

NUCLEAR DISARMAMENT AND THE UNITED NATIONS DISARMAMENT MACHINERY

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I. INTRODUCTION

The United Nations (U.N.) was formed as World War II was ending with the lofty goal of preventing the scourge of war from ever again engulfing the world in global conflict. Mechanisms were devised to enable the community of nations to work together by negotiating through their disputes instead of resorting to war. Just as the U.N. was coming into being, the United States dropped two atomic bombs on Japan, changing the future nature of warfare from devastation to annihilation. The very first General Assembly Resolution at the U.N. called for the “elimination from national armaments of atomic weapons and of all other major weapons

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adaptable to mass destruction.”¹ Since then, the U.N. disarmament machinery has been running in place in pursuit of that goal.

Nuclear arsenals grew in strength and size to over 70,000 during the height of the Cold War.² Today, more than twenty years after the collapse of the Soviet Union, the world remains threatened by more than 20,000 nuclear weapons, still more than enough to carry out the Cold War doctrine of Mutually Assured Destruction.³ The vast majority of the world has resolved not to pursue nuclear weapons for their security, in exchange for technical cooperation in the peaceful uses of nuclear energy and the pursuit of nuclear disarmament.⁴ While some nuclear-armed states promote modest reductions in their deployed nuclear arsenals as progress toward nuclear disarmament, their policies and practices maintain the usefulness of nuclear weapons far into the future. For the rest of the world, it has become increasingly clear that there needs to be a new approach to nuclear disarmament in order to prevent more countries from pursuing the nuclear option.

II. NUCLEAR-ARMED STATES

Nine countries are known to possess nuclear weapons: United States, Russian Federation, United Kingdom, France, China, Israel, India, Pakistan, and the Democratic People’s Republic of Korea (DPRK).⁵ The first five listed are the so-called “recognized nuclear weapons states” (NWS) of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), because each had exploded a nuclear weapon prior to the negotiation of that Treaty.⁶ All five are also state parties to the Treaty, and are thus required to fulfill all its

1. Establishment of a Commission to Deal with the Problem Raised by the Discovery of Atomic Energy, G.A. Res. 1(I), U.N. GAOR, 1st Sess. (Jan. 24, 1946), <http://daccess-dds-ny.un.org/doc/RESOLUTION/GEN/NR0/032/52/IMG/NR003252.pdf?OpenElement> (last visited on Mar. 2, 2012).

2. *Nuclear weapons at a glance*, INT’L CAMPAIGN TO ABOLISH NUCLEAR WEAPONS, <http://www.icanw.org/ataglance> (last visited on Mar. 2, 2012).

3. *Id.*; Shannon N. Kile, Vitaly Fedchenko, Bharath Gopaldaswamy & Hans M. Kristensen, *Armaments, Disarmament and International Security*, 2011 SIPRI YEARBOOK 7 (Stockholm International Peace Research Institute 2011) available at <http://www.sipri.org/yearbook/2011/files/SIPRIYB1107-07A.pdf>. (last visited May 9, 2012) [hereinafter SIPRI 2011].

4. Treaty on the Non-Proliferation of Nuclear Weapons, *opened for signature* July 1, 1968, 21 U.S.T. 483, 729 U.N.T.S. 161 [hereinafter Nuclear Weapons].

5. Toward a World Free of Nuclear Weapons: The Expansion of Nuclear Armaments, UN.ORG, http://www.un.org/disarmament/content/news/geneva_exhibit/Geneva_Disarmament_Exhibition_Panels3.pdf (last visited on Mar. 2, 2012).

