nuclear war and strengthen international peace and security." They further recognize "that the interests of the Parties and the interests of international security require the strengthening of

14. Theodore Postol, *Russia May have Violated the INF Treaty. Here's How the United States Appears to have Done the Same*, Bull. of the Atomic Scientists (Feb.y 14, 2019).

15. 2018 Report on Adherence to and Compliance With Arms Control, Nonproliferation, and Disarmament Agreements and Commitments, United States Department of State.

strategic stability."

The basic obligations of START I are as follows. The parties agree to limit their nuclear arsenals to no more than 1600 deployed ICBMs, SLBMs, and heavy bombers. They further agree to limit the number of warheads attributed to these delivery systems to a total of 6,000. These reductions were to be achieved within a seven-year phased implementation period, and maintained throughout the rest of the treaty's fifteen-year duration. The treaty text includes precise and sophisticated counting provisions for both delivery systems and warheads, and names the covered systems on both sides.

The treaty text is accompanied by six protocols:

- a protocol on conversion and elimination of covered delivery systems in excess of agreed limits,
- a detailed protocol on verification inspections,
- a protocol on notifications including notification when covered systems are moved or tested,
- a throw-weight protocol detailing limits on the payload capacity of covered missiles,
- a protocol requiring the mutual sharing of telemetric information on tests of covered systems, and
- a protocol creating a Joint Compliance and Inspection Commission.

START I contained the most comprehensive and intrusive transparency and verification regime of any arms control treaty to that time. In addition to allowing constant monitoring by national technical means of verification (satellites, telemetry information, etc.), the treaty provides for frequent data exchange, notifications of location and movement of covered systems, and both planned and short notice on-site inspections including a special regime for mobile ICBM launchers. During the seven-year phased implementation period the United States conducted 335 inspections pursuant to the treaty's terms, while Russia conducted 243.[16]

For the fifteen-year period between 1994 and 2009, START I was the primary basis for nuclear arms control between the U.S. and Russia, and was arguably the most important and effective treaty for facilitating

16. START I Factsheet, Nuclear Threat Initiative (www.nti.org)

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decrease in the nuclear weapons stockpiles of the parties in history. By the end of START I's fifteen-year duration, the number of nuclear warheads possessed by the United States had fallen to 5,113, and those possessed by Russia had fallen to 13,000.

4. SORT

On May 24, 2002 Presidents George W. Bush and Vladimir Putin signed the Strategic Offensive Reductions Treaty (SORT), also known as the Moscow Treaty.[17] By this point, more than ten years following the end of the Cold War, and with the START I treaty's limitations already in place, President Bush reportedly did not think a new nuclear arms control treaty was necessary.[18] Furthermore, with the September 11, 2001 terror attacks having turned the attention of the United States, and much of the world, toward the War on Terror and the horizontal proliferation of weapons of mass destruction to states and non-state actors of concern—a marriage of concerns that would define much of the next fifteen years of U.S. foreign policy—nuclear arms control with Russia was accorded a much lower priority than it had been given a decade before.

Article I of the Moscow Treaty obligates both parties to reduce their deployed strategic nuclear warheads to 1700-2200. It further provides that each party "shall determine for itself the composition and structure of its strategic offensive arms, based on the established aggregate limit for the number of such warheads." There are no provisions in the treaty for counting protocols, no definitions or stipulations of warheads or

17. Two major efforts were made at concluding additional nuclear arms control treaties in the 1990's, though neither produced a treaty which entered into force. The START II treaty was signed by The U.S. and Russia in January 1993 and would have obligated both parties to reduce their deployed strategic nuclear weapons to 3,000-3,500. It would further have required the elimination of MIRV payloads for ICBMs. The treaty was ratified both by the U.S. Congress and the Russian Douma, but it never came into effect because of disagreements regarding an attached protocol and amendments to the ABM treaty that were made a condition of ratification by Russia. Since START II never entered into force, preliminary negotiations on a START III framework never progressed to a signed treaty text. The START III framework was to include a reduction in deployed warheads by both sides to 2,000-2,500, and would have provided for the first time for the actual destruction of strategic nuclear warheads.

18. SORT Factsheet, Nuclear Threat Initiative (www.nti.org)

delivery systems covered, and the only reference to verification is the agreement to convene at least once per year a Bilateral Implementation Commission. It is important to recall, for the sake of context, that START I with its detailed and thorough definitions and verification protocols was still in force at the time, and would be for another seven years. This likely, in addition to the other distractions and changes in interest at the time, accounts for the paucity of provisions in SORT. SORT entered into force on June 1, 2003.

5. New START

Negotiations for a successor treaty to START I, and a replacement of SORT, began in April 2009 by newly elected U.S. President Barack Obama and Russian President Dimitry Medvedev. The treaty, known in arms control vernacular as the New START treaty, was signed on April 8, 2010 and came into force on February 5, 2011.

New START marked a return to serious and detailed nuclear arms control treatymaking. It consists of a seventeen-page primary treaty text, along with a 165-page protocol containing definitions and verification provisions very similar to those of START I, and three annexes on inspection activities, notifications, and telemetric information sharing, respectively. The preamble of New START recites *inter alia* the following purposes of the parties:

> Seeking to preserve continuity in, and provide new impetus to, the step-by-step process of reducing and limiting nuclear arms while maintaining the safety and security of their nuclear arsenals, and with a view to expanding this process in the future, including to a multilateral approach,
>
> Guided by the principle of indivisible security and convinced that measures for the reduction and limitation of strategic offensive arms and the other obligations set forth in this Treaty will enhance predictability and stability, and thus the security of both Parties.

Articles I & II of the treaty provide that, by the end of a seven-year implementation period, the parties will reduce their deployed strategic nuclear weapons to a number no higher than 1,550 each. It further

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provides that deployed ICBMs, SLBMs, and nuclear tasked heavy bombers be limited to 700 for both sides, and that deployed and non-deployed ICBM and SLBM launchers and heavy bombers be limited to 800 for both sides. This cap of 800 applicable to non-deployed launchers and bombers was intended to prevent either side from quickly deploying a large number of non-deployed delivery means.[19]

New START's counting rules and identifications of covered systems are as detailed as those of START I. Its monitoring and verification regime is also very similar to START I in that it provides for the same kinds of mutual monitoring through information exchange and notifications, national technical means of observation, and on-site inspections. The treaty provides each party the right to carry out eighteen short-notice, on-site inspections of deployed and non-deployed covered systems to verify compliance with treaty limits. It further creates a Bilateral Consultative Commission, similar to START I's, where issues of information sharing and compliance can be discussed by the parties.