6. Nuclear Weapons, *supra* note 4, art. IX (3).

legal obligations, including the obligation in Article VI to negotiate toward nuclear disarmament.⁷ These five countries are the permanent five members of the United Nations Security Council, each of whom has the power to veto any legally binding decision made in that body.⁸

India, Pakistan, and Israel are the only three countries in the global community that have never signed the NPT.⁹ All three also have nuclear weapons, although Israel has never publicly acknowledged its nuclear weapon program.¹⁰ The DPRK withdrew from the NPT in 2003 and exploded its first nuclear device in 2006.¹¹

III. UNITED NATIONS DISARMAMENT MACHINERY

The U.N. has an important role to play in the abolition of nuclear weapons, as the disarmament machinery of the U.N. is uniquely empowered to negotiate multilateral disarmament treaties. While there have been a few successes, the world remains under the threat of over 20,000 nuclear weapons.¹² More than 4800 of these nuclear weapons are operational, and nearly 2000 of these remain on high alert, ready to be launched within minutes of an order.¹³

The main disarmament machinery at the U.N. consists of the General Assembly's First Committee, the sixty-five nation Conference on Disarmament, and the all-inclusive Disarmament Commission.¹⁴ Other international conferences impact the U.N.'s nuclear disarmament activities,

7. *Id.* art. VI.

8. U.N. Security Council Members: Membership in 2012, UN.ORG, <http://www.un.org/sc/members.asp> (last visited on Mar. 2, 2012).

9. See NPT Signatories and States Parties (in alphabetical order), UN.ORG, [http://unhq-appspub-01.un.org/UNODA/Treatystatus.nsf/NPT%20\(in%20alphabetical%20order\)?OpenView&Start=1&ExpandView](http://unhq-appspub-01.un.org/UNODA/Treatystatus.nsf/NPT%20(in%20alphabetical%20order)?OpenView&Start=1&ExpandView) (last visited on Mar. 14, 2012).

10. *Nuclear Weapons: Israel*, FAS.ORG (Jan. 8, 2007), <http://www.fas.org/nuke/guide/israel/nuke/> (last visited on Mar. 2, 2012).

11. *Chronology of U.S.-North Korean Nuclear and Missile Diplomacy*, ARMSCONTROL.ORG, <http://www.armscontrol.org/factsheets/dprkchron> (last visited on Mar. 2, 2012).

12. SIPRI 2011, *supra* note 3.

13. *Status of World Nuclear Forces*, FAS.ORG, <http://www.fas.org/programs/ssp/nukes/nuclearweapons/nukestatus.html> (last visited on Mar. 2, 2012).

14. *United Nations Disarmament Machinery*, FOREIGN AFFAIRS & INTERNATIONAL TRADE CAN., available at <http://www.international.gc.ca/arms-armes/nuclear-nucleaire/unonu.aspx?lang=eng&view=d> (last visited on Mar. 2, 2012); *Disarmament Machinery*, REACHINGCRITICALWILL.ORG, <http://www.reachingcriticalwill.org/political/politicalindex.html> (last visited on Mar. 2, 2012).

notably the Review Conferences of the Parties to the Treaty on the Non-Proliferation of Nuclear Weapons held every five years.¹⁵

The U.N.'s work toward nuclear disarmament can be described at best as slow and, at worst, as ineffective. Thus far, the U.N. has approached nuclear disarmament by working on several related issues, including the management of fissile material for nuclear weapons, entry into force of the Comprehensive Nuclear Test Ban Treaty, further reductions in the nuclear forces of the United States and Russia—who together have ninety-five percent of the world's nuclear weapons—preventing an arms race in outer space, and legally binding negative security assurances to non-nuclear weapon states (NNWS).¹⁶ Verification and compliance issues remain obstacles that need to be overcome for all of the above.

The U.N.'s incremental approach to nuclear disarmament has been stalled for at least the past fifteen years, prompting calls from the non-nuclear armed states that make up the vast majority of the world for a legally binding nuclear weapon convention and the time-bound, internationally verifiable total elimination of nuclear weapons.¹⁷ In 2008, U.N. Secretary General Ban Ki-moon proposed a five-point plan for nuclear disarmament echoing this call, which included working for nuclear disarmament either through a “framework of separate, mutually reinforcing instruments or through the negotiation of a nuclear weapon convention, such as the one already submitted in draft form to the U.N. by Costa Rica and Malaysia.”¹⁸

IV. TREATY ON THE NON-PROLIFERATION OF NUCLEAR WEAPONS

The NPT is considered the cornerstone of the nuclear disarmament and non-proliferation regime. Treaty negotiations began within the U.N. system in 1965, after the Conference on Disarmament (CD) voted to honor the request of the then eighteen-nation Disarmament Committee to consider a

15. Nuclear Weapons, *supra* note 4, art. VIII (3).

16. *The Core Issues*, REACHINGCRITICALWILL.ORG, <http://www.reachingcriticalwill.org/political/cd/basicinfo/Coreissuesindex.htm> (last visited on Mar. 2, 2012).