New START was signed on April 8, 2010 and came into force on February 5, 2011. Article XIV provides that the treaty will be in effect for ten years, expiring by its terms on February 5, 2021. However, Article XIV goes on to provide that:

> If either Party raises the issue of extension of this Treaty, the Parties shall jointly consider the matter. If the Parties decide to extend this Treaty, it will be extended for a period of no more than five years unless it is superseded earlier by a subsequent agreement on the reduction and limitation of strategic offensive arms.

Thus, New START could be extended by five years through simple exchange of declarations between the parties. This exchange occurred on February 3, 2021. New START therefore continues to be in force until its scheduled expiry on February 4, 2026. However, in January 2023 the U.S. for the first time formally accused Russia of being in violation of New START. And in February 2023 Russia announced that it had suspended its participation in the treaty.

19. New START at a Glance, Arms Control Association Factsheet, www.armscontrol.org

6. *Current Political, Strategic, and Technological Climate Surrounding Arms Control Treaties*

As I noted in the Introduction, nuclear arms control efforts are currently at a historic moment of crisis. There are a number of political, strategic, and technological reasons that explain how arms control law has come to this moment. Space in this article will not permit a thorough discussion of this history, though others have provided it fulsomely.[20] However, some of these factors include

- Changing threat perceptions in the decades following the end of the Cold War, including the economic and military rise of China, and Russian aggression in Ukraine;
- The nuclear stockpile modernization efforts undertaken over the past decade by the U.S. and Russia that have included re-tasking of existing nuclear weapons systems to new military purposes;
- Dynamic technological developments that have produced new varieties of tactical nuclear weapons, and emerging technologies like hypersonic delivery platforms and artificial intelligence, the applications of which in the nuclear weapons context are still not fully understood;
- Anti-arms control sentiment in the U.S. Trump administration, producing U.S. withdrawal from the INF treaty, and efforts to field a new low-yield SLCM.

I will return to a consideration of the current crisis moment of arms control law later in this article.

B. Nonproliferation Obligations

I will now proceed to the second category of nuclear weapons related international legal obligations in my trifurcated taxonomy - that of nonproliferation obligations. I will spend considerably less time on a description of the development and substance of nuclear nonproliferation obligations than I have spent on arms control obligations, or than I will spend on disarmament obligations. This is because nonproliferation obligations are more remote to the central

20. *See* Michael Krepon, Winning and Losing the Nuclear Peace: The Rise, Demise, and Revival of Arms Control (2022).

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analysis and thesis of this article, and because space here is limited. But for the sake of thoroughness it is necessary to briefly review them.[21]

Nuclear nonproliferation obligations are to be found primarily in the 1968 Treaty on the Nonproliferation of Nuclear Weapons (NPT). The NPT was agreed at the height of the Cold War at the initiative of the two superpowers. Its nonproliferation obligations in Articles I-III were purposed in stopping the further horizontal proliferation of nuclear weapons (i.e. the acquisition of nuclear weapons by more states than already had them at the time), as this prospect was seen as potentially destabilizing to the carefully maintained strategic relationship between the U.S. and the Soviet Union.

Under the NPT's provisions, the five states which had already tested nuclear weapons, referred to in the treaty as the Nuclear Weapon State (NWS) parties, obligate themselves not to transfer nuclear weapons to any recipient, nor to assist any non-nuclear weapon state to acquire nuclear weapons. The Non-nuclear Weapon State (NNWS) parties to the NPT (NNWS) complementarily obligate themselves never to acquire or manufacture nuclear weapons. The obligations contained in the NPT are often characterized as comprising a Grand Bargain, in which the NNWS parties agreed to forego their liberty to acquire nuclear weapons, in exchange for the right recognized and obligation created in Article IV of the treaty related to peaceful nuclear energy, in addition to the obligation created on all NPT parties, but of particular relevance to the NWS parties, in Article VI of the NPT to move toward nuclear disarmament in good faith. I will return to a consideration of Article VI of the NPT in the next section, however it is noteworthy at this point to observe that the NPT contains both nonproliferation obligations in Articles I-III, as well as disarmament obligations in Article VI.

The monitoring and verification obligations in the NPT found in Article III require all NNWS parties to conclude an additional safeguards treaty with the International Atomic Energy Agency (IAEA). This safeguards agreement provides the IAEA with authority and access to conduct monitoring activities on all nuclear materials and at all nuclear facilities within the territory of the NNWS, for the purpose of verifying that no nuclear material within the country is diverted from peaceful

21. *See, e.g.,* Daniel H. Joyner, Interpreting the Nuclear Nonproliferation Treaty (2011).

to military uses. These safeguards treaties are important sources of nonproliferation obligations, in addition to the NPT itself.