17. Review Conf. to the Treaty on the Non-Proliferation of Nuclear Weapons, N.Y., May 3–25, 2010, *2010 Review Conference to the Treaty on the Non-Proliferation of Nuclear Weapons: Final Document*, U.N. Doc. NPT/CONF. 2010/50 (Vol. I), pt. 1 (May 25, 2010) [hereinafter NPT Review Conference Final Document].

18. Ban Ki-Moon, Sec'y Gen., Address to the East-West Institute, “Nations and security in a nuclear-weapon-free world” UN.ORG, (Oct. 24, 2008), available at http://www.un.org/apps/news/infocus/speeches/search_full.asp?statID=351 (last visited on Mar. 2, 2012).

treaty on the non-proliferation of nuclear weapons.¹⁹ China had just become the fifth country to explode a nuclear weapon, and with nuclear technology spreading unregulated around the world, it was clear that without some kind of multilateral treaty, nuclear weapons would spread to more states.²⁰

The NPT is a three part bargain: NWS agree not to transfer nuclear weapons to any NNWS, and NNWS parties agree not to acquire nuclear weapons; NWS agree to negotiate a treaty on nuclear disarmament; and NNWS have the inalienable right to acquire nuclear technology for peaceful purposes.

The NPT's segregation of states into nuclear weapon "haves" and "have-nots" was meant to be only temporary, as Article VI obligates the negotiation "in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament."²¹ However, while the NPT obligates NNWS to conclude safeguard agreements with the International Atomic Energy Agency to ensure compliance with the non-proliferation aspect of the Treaty's bargain, no comparable mechanism was put into the Treaty to enforce the obligation of NWS to negotiate toward nuclear disarmament.²² This lacuna arguably figures as the key defect of the NPT. Moreover, while the five year NPT Review Conferences were meant to measure progress on all parts of the bargain, when the Treaty was indefinitely extended in 1995, even this modest monitoring mechanism of the nuclear disarmament obligation was eliminated.²³

V. NUCLEAR DISARMAMENT STALLED AT THE U.N.

A. *The Security Council*

The most basic reason the U.N. system has failed to achieve nuclear disarmament is that the five veto-holding permanent members of the Security Council are also the five recognized NWS parties to the NPT. Despite annual General Assembly Resolutions calling for greater progress

19. See generally B. Goldschmidt, *The Negotiation of the Non-Proliferation Treaty*, 22 IAEA BULL 73, available at http://www.iaea.org/Publications/Magazines/Bulletin/Bull1223_4/223_403587380.pdf (last visited on Mar. 2, 2012).

20. Daryl Kimball, Arms Control Assoc., *Chronology of Key Events in the Effort to End Nuclear Testing: 1945-1999*, REACHINGCRITICALWILL.ORG, <http://www.reachingcriticalwill.org/legal/ctbt/ctbtchron.html> (last visited on Mar. 2, 2012).

21. Nuclear Weapons, *supra* note 4, art. VI.

22. Nuclear Weapons, *supra* note 4, art. III.

23. Nuclear Weapons, *supra* note 4, art. X, VI.

toward achieving nuclear disarmament,²⁴ the Security Council will not exercise its power to write a legally binding Resolution mandating nuclear disarmament. There have been calls to reform the Security Council by expanding its permanent membership,²⁵ but without a change to the veto policy—which is not under consideration—the Security Council will not act to force greater progress toward achieving nuclear disarmament.

B. The Rule of Consensus in the Conference on Disarmament

The CD is the U.N.'s sole multilateral negotiating forum.²⁶ It meets three times each year in Geneva and has four core issues its members feel are ripe for negotiation: the prevention of an arms race in outer space, nuclear disarmament, a fissile material cutoff treaty (FMCT), and negative security assurances.²⁷ Votes are taken on the basis of consensus, meaning that each state holds a veto power over the group's decision-making capability.²⁸ Since the Comprehensive Test Ban Treaty was negotiated in 1996, the CD has made no progress on negotiating treaties on any of its four core issues.²⁹ The CD has been in a stalemate for so long, that its first session in 2009 was considered a success merely because the parties adopted a programme of work.³⁰ Sadly, the programme was not implemented before the end of the year, bringing the negotiating back to square one in 2011.³¹ No agreement was reached in 2011, and the CD

24. See generally U.N. General Assembly: Regular Sessions, UN.ORG, <http://www.un.org/documents/resga.htm> (last visited on Mar. 14, 2012).

25. U.N. GAOR, 45th & 46th Sess., 64th plen. mtg., U.N. Doc. GA/10887 (Nov. 13, 2009).

26. *The United Nations Office at Geneva: Disarmament, An Introduction to the Conference*, UNOG.CH, <http://www.unog.ch/80256EE600585943/%28httpPages%29/BF18ABFEFE5D344DC1256F3100311CE9?OpenDocument> (last visited on Mar. 2, 2012).

27. See *Disarmament, An Introduction to the Conference*, UNOG.CH, <http://www.unog.ch/80256EE600585943/%28httpPages%29/BF18ABFEFE5D344DC1256F3100311CE9?OpenDocument> (last visited on Mar. 2, 2012).

28. *Basic information about the CD*, REACHINGCRITICALWILL.ORG, <http://www.reachingcriticalwill.org/political/cd/basicinfoindex.html> (last visited on Mar. 2, 2012).

29. *Id.*

30. Ray Acheson, *The Conference on Disarmament in 2009: Could Do Better*, DISARMAMENT DIPLOMACY (U.K.), available at <http://www.acronym.org.uk/dd/dd91/91cd.htm> (last visited on Mar. 2, 2012); *CD adopts a programme of work!*, REACHINGCRITICALWILL.ORG (May 29, 2009), <http://reachingcriticalwill.blogspot.com/2009/05/cd-adopts-programme-of-work.html> (last visited Mar. 3, 2012).

31. *Guide to the Conference on Disarmament*, REACHINGCRITICALWILL.ORG (2011), <http://www.reachingcriticalwill.org/political/cd/cdbook2011.pdf> (last visited on Mar. 3, 2012).

again closed its final session without agreeing on what to work on, let alone beginning that important work.³²

The consensus rule has prevented negotiations from starting in the CD on a FMCT.³³ Ending the production and managing stocks of fissile material is an important part of any nuclear disarmament regime, because fissile material makes up the nuclear explosive core of nuclear weapons. Pakistan has stalled negotiation of an FMCT in the CD over concern that such a treaty would not cover existing stocks of fissile material and would, therefore, freeze Pakistan in what it perceives to be a disadvantage vis-à-vis India, which has a larger stockpile of fissile material and would, therefore, be able to make more nuclear weapons under a production-only ban.³⁴

Some states continue to suggest that an FMCT be negotiated outside of the CD to overcome this blockage caused by the consensus rule.³⁵ There is precedent for moving negotiations outside the CD—both the Land Mines and Cluster Munitions Conventions were negotiated this way, but both lack the support of certain key countries that continue to use these terrible weapons.³⁶ The nuclear powers have made it clear that they will not support discussions on key nuclear disarmament issues outside the CD, and therefore, progress remains blocked.³⁷

C. *The First Committee and Special Session on Disarmament IV*

The General Assembly's First Committee meets in October at U.N. headquarters in New York to discuss matters of nuclear and conventional disarmament.³⁸ In 2011, many states renewed their expressions of concern about what they see as a lack of progress toward achieving nuclear

32. Beatrice Fihn & Gabriella Irsten, *CD closes another failed session*, REACHINGCRITICALWILL.ORG (Sept. 15, 2011), <http://www.reachingcriticalwill.org/political/cd/2011/reports.html#sept15> (last visited on Mar. 3, 2012).

33. Gary Quinlan, Ambassador & Permanent Rep. of Austl. to the U.N., *Statement on behalf of the Non-Proliferation and Disarmament Initiative* (July 27, 2011), available at http://www.reachingcriticalwill.org/political/cd/2011/statements/plenary/270711_Australia.pdf (last visited on Mar. 3, 2012).