Also in addition to the NPT, in the nonproliferation obligations category, should be briefly mentioned both nuclear weapon free zone (NWFZ) treaties and nuclear testing treaties. Like the NPT, all of these treaties have obligations built into them that can be characterized as falling into multiple categories of the tripartite nuclear weapons law taxonomy that I am employing herein. But since they are home to the most important nuclear weapon nonproliferation obligations, I will include them, along with the NPT, in the nonproliferation category of the taxonomy.[22]

The five existing NWFZ treaties are:

- The 1967 Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (The Treaty of Tlatelolco, currently with 33 states parties)
- The 1985 South Pacific Nuclear Free Zone Treaty (The Treaty of Rarotonga, currently with 13 state parties)
- The 1995 Treaty on the Southeast Asia Nuclear Weapon-Free Zone (The Treaty of Bangkok, currently with 10 states parties)
- The 1996 African Nuclear-Weapon-Free Zone Treaty (The Treaty of Pelindaba, currently with 40 states parties)
- The 2006 Treaty on a Nuclear-Weapon-Free Zone in Central Asia (The treaty of Semipalatinsk, currently with five states parties)

The five NWFZ treaties contain differences among themselves, but the aim of each is to tailor obligations among the states in a particular region to their own design for the purpose of restating and reemphasizing, and in some cases extending, the obligations of non-possession of nuclear weapons contained in Article II of the NPT, and obligations of nonproliferation of nuclear weapons through trade contained in Article III of the NPT. With the exception of the Treaty of Pelindaba, NWFZ treaties do not conceive of states that currently possess nuclear weapons becoming parties to them and phasing out their nuclear weapons stockpiles. The preambles of the NWFZ treaties cite

22. This inclusion is without prejudice to, and in harmony with, my previous writings about the interpretation of the NPT itself, and how that interpretation should be informed by all three objects and purposes of the NPT, i.e. nonproliferation, peaceful use, and disarmament. *See Id.*

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their purposes variously, but typically include purposes in progressing nonproliferation of nuclear weapons, contributing to general and complete nuclear disarmament, and protecting their region both from nuclear warfare among themselves, and from nuclear targeting by other states. Four of the NWFZ treaties—Tlatelolco, Raratonga, Bangkok, and Pelindaba—explicitly cite in their preamble that the creation of a NWFZ is at least partially purposed in contributing to global disarmament efforts. The five NWFZ treaties were important reference and inspiration sources for the framers of the text of the TPNW.

Finally, the two major multilateral treaties on the testing of nuclear weapons can also be seen to straddle the three categories of arms control, nonproliferation, and disarmament, and to make an important contribution to each purpose. Because testing is an essential step in developing nuclear weapons capabilities, obligations preventing nuclear explosives testing are purposed in both preventing the initial acquisition of nuclear weapons by states that have yet to acquire them, as well as limiting the further acquisition and development of nuclear weapons stockpiles by nuclear weapons possessing states. The 1963 Treaty Banning Nuclear Weapons Tests in the Atmosphere, in Outer Space, and Under Water (The Partial Test Ban Treaty, or PTBT), prohibited as among its parties the testing of nuclear weapons anywhere except underground. 125 states, including the U.S. and Russia are parties to the treaty. Because of the PTBT's lack of an independent monitoring and verification mechanism, and with a desire to extend the prohibition on testing to include underground testing, the Comprehensive Nuclear Test Ban Treaty (CTBT) was negotiated beginning in 1994, and was adopted by the United Nations General Assembly and opened for signature in 1996. The CTBT does provide for a robust monitoring and verification regime, administered by a special purpose international organization created by the treaty, the Comprehensive Test Ban Treaty Organization (CTBTO). However, the CTBT text in Article XIV provides that the treaty will only come into force upon the ratification of all 44 states listed in Annex 2 to the treaty. Of these 44 states, eight, including the U.S., have yet to ratify the treaty. Therefore the CTBT has yet to come into force.

C. Disarmament Obligations

The third category of nuclear weapons related obligations in the trifurcated taxonomy I am employing in this article is that of disarmament obligations. This, as I have already noted, will be the category in which the TPNW's nuclear weapons reduction obligations will be most accurately placed. But to understand why this is the correct categorization of the TPNW, and the implications that categorization has both for the TPNW and for efforts to progress particularly the arms control obligations category, I will need to explain the concept of nuclear disarmament, as well as the history of the legal sources of nuclear disarmament obligations.

Nuclear disarmament obligations are conceptually and analytically distinguishable from nuclear arms control obligations and from nonproliferation obligations, in that they focus on those states parties that already possess nuclear weapons, and have as their explicit goal and purpose the total elimination of nuclear weapons from the possession of states who are party to those obligations. While arms control obligations are purposed in restricting amounts and types of nuclear weapons and delivery systems to levels agreed between the parties for purposes of maintaining strategic stability, and nonproliferation obligations are purposed in preventing the further horizontal spread of nuclear weapons to additional states and non-state actors, disarmament obligations are purposed in the total elimination of nuclear weapons as among the states parties to the disarmament obligation.

When compared particularly to arms control obligations, disarmament obligations both conceptually and legally represent a more comprehensive, long-term, and aspirational set of commitments, typically with little specification of covered weapons technologies other than absolutist claims of scope, and few if any provisions for verification. Arms control agreements, as we have seen, by contrast typically incorporate carefully negotiated, highly specified commitments, including excruciatingly detailed recitations of covered weapons technologies, exacting short-to-medium-term schedules for implementation, and intrusive verification mechanisms.[23]

23. While this is a descriptively accurate statement regarding differences between arms control obligations and disarmament obligations contained in past and present nuclear weapons related treaties, it should be noted that there is nothing inherent in the concept of nuclear disarmament that does not

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Nuclear disarmament obligations are to be found in a number of both regional and multilateral treaties. As I noted above, with the exception of the Treaty of Pelindaba, the regional NWFZ treaties do not explicitly conceive of states that currently possess nuclear weapons becoming parties to them and phasing out their nuclear weapons stockpile. However, four of the NWFZ treaties – Tlatelolco, Raratonga, Bangkok, and Pelindaba – do explicitly state in their preambles that the creation of the current NWFZ is at least partially purposed in contributing to global disarmament efforts. Similarly, both the PTBT and the CTBT testing treaties in their preambular paragraphs conceive of the discrete obligations contained in each treaty as being a part of the larger project of nuclear disarmament.

1. NPT Article VI

However, by far the most explicit and important nuclear disarmament obligation is to be found in Article VI of the NPT. As I explained in my book *Interpreting the Nuclear Nonproliferation Treaty*, and as both the text and the negotiating history of the NPT bear out, the NPT codified a grand bargain between NWS parties and NNWS parties, in which the nonproliferation obligations found in Articles I, II, and III of the treaty were structured as a *quid pro quo* in exchange for the rights and obligations found in Article IV of the treaty relative to peaceful nuclear energy, and the disarmament obligations found in Article VI. The text of Article VI of the NPT provides:

> Each of the Parties to the Treaty undertakes to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament under strict and effective international control.