34. *Fissile Materials Cut-off Treaty: Background to the FMCT*, REACHINGCRITICALWILL.ORG, <http://www.reachingcriticalwill.org/legal/fmct.html> (last visited on Mar. 3, 2012).

35. *Id.*

36. *Id.*

37. Tom Z. Collina, *P5 Struggles to Unblock FMCT Talks*, ARMS CONTROL ASS'N (Oct. 2011), http://www.armscontrol.org/act/2011_10/P5_Struggles_to_Unblock_FMCT_Talks (last visited on Mar. 3, 2012).

38. *See About the General Assembly*, GEN. ASSEMBLY OF THE UNITED NATIONS, <http://www.un.org/en/ga/about/index.shtml> (last visited on Mar. 3, 2012).

disarmament.³⁹ While numbers of deployed American and Russian nuclear weapons slowly come down, nuclear weapons and their delivery systems continue to be modernized, and security policies project nuclear weapons far into the future.⁴⁰ Since 1995, the General Assembly has called for the convening of a fourth Special Session on Disarmament to break the stalemated nuclear disarmament work within the entire U.N. system.⁴¹ Despite creating open-ended working groups in 2003 and 2007, there has been no progress on establishing the objectives and agenda for the fourth Special Session on Disarmament, and no meetings have taken place.⁴²

One subject that was raised by many states in the 2011 First Committee was the forward-looking action plan for nuclear disarmament contained in the Final Document of the NPT Review Conference in 2010.⁴³ The Final Document must be adopted by consensus, and therefore, all five NWS have obligated themselves to fulfill the action plan's commitments, including to "pursue policies that are fully compatible with the treaty and the objective of achieving a world without nuclear weapons," and to "apply the principles of irreversibility, verifiability and transparency in relation to the implementation of their treaty obligations."⁴⁴ The action plan covers deployed as well as non-deployed nuclear weapons and calls on all states to ratify the Comprehensive Nuclear Test Ban Treaty, which is awaiting ratification by eight countries mentioned in its Annex II, before it can enter into force.⁴⁵ The 2010 Review Conference Final Document's action plan was hailed as a great success, but the next Review Conference in 2015 will ultimately reveal whether these commitments were successfully carried out or if, as happened after 1995 and 2000, these commitments will remain unfulfilled.

39. Ray Acheson, *First Committee Monitor 2011: Disarmament Machinery*, REACHINGCRITICALWILL.ORG, <http://www.reachingcriticalwill.org/political/1com/FCM11/final.html> (last visited on Mar. 14, 2012).

40. Candice DeNardi, *START/Russian Nuclear Policy*, NUCLEAR FILES (Jan. 27, 2010), http://nuclearfiles.org/menu/key-issues/nuclear-weapons/issues/policy/russian-nuclear-policy/PDFs/denardi_treaty_overview.pdf (last visited on Mar. 3, 2012); Hans M. Kristensen, *A New Defense Strategy: A New Nuclear Strategy?*, FAS STRATEGIC SEC. BLOG (Jan. 5, 2012), <http://www.fas.org/blog/ssp/2012/01/a-new-defense-strategy.php> (last visited on Mar. 3, 2012); Hans M. Kristensen, *Nuclear Plan Conflicts with New Budget Realities*, FAS STRATEGIC SEV. BLOG (Sept. 12, 2012), <http://www.fas.org/blog/ssp/2011/09/stockpileplan2011.php> (last visited on Mar. 3, 2012).

41. Special Sessions of the General Assembly devoted to Disarmament, UN.ORG, <http://www.un.org/disarmament/HomePage/SSOD/index.shtml> (last visited on Mar. 3, 2012).

42. *Id.*

43. See NPT Review Conference Final Document, *supra* note 17.

44. *Id.* at 20.

45. *Id.* at 22.