A great deal has been written on interpretation of this rather succinct provision. Applying the rules on treaty interpretation found in Articles 31 and 32 of the Vienna Convention on the Law of Treaties, I have argued that NPT Article VI should be understood to contain *inter*

lend itself to regulation or achievement through highly specified obligations, including definitive schedules and robust verification mechanisms. Such is the case, for example, in the area of chemical weapons disarmament and its regulation by the 1993 Chemical Weapons Convention.

alia an individual legal obligation binding upon each NPT party, to proactively, diligently, sincerely and consistently pursue meaningful negotiations on effective measures relating to the complete elimination of nuclear weapons from national arsenals, or at the least to effective measures which are part of a policy program whose stated object is the complete elimination of nuclear weapons from national arsenals, through progressive programmatic steps.[24] To paraphrase in summary, each NPT party is obligated by Article VI to move toward complete nuclear disarmament in good faith.

This interpretation falls somewhere in between the maximalist interpretation of Article VI that has been adopted by the International Court of Justice (ICJ), on the one hand, and minimalist interpretations of the legal scope and meaning of Article VI that have been issued by states, and particularly the United States, on the other.

Although not central to the question put to the ICJ by the U.N. General Assembly in the context of its 1996 *Advisory Opinion on the Threat or Use of Nuclear Weapons*, toward the end of its opinion the court found it germane to address the question of the meaning of the disarmament obligation in Article VI of the NPT. As the court states,

> The legal import of that obligation goes beyond that of a mere obligation of conduct; the obligation involved here is an obligation to achieve a precise result—nuclear disarmament in all its aspects—by adopting a particular course of conduct, namely, the pursuit of negotiations on the matter in good faith.[25]

In the court's view, the pursuit of negotiations on nuclear disarmament in good faith by the parties to the NPT should inevitably produce the result not merely of an agreement to disarm, but additionally the result of disarmament itself. And the achievement of both of these results, it found, are part and parcel of the obligation contained in Article VI for all NPT parties. It is noteworthy that in its treatment of the interpretation of NPT Article VI in its advisory opinion, the ICJ uses quite comprehensive and absolutist language, with no specificity regarding the weapons technologies or schedule for completion entailed

24. Joyner, *supra* note 21, at 103-04.

25. ICJ Reports, 1996, at 26 para. 99.

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by the Article VI obligation. This absolutism and comprehensivity as well as this indefiniteness are, as previously noted, hallmarks of disarmament-related legal language.

On the other end of the spectrum of NPT Article VI interpretation are statements made by officials particularly of NWS parties to the NPT, and most notably by representatives of the United States. In 2007, then U.S. Special Representative for Nuclear Nonproliferation Christopher Ford offered the following critique of the ICJ's advisory opinion, and his own interpretation of NPT Article VI:

> The negotiating history makes quite clear that the plain language of Article VI is no accident and that its meaning is precise: all states party are required to pursue good faith negotiations toward the article's stated goals, but they are not legally required—and could not reasonably *be* legally required—to conclude such negotiations. Arguments that Article VI should require concrete disarmament steps of the nuclear weapon states, and efforts to enumerate specific mandatory steps, were rejected.[26]

I have critiqued Ford's interpretation more fulsomely elsewhere.[27] Here I will simply say that one of the chief problems with Ford's assertions is that neither the United States, nor any of the NPT NWS, have ever negotiated, in good faith or otherwise, on effective measures relating to nuclear disarmament. The U.S. and the U.S.S.R./Russia have certainly expended a great deal of efforts successfully negotiating and implementing effective measures related to nuclear arms control, as previously reviewed. But nuclear disarmament means something quite different. It means going to zero, or at least agreeing to a plan to go to zero. And while U.S. and other NPT NWS position papers and statements will sometimes mention nuclear disarmament as a goal, no serious negotiations by any NPT NWS have focused on, or even proposed agreement of, effective measures purposed specifically on achieving the result of zero nuclear weapons in their stockpiles. It has been quite a common trope particularly in U.S. statements to NPT

26. Christopher A. Ford, *Debating Disarmament: Interpreting Article VI of the Treaty on the Non-Proliferation of Nuclear Weapons*, 14 NON-PROLIFERATION REV. 403 & 411 (Nov. 2007).

27. Joyner, *supra* note 21, at 69-74, 95-108.

Review Conferences to disingenuously blur the concepts of nuclear arms control and nuclear disarmament, by arguing that deep cuts to the U.S. nuclear stockpile achieved through arms control agreements with the U.S.S.R./Russia additionally evidence compliance with the U.S. disarmament obligation in NPT Article VI. Such arguments are intentionally obfuscatory. None of the nuclear arms control agreements concluded between the U.S. and the U.S.S.R./Russia state a purpose, or provide a mechanism, for reducing either party's nuclear weapons stockpile to zero. And the nuclear modernization programs on which both countries have embarked in recent years, mentioned previously, amply belie any policy of moving towards nuclear disarmament. The same can be said of China's recent focus on quantitative and qualitative upgrades to its nuclear arsenal.

Again, my own interpretation of NPT Article VI falls somewhere in between the interpretation of the ICJ and the interpretation of the U.S. This interpretation has been refined and given flesh by the NPT conference of states parties through a number of final documents adopted by consensus of the parties at the conclusion of NPT Review Conferences, which the treaty mandates to occur once every five years. These consensus final documents are relevant to interpretation of the NPT pursuant to VCLT Article 31(3)(a) as "subsequent agreement[s] between the parties regarding the interpretation of the treaty or the application of its provisions." Among other things, they confirm the understanding that the Article VI nuclear disarmament obligation, unlike nuclear arms control obligations, references the complete elimination of nuclear weapons from national stockpiles. The final document of the 2010 NPT review conference, for example, states *inter alia*:

> The Conference reaffirms the unequivocal undertaking of the nuclear-weapon States to accomplish the total elimination of their nuclear arsenals leading to nuclear disarmament, to which all States parties are committed under Article VI.[28]

Applying this more substantive and definite understanding of the scope and meaning of NPT Article VI, NNWS parties to the NPT have frequently responded to NWS obfuscation on their disarmament record, by criticizing that record in NPT conference meetings. Representing the 118 member states of the Non-Aligned Movement

28. Principles and Objectives I(A)ii, at 19.

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(NAM), Indonesia's statement to the 2008 NPT preparatory committee meeting (PrepCom) lamented:

> It is most unfortunate that the NWS and those remaining outside the NPT continue to develop and modernize their nuclear arsenals, imperiling regional and international peace and security, in particular in the Middle East. The recent developments, in this regard, illustrate a trend of vertical proliferation and non-compliance by NWS towards their commitments under Article VI of the NPT.[29]

Such argument between representatives of the NWS and representatives of groups of NNWS regarding NWS compliance with their NPT Article VI obligations, have become staples of NPT preparatory and review conference meetings. They have been a source of significant and longstanding frustration to many states parties who have argued that the NWS have marginalized their disarmament obligations, while disproportionately prioritizing attacks against other states for alleged violations of nonproliferation obligations contained elsewhere in the NPT. A classic statement of this position comes from Malaysia in its address to the 2005 RevCon, as representative of the over 100 states members of the NAM:

> The NPT is at crossroads, with its future uncertain. The historic compromise reached 37 years ago between nuclear-weapon States and non-nuclear-weapon States over disarmament, proliferation and peaceful uses of nuclear technology remains unfulfilled. Today as we meet, the stress is on proliferation, rather than disarmament in good faith. The lack of balance in the implementation of the NPT threatens to unravel the NPT regime, a critical component of the global disarmament framework. . . . I wish to call upon all States Parties, nuclear-weapon States and non-nuclear-weapon States, to recognize the importance of the full and non-selective implementation of the Treaty in nuclear disarmament, non-proliferation and the peaceful uses

29. Statement by H.E. Gusti Agung Wesaka Puja, Ambassador of the Republic of Indonesia, on Behalf of the on Behalf of the Group of Non-Aligned States Parties to the Treaty on the Non-proliferation of Nuclear Weapons, at the General Debate of the Second Session of the Preparatory Committee for the 2010 Review Conference of the States Parties to the Treaty on the Non-proliferation of Nuclear Weapons. April 28, 2008.

of nuclear technology—the three pillars of the Treaty.[30]

This frustration has been long simmering, and produced both the 1996 nuclear weapons advisory opinion by the ICJ, referenced earlier, as well as the later *Marshall Islands cases* before the ICJ. In 2014, the Marshall Islands brought separate contentious cases against all nine states who possess nuclear weapons (i.e. the five NPT NWS plus India, Pakistan, Israel, and North Korea). The Marshall Islands argued that each respondent state was in violation of the disarmament obligation contained in NPT Article VI, or alternatively in the cases of the non-parties to the NPT, of the same principle as established in parallel customary law. All nine cases were ultimately dismissed by the ICJ on jurisdictional grounds, and none moved on to consider the merits of the Marshall Islands' NPT related claims. However, the cases were representative of the view, long held by many NPT NNWS, that the NPT NWS in particular have been in longstanding noncompliance with their Article VI obligation.

D. Taxonomy Observations

At this point I would like to recap some key observations based upon the foregoing review of the tripartite taxonomy of international legal obligations related to nuclear weapons that I have employed herein.

The first such observation is that arms control obligations, nonproliferation obligations, and disarmament obligations each have different purposes and roles that are conceptually and analytically distinguishable from one another. While arms control obligations are purposed in restricting amounts and types of nuclear weapons and delivery systems to levels agreed between the parties for purposes of maintaining strategic stability, and nonproliferation obligations are purposed in preventing the further horizontal spread of nuclear weapons to additional states and non-state actors, disarmament obligations are purposed in achieving the total elimination of nuclear weapons as among the states parties to them.

The second observation is that while the purposes and roles of

30. Statement by the Hon. Syed Hamid Albar, Minister of Foreign Affairs of Malaysia, on Behalf of the Group of Non-Aligned States Parties to the Treaty on the Non-proliferation of Nuclear Weapons, at the General Debate of the 2005 Review Conference of the parties to the Treaty on the Non-proliferation of Nuclear Weapons, New York, May 2, 2005.

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these different categories of obligations are overall complementary to each other, in the sense that they are all in harmony with the notion of minimizing the dangers inherent in nuclear weapons possession and use, nevertheless *they are distinct and exist in international legal sources simultaneously and in parallel with each other.* Contrary to the arguments of some states, none of these categories of obligations constitute a lesser included subset within the broader set of another category of obligations. They are independent sets of obligations in purpose and in role, as well as in scope, history, and current state of development. Each category's purposes are important, and the obligations within each category were designed to play a role conceptually and analytically distinct from the role designed to be played by the other categories of obligations.[31]

Third, specifically with regard to a comparison of arms control obligations on the one hand, and disarmament obligations on the other, the cornerstone multilateral disarmament obligation in NPT Article VI resulted from a singular and unique moment in which a grand bargain was being struck between nuclear armed and non-nuclear-armed states. It was an obligation wrung grudgingly from nuclear armed states as part of that negotiation, as an element of a *quid pro quo* deal. It was meant as a counterbalance to the proprietary right accorded to nuclear weapon states in the nonproliferation provisions of the treaty, and as a statement that the haves and haves-not reality of those provisions would not be of indefinite duration. Thus, it is a provision which lays out a sequence of obligations, generally and absolutely worded, that are aimed at achieving that long term end. Arms control obligations, by contrast, are contained in a series of treaties entered into bilaterally by the U.S.S.R./Russia and the U.S. These obligations are discretely defined in scope, and exquisitely specified in terms of controlled technologies, schedule of commitments, and verification measures. These commitments are short-to-medium-term in maturity, and definite. They were designed as part of a systematic approach to the discrete historical problem of an uncontrolled nuclear arms race

31. It is possible that in practice a program of arms control can achieve reductions that subsequently can be seen to have contributed to a revised program of disarmament. If at some point the nuclear weapons policies of the U.S. and/or Russia are revised to embrace disarmament as a formal and meaningful goal, the reductions in nuclear weapon stockpiles achieved through implementation of nuclear arms control treaties could be seen in this way.

between their parties, and built sequentially upon each other. There is no significant overlap or continuity between the negotiating history, substance, or purposes of NPT Article VI on the one hand, and treaties incorporating arms control obligations on the other.