The progress that has been made toward nuclear disarmament has come from outside the U.N. system and the obligations of the NPT, through bilateral arms control treaties between the United States and the former Soviet Union, now the Russian Federation. Agreements such as the Strategic Arms Reduction Treaty and the Strategic Offensive Reductions Treaty reduced the number of deployed nuclear warheads and delivery systems, but deep, irreversible cuts in nuclear arsenals under international verification remain elusive.⁴⁶

VI. CURRENT NUCLEAR DOCTRINES AND FORCE LEVELS OF NUCLEAR ARMED STATES

A. *United States of America*

The Obama administration initially brought hope that the United States would actively pursue nuclear disarmament and not only non-proliferation. In April 2009, President Obama gave a speech in Prague, pledging that the United States would seek the peace and security of a world without nuclear weapons.⁴⁷ In the Nuclear Posture Review (NPR), released just before the 2010 NPT Review Conference, the United States made some changes to its nuclear policy, while ultimately falling short of abandoning its Cold War mentality and achieving more far reaching change.⁴⁸

One welcome change in the NPR is that the prevention of nuclear proliferation and nuclear terrorism has been elevated to the United State's top priority.⁴⁹ Previously the top U.S. nuclear policy priority was to maintain a strategic balance with Russia in order to protect the United States against a disarming first strike,⁵⁰ evolving in 2002 to a more

46. Anatoli Diakov & Frank von Hippel, *Challenges and Opportunities for Russia-U.S. Nuclear Arms Control*, CENTURY FOUND., at 5–13 (2009), available at <http://www.armscontrol.ru/pubs/en/Diakov-Hippel-Challenges.pdf> (last visited on Mar. 4, 2012).

47. Barack Obama, President, United States of America, Remarks by President Barack Obama, Hradcany Square, Prague, Czech Republic (Apr. 5, 2009), available at http://www.whitehouse.gov/the_press_office/Remarks-By-President-Barack-Obama-In-Prague-As-Delivered/ (last visited on Mar. 4, 2012).

48. See generally DEP'T OF DEF., NUCLEAR POSTURE REVIEW REPORT (2010), available at <http://www.defense.gov/npr/docs/2010%20nuclear%20posture%20review%20report.pdf> (last visited on Mar. 4, 2012) [hereinafter NPR 2010].

49. *Id.* at v.

50. See Alexei Fenenko, *Between MAD and Flexible Response: Russian and U.S. Nuclear Policies after the Cold War*, GLOBALAFFAIRS.RU (June 22, 2011), available at <http://eng.globalaffairs.ru/print/number/Between-MAD-and-Flexible-Response-15242> (last visited on Mar. 4, 2012).

offensive approach toward an even broader set of potential adversaries.⁵¹ Another change came in U.S. declaratory policy, which had been one of “calculated ambiguity,” in that the United States would not say under what circumstances it would consider the use of nuclear weapons.⁵² In the new NPR, the United States clarifies its policy in this regard for the first time: “The fundamental role of U.S. nuclear weapons, which will continue as long as nuclear weapons exist, is to deter nuclear attack on the United States, our allies, and partners.”⁵³ This is an important change from previous NPRs that endorsed nuclear responses not only to nuclear, but also chemical, biological, or even conventional attack on the United States or its allies.⁵⁴ However, this new policy does not state that the sole purpose of the U.S. nuclear arsenal is for nuclear deterrence, and in that sense, the NPR leaves open the possibility of offensive use.

The NPR did little else to change U.S. nuclear policy. The United States did not issue an unqualified “no-first use” policy or change the alert status for nuclear weapons, leaving hundreds of nuclear-armed ballistic missiles ready to launch within fifteen minutes of an order to do so. The NPR also called for continuing to modernize the nuclear weapons complex and nuclear warheads and their delivery systems, and it reaffirmed the importance of the nuclear triad—delivery systems for nuclear weapons by air, land-based missiles, and sea-based missiles.⁵⁵ It remains to be seen if or how this new nuclear posture will change actual targeting. Overall, U.S. nuclear policy remains focused on Cold War thinking and maintaining a large nuclear arsenal into the indefinite future.

B. Russian Federation

Russia also announced a new military policy in 2010, which seemed to add some constraint in considering the use of nuclear weapons—from the previous “in situations critical to national security” to the new, “when the

51. U.S. DEP’T OF DEF., ANNUAL REPORT TO THE PRESIDENT & THE CONGRESS chapters. 1, 7 (2002), available at http://www.dod.mil/execsec/adr2002/html_files/chap7.htm (last visited on Mar. 4, 2012).

52. Chair William J. Perry, Chair Brent Scowcroft & Project Dir. Charles D. Ferguson, *Council on Foreign Relations: Independent Task Force Report No. 62, U.S. Nuclear Weapons Policy*, at 16–17 (2009).

53. NPR 2010, *supra* note 48, at vii.

54. Philipp C. Bleek, *Nuclear Posture Review Leaks: Outlines Targets, Contingencies*, ARMSCONTROL.ORG (Apr. 2002), http://www.armscontrol.org/act/2011_10/P5_Struggles_to_Unblock_FMCT_Talks (last visited on Mar. 4, 2012).

55. See NPR 2010, *supra* note 48, at 20.

very existence of the state is threatened.”⁵⁶ In either case, however, nuclear weapons are threatened in retaliation, not only for nuclear attack, but also for chemical, biological, and conventional attack.⁵⁷

While the United States and Russia have agreed under the New Strategic Arms Reduction Treaty to modest reductions of deployed nuclear warheads and their delivery systems, Russia—like the United States—continues to modernize its nuclear arsenal.⁵⁸ Worried about the capabilities of future U.S. missile defense systems, Russia’s newest nuclear policy seeks to ensure that nation’s deterrent and second-strike capability. To that end, Russia continues to prioritize the deployment of road-mobile intercontinental ballistic missiles and a new type of submarine-launched ballistic missile.⁵⁹

C. *United Kingdom of Great Britain and Northern Ireland*

Unlike the United States and Russia who have land, sea, and air-launching capability for their nuclear weapons, the United Kingdom has only a sea-based nuclear deterrent, comprised of four Vanguard Class Trident Submarines with approximately 160 operational warheads.⁶⁰ Each sub has sixteen Trident II D5 missiles that can carry up to forty-eight warheads, and one sub is at sea at all times.⁶¹ Since the end of the Cold War, the nuclear-capable submarine on patrol has been kept at a level of reduced readiness, with its missiles de-targeted and a “notice to fire” measured in days, not minutes or hours.⁶²

The U.K.’s submarines are aging, and will begin to be retired in 2024.⁶³ A debate has been underway for over seven years in the United

56. Nikolai Sokov, *The New, 2010 Russian Military Doctrine: The Nuclear Angle*, CTR. FOR NONPROLIFERATION STUDIES (Feb. 5, 2010), http://cns.miis.edu/stories/100205_russian_nuclear_doctrine.htm (last visited on Mar. 4, 2012).

57. *Id.*

58. Pavel Podvig, *Russia’s Nuclear Forces: Between Disarmament and Modernization*, IFRI SEC. STUDIES CTR., at 9 (2011), available at www.ifri.org/downloads/pp37podvig.pdf (last visited on Mar. 14, 2012).

59. Hans Kristensen, *Russian Nuclear Forces 2010*, FAS STRATEGIC SEC. BLOG (Jan. 12, 2011), <http://www.fas.org/blog/ssp/2010/01/russia2010.php> (last visited on Mar. 4, 2012).

60. Hans M. Kristensen & Robert S. Norris, *British nuclear forces, 2011*, 5 BULL. OF THE ATOMIC SCIENTISTS 67, 89–97 (Sept. 2011), available at <http://bos.sagepub.com/content/67/5/89.full> (last visited on Mar. 4, 2012).

61. *Id.*

62. *Id.*

63. Wade Boese, *UK Nuclear Submarine Plan Wins Vote*, ARMS CONTROL TODAY (Apr. 2007), http://www.armscontrol.org/act/2007_04/UKSubPlan (last visited on Mar. 4, 2012).