II. THE TPNW

Finally, then, I will now proceed to briefly describe the TPNW and to locate its nuclear weapons obligations within the established taxonomy, and then consider the implications of this contextualization.

I would like to note at the start of this discussion that the development of what has come to be known as the "humanitarian initiative," and the role of a broad and diverse coalition of international civil society groups in fostering it and in using it to build the political momentum necessary to produce the TPNW conference in 2017, is a fascinating and multi-faceted narrative. Others have recorded that narrative more fulsomely and faithfully than I am able to within the confines of what I am primarily trying to accomplish in this article, which again is providing the legal and chronological context for the TPNW, and examining the implications of that context for understandings about the treaty and its role now and going forward.[32] I will therefore not attempt to describe the history of the coming into being of the TPNW, other than to say that the frustration many states felt for years with the ossified state of diplomacy on disarmament within the NPT framework, was a primary driver of efforts to create a new normative instrument, and an additional diplomatic framework outside of the NPT, on which to base further progress in nuclear disarmament.

After the 2015 NPT RevCon ended in May 2015 without producing a consensus final document, the focus of the humanitarian initiative movement turned to the meeting of the First Committee of the U.N. General Assembly which took place in October, 2015. There, by a vote of 138 states in favor, 12 against, and 34 abstaining, an open-ended working group was established with the extraordinary mandate to "recommend effective measures on nuclear disarmament, including legal provisions . . . for the achievement and maintenance of a world

32. *See particularly* Alexander Kmentt, The Treaty Prohibiting Nuclear Weapons: How It was Achieved and Why It Matters (2021).

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without nuclear weapons." Upon the submission of the working group's report to the First Committee, the U.N. General Assembly on December 23, 2016 adopted Resolution 71/258, in which it decided "to convene in 2017 a United Nations conference to negotiate a legally binding instrument to prohibit nuclear weapons, leading towards their total elimination." The treaty negotiating conference began its work in March, 2017, and continued through the Summer, producing two draft texts of the TPNW before the final text was approved by a United Nations treaty conference on July 7, 2017 by the affirmative vote of 122 participating states. The TPNW entered into force by its terms on January 22, 2021, and at the time of this writing has 66 states parties.

As the preamble of the TPNW makes clear, the treaty's focus is on the unacceptability under international humanitarian law of any use of nuclear weapons. Its aims, therefore, are to create obligations among its parties to redress the harm to human victims, and environmental damage, produced by previous nuclear explosives use and testing, and to create going forward "a legally binding prohibition of nuclear weapons constitut[ing] an important contribution towards the achievement and maintenance of a world free of nuclear weapons, including the irreversible, verifiable and transparent elimination of nuclear weapons . . ." The preamble further notes the treaty parties' concern at the current "slow pace of nuclear disarmament," and cites to the language of NPT Article VI on both nuclear disarmament and general and complete disarmament.

Article 1 of the TPNW is a broad statement of obligation that parties will never develop, test, acquire, possess, spread, use, threaten to use or help others to acquire nuclear weapons, or allow the stationing of nuclear weapons on their territory. These obligations, and the safeguards contained in Article 3 of the TPNW are essentially nonproliferation obligations, in the vein of, and mostly redundant of, NPT Articles II and III, and of similar obligations in NWFZ treaties and testing treaties.[33]

However the heart of the TPNW, and its real addition to the corpus of international nuclear weapons related obligations, is to be found in Articles 2 and 4 on declaration of status and total elimination of existing stockpiles of nuclear weapons, and in Articles 6 and 7 on

33. Article I of the TPNW does, however, importantly include prohibitions on stationing and testing that the NPT did not include.

victim assistance and environmental remediation, and on international cooperation and assistance. Again, these are obligations aimed at redressing the historical wrongs produced by nuclear explosive use, and at creating a forward looking expansion of the scope and number of states parties that either have never possessed nuclear weapons, or having possessed them commit themselves to complete disarmament under the treaty's terms.

Within the trifurcated taxonomy employed herein, the TPNW can be accurately characterized as possessing both nonproliferation obligations and disarmament obligations. Its disarmament obligations are firmly in the vein of NPT Article VI, obligating states parties to eliminate completely their stockpiles of nuclear weapons. As the TPNW parties declared at their first Meeting of States Parties in June 2022:

> We are pleased to have advanced the implementation of the NPT's Article VI by bringing into force a comprehensive legal prohibition of nuclear weapons, as a necessary and effective measure related to the cessation of the nuclear arms race and to nuclear disarmament.

Articles 2 and 4 of the TPNW lay out a mechanism by which a state that already possesses nuclear weapons can become a party to the TPNW and, working under the supervision of a "competent international authority" as a compliance monitoring agency, achieve the "irreversible elimination of its nuclear-weapon program." Article 4 provides more detail than NPT Article VI on the subject of the procedural sequencing of disarmament under its provisions, although in keeping with disarmament obligation tradition, these terms are still comprehensive and absolute, and are lacking in specificity with regard to weapons systems covered, timeframe of commitments, and verification protocols. Article 4(2) provides in pertinent part:

> [E]ach State Party that owns, possesses or controls nuclear weapons or other nuclear explosive devices shall immediately remove them from operational status, and destroy them as soon as possible but not later than a deadline to be determined by the first meeting of States Parties, in accordance with a legally binding, time-bound plan for the verified and irreversible elimination of that State Party's nuclear-weapon programme, including the elimination or irreversible

conversion of all nuclear -weapons-related facilities.

The TPNW, then, is correctly understood as an additional entry in the lineage of international legal instruments seeking to progress the agenda of the complete disarmament of nuclear weapons stockpiles. Its proponents argue that it is an important contribution to disarmament efforts, as it establishes a source of multilateral legal obligation separate from, yet complementary to, NPT Article VI and, even more importantly, a source that is independent of captured and ossified NPT regime diplomacy. Their expressed hope is that, as membership in the TPNW grows, so will the strength of the legal prohibition of possession and use of nuclear weapons in international law. The ultimate goal of TPNW proponents, even absent the membership of states which possess nuclear weapons in the TPNW itself, would be for the TPNW, along with NPT Article VI, to form the normative basis for the establishment of a rule of general customary international law prohibiting the possession and use of nuclear weapons. As the treaty parties declared at the first Meeting of States Parties to the TPNW in June, 2022:

> We will move forward with its implementation, with the aim of further stigmatizing and de-legitimizing nuclear weapons and steadily building a robust global peremptory norm against them.

The TPNW's detractors, on the other hand, including all nine states currently possessing nuclear weapons, have variously argued that the establishment of the TPNW is at best an idealistic fools errand, that will have no real legal effect as none of the states possessing nuclear weapons are likely to ever sign it. And that at worst, it is a dangerous distraction from and undermining influence on the disarmament diplomacy importantly contained within the NPT regime, with NPT Article VI as its focus.[34]

34. *See, e.g.,* Heather Williams, *A Nuclear Babel: Narratives Around the Treaty on the Prohibition of Nuclear Weapons*, 25 NONPROLIFERATION REV. 1, 4 (2018); Edward M. Ifft and David A Koplow, *Legal and Political Myths of the Treaty on the Prohibition of Nuclear Weapons*, 77 BULL. OF THE ATOMIC SCIENTISTS, 134-39 (2021).

III. A CALL TO ARMS CONTROL

Again, space in this forum will not allow for a consideration of the likely influence of the TPNW in nuclear disarmament related law and diplomacy. My suspicion is that for the foreseeable future it will be politically significant, particularly in reforming NPT related diplomacy, though not likely transformational. But the point I do wish to make herein is that, whatever role the TPNW ends up playing both politically and legally, it will be in furtherance of the agenda of nuclear weapons disarmament, in the vein of NPT Article VI. That is the proper legal contextualization of the TPNW, or in other words, what the TPNW is. But as I hope I have established by this point, what the TPNW is not is an arms control treaty, i.e. it bears no resemblance to and has no relationship with arms control treaties in the vein of SALT I, the ABM treaty, the INF Treaty, START I, SORT, or New START.

Why is that an important recognition? The reason is the chronological context of the moment of the TPNW's birth. And this brings us back to the current crisis in nuclear arms control law that I mentioned in the Introduction to this article. To recap, New START is the last remaining nuclear arms control treaty in existence between the U.S. and Russia, and it is set to expire in 2026. New START limits both states party to 1,550 deployed strategic nuclear weapons each. It further limits deployed ICBMs, SLBMs, and nuclear tasked heavy bombers to 700 for each side, and deployed and non-deployed ICBM and SLBM launchers and heavy bombers to 800 for each side. By all accounts, both the U.S. and Russia remained in compliance with the provisions of New START, even though inspections under the treaty were suspended due to the COVID pandemic, until early 2023. New START is still in force. *But if New START is allowed to expire, there will be no limits in international law on the deployment of nuclear weapons and delivery vehicles by either state for the first time since 1972.* The important guardrails limiting deployment and use-readiness of the most destructive nuclear weapons in the stockpiles of the erstwhile superpowers, guardrails that have been in place for more than fifty years, will be gone.

Prospects for the negotiation of a treaty to replace and extend New START are subject to serious question at the time of this writing. Russia's invasion of Ukraine in February 2022, and its rhetorical threats to use

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nuclear weapons to accomplish its aims in illegally annexing large parts Ukrainian territory, and the military support provided to Ukraine by the U.S. and other Western powers, have brought relations between NATO states and Russia to a low point reminiscent of the darkest days of the Cold War. Negotiations on a successor to New START, and New START itself, have become political victims of Russia's aggressive war in Ukraine. In January 2023 the U.S. for the first time formally accused Russia of being in violation of New START, and in February 2023 Russia announced that it had suspended its participation in the treaty.

Even prior to this most recent invasion, since Russia's annexation of the Ukrainian territory of Crimea in 2014, contemporaneous with Chinese President Xi Jinping's initiation of a far more aggressive and confrontational Chinese foreign economic and military policy, and nuclear weapons modernization programs announced by the U.S., Russia, and China, many analysts have warned of the existence of a new trilateral nuclear arms race.[35]

However the decay of the nuclear arms control project itself dates back significantly further. After the Cold War ended, and particularly following the terror attacks of September 11, 2001, there was a shift, certainly in U.S. threat perception, away from great power vertical nuclear weapons proliferation, and toward the threat of horizontal proliferation of nuclear weapons to "rogue states" and non-state actors of concern, including international terrorist groups. The period of relative détente between the U.S. and Russia during this time allowed for this nexus between horizontal nuclear weapons proliferation and terrorism to take up most of the available oxygen in the room of international security diplomacy, and move bilateral arms control between the U.S. and Russia to something of an afterthought, with the notable exception of the successful signing of New START in 2010.

Diplomacy on nuclear weapons during this era focused on this nexus, and produced agreements including the 2005 International Convention on the Suppression of Acts of Nuclear Terrorism, as well as Security Council Resolutions 1373 and 1540, and a series of Nuclear Security Summits organized by U.S. President Obama. This

35. *See, e.g.,* Laura Grego, *A Nuclear Arms Race is Unavoidable without Serious Intervention*, Financial Times (Oct. 28, 2021); Ulrich Kuhn, *Nuclear Arms Control Shaken by New Instability*, Carnegie Endowment (June 12, 2018); Jon Wolfsthal & Richard Burt, *America and Russia may Find Themselves in a Nuclear Arms Race Once Again*, Nat'l Interest (Jan.y 17, 2018).

nexus of threat also prompted the U.S., under President George W. Bush, to withdraw from the ABM treaty in 2002. When announcing his decision to withdraw, Bush stated that the ABM treaty "hinders our government's ability to develop ways to protect our people from future terrorist or rogue state missile attacks."[36]

The Russian invasion of Ukraine in 2014 marked an end to the post-Cold War détente era between Russia and the West. Vladimir Putin's assertion of nationalist sentiment in Russia, matched with a more aggressive foreign and military Russian policy led to increasing tension between Russia and NATO. U.S. and Russian military air patrols once again regularly tested each other's air defense systems as they had during the Cold War. The erstwhile superpowers found themselves with their soldiers facing off on the ground in Syria, backing opposing forces. American intelligence agencies determined that Russia had meddled in the 2016 U.S. presidential election, attempting to advantage the candidacy of Donald Trump. The U.S. withdrew from the INF treaty, one of the last vestiges of the nuclear arms control architecture that both sides had invested so much effort in erecting.