Kingdom about whether or how to fund the future of this program.⁶⁴ The latest Security Review of October 2010 stated that the United Kingdom is planning to replace their submarines with a new class of nuclear-capable subs equipped with a modified Trident missile supplied by the United States.⁶⁵ Only eight launch tubes will be operational in normal circumstances, and the maximum number of nuclear warheads carried on each submarine will decrease from forty-eight to forty.⁶⁶ Exact warhead and sub designs will likely be delayed until after the next general election in 2016, meaning the service lives of the current fleet will have to be extended.⁶⁷

D. France

France's nuclear forces consist of aircraft and nuclear-capable submarines that carry about 300 warheads.⁶⁸ Nuclear policy was defined in a 2008 white paper that stated that France will continue relying on the "principle of strict sufficiency" or minimum deterrence to guarantee its security, provided by a permanent submarine patrol and airborne capability.⁶⁹

France has a new nuclear-capable submarine and both sea and land-based nuclear capable aircraft.⁷⁰ France also remains committed to sustaining its nuclear weapon complex, including research and development capabilities. France signed a technical nuclear cooperation agreement with the United Kingdom in 2010 to exchange information on nuclear weapon safety and security and stockpile certification.⁷¹

64. Ron Gurantz, *British Debate Replacement for Nuclear Force*, ARMS CONTROL TODAY (Dec. 2005), http://www.armscontrol.org/act/2005_12/DEC-Trident (last visited on Mar. 4, 2012).

65. See Prime Minister, *Securing Britain in an Age of Uncertainty: The Strategic Defence and Security Review*, HM GOV'T, at 37–39 (Oct. 2010), available at http://www.direct.gov.uk/prod_consum_dg/groups/dg_digitalassets/@dg/@en/documents/digitalasset/dg_191634.pdf?CID=PDF&PLA=furl&CRE=sdsr (last visited on Mar. 4, 2012).

66. *Id.* at 38.

67. *Id.*

68. SIPRI 2011, *supra* note 3.

69. MINISTRE DES AFFAIRES ETRANGERES [MINISTRY OF FOREIGN AFFAIRS], NUCLEAR DISARMAMENT: FRANCE'S CONCRETE COMMITMENT (Oct. 25, 2011), http://www.diplomatie.gouv.fr/en/spip.php?page=rubrique_imprim&id_rubrique=7227 (last visited on Mar. 4, 2012).

70. See generally *id.*

71. SIPRI 2011, *supra* note 3.

E. People's Republic of China

Concern has been expressed by some nuclear-armed states about the buildup of Chinese nuclear forces and the potential challenge they may present to the current international order. However, China's nuclear arsenal remains relatively small, at approximately 200 nuclear weapons, and its build-up is mostly in land-based delivery systems.⁷² China's nuclear weapons are also deliverable by air.⁷³

As a way to make their nuclear forces more survivable, China has been increasing the number of its medium and long-range missile delivery systems.⁷⁴ Development of a sea-based deterrent has been ongoing, but has yet to become fully operational.⁷⁵ As of 2010, China has three submarines either in service or in various stages of construction and outfitting.⁷⁶

China's latest nuclear policy was released in March 2011 in a white paper, which reiterated China's commitment to its "no first use" policy and to retaining its nuclear capabilities at the minimum required for national security.⁷⁷

F. India, Pakistan, and Israel

Three states have never signed the NPT, and all three have nuclear weapons: India, Pakistan, and Israel. The nuclear arsenals of these three states are relatively small compared with those of the five NPT recognized nuclear powers, but contribute greatly to instability in their respective regions. As previously mentioned, the main issue between India and Pakistan relates to fissile material, as Pakistan is determined to maintain parity with India in the capability to manufacture nuclear weapons in the future. Israel's lack of transparency regarding its nuclear weapon program prevents in-depth analysis of their nuclear policy.

72. *Id.*

73. *Id.*

74. *Id.*

75. SIPRI 2011, *supra* note 3.

76. *Id.*

77. *China Sticks to no-first-use of nuclear weapons: white paper*, XINHUANET (Mar. 31, 2011), http://news.xinhuanet.com/english2010/china/2011-03/31/c_13806909.htm (last visited on Mar. 4, 2012).

G. Democratic People's Republic of Korea

The DPRK is the only nation to have withdrawn from the NPT.⁷⁸ The first DPRK nuclear explosion took place underground in October 2006, and its second nuclear test was in May 2009.

The DPRK is believed to have separated between twenty-four—forty-two kilograms of plutonium, which would enable the construction of up to eight nuclear weapons.⁷⁹ The plutonium in the DPRK comes from their nuclear energy program, which was at least partly made possible through the technical cooperation received while a party to the NPT. Plutonium