In U.S. defense and nuclear policy, the 2017 National Security Strategy and the 2018 Nuclear Posture Review signaled a shift to a return of focus on great power rivalry among the U.S., Russia, and China. The Nuclear Posture Review in particular indicated an increased salience of nuclear weapons in U.S. military strategy and gave rise to fears of a new arms race, focused on tactical nuclear weapons, more readily usable in combat.

The souring of U.S./Russian relations since 2014, and the demise of the framework of arms control treaties that scaffolded the bilateral security relationship for so long, have made some analysts see comparisons of the present with the early years of the Cold War. James Kitfield has argued:

> During much of the Cold War, tensions between nuclear-armed superpowers were kept in check by an architecture of military de-confliction agreements, open communication channels and nuclear arms control and verification treaties erected over decades. But today's world bears an unsettling resemblance to the early years of the Cold War, when missteps

36. Jim Garamone, *Bush Announces ABM Treaty Withdrawal*, Dep't of Defense News (Dec. 13, 2001).

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> like the Korean War, Berlin Blockade and Cuban Missile Crisis pushed the major powers to the brink.[37]

And while arms control treaties were negotiated during the height of Cold War tensions, and became important means of communication and circumscription of mutual threat, producing them took deliberate and creative leadership, and heavy diplomatic investment. And as Eugene Rumer points out, producing a new generation of arms control agreements may be more difficult than during the Cold War, because of the subsequent dynamics in the relationship between the U.S. and Russia:

> Arms control does have a long history of serving as the backbone of the East-West relationship and providing a measure of stability for it. However, that was in the context of the overall adversarial relationship, in which Washington's and Moscow's expectations of each other were very low. The end of the Cold War ushered in a new era of cooperation between the two erstwhile adversaries and much greater expectations for each other that persist—albeit in a highly diminished form—even to the present day, despite the downturn in East-West relations since 2014. It is unrealistic to expect arms control to perform the same function—stabilizing the relationship—in the present circumstances. A more realistic course of action is not to expect the arms control process to "carry" or "save" the relationship, but to seek to define the new relationship with Russia and the place of arms control within it.[38]

Especially now with relations between NATO and Russia at near historic lows, it is vital that the nuclear guardrails to the security relationship between the U.S. and Russia provided by New START do not disappear, and it is further an imperative to build a new generation of nuclear arms control treaties that broadens the scope of those guardrails. It is important to remember, as Michael Krepon has explained, that nuclear arms control has always been about more than just numerical reductions in deployed nuclear weapons:

37. *New Arms Race Taking Shape amid a Pandemic and Economic Crisis, What Could Go Wrong?*, Yahoo News (June 6, 2020).

38. *A Farewell to Arms . . . Control*, Carnegie Insight (Apr. 17, 2018).

> Nuclear arms control wasn't just about numbers and timelines; it was about acknowledging responsibility to avoid dangerous military practices that could result in the battlefield use of nuclear weapons. It was no coincidence that the superpower agreement to avoid incidents at sea was finalized in 1972, the same year as the first Strategic Arms Limitation accords, or that Nuclear Risk Reduction Centers were established in 1987, the same year that the Intermediate-range Nuclear Forces Treaty was signed. An agreement to prevent dangerous military practices on the ground and in the air followed two years later. Nuclear arms control enabled nuclear risk reduction. Conversely, nuclear risk reduction faltered without the prospect of successful arms control. Without both nuclear arms control and risk reduction, battlefield use would have been harder to prevent, with the attendant risks of being unable to curtail the scope and violence of war. The only way this objective could be achieved was to prevent the first mushroom cloud.[39]

Among the difficult challenges that will need to be faced in the effort to construct a new generation of nuclear arms control treaties are:

1. Recent quantitative and qualitative improvements in China's nuclear arsenal, combined with its steadfast opposition to being included in nuclear arms control negotiations with the U.S. and Russia;
2. U.S. insistence that any future nuclear arms control treaties entered into by the U.S. include China as well as Russia;
3. The nuclear stockpile modernization programs in which both the U.S. and Russia have been engaged in recent years under which, in addition to maintenance of existing systems, both sides have embarked on efforts of alteration and repurposing of existing warheads, and development of new pairings of warheads and delivery vehicles, in order to create new weapons designed to accomplish new military missions;
4. Russia's longstanding advantage in number and diversity of tactical nuclear weapons systems, and U.S. demands that these

39. *On the Objectives of Arms Control*, Arms Control Wonk (May 21, 2018).

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systems be covered under new nuclear arms control treaties; and

5. Russia's insistence on including U.S. anti-missile defense systems in future nuclear arms control treaties.

None of these will be easy issues to grapple with in the effort to construct new nuclear arms control guardrails for the security relationships particularly among the U.S., Russia, and China. As with the first generation of nuclear arms control treaties, deliberate and creative leadership and heavy diplomatic investment will be required. Fortunately, the international civil society movement that galvanized multilateral support for adoption of the TPNW proved how influential non-state actors can be in promoting needful change and addition to international law related to nuclear weapons.

What is needed now is for all states and non-state actors that participated in the positive addition to nuclear disarmament law that the TPNW represents, to take that win, and move forward by sustaining the creative energy that led to the adoption of the TPNW, and refocusing it on the task of encouraging and supporting a new generation of nuclear arms control treaties that push the parallel, yet distinct and still vital, agenda of nuclear arms control forward, and respond to the modern technological and political challenges facing it.

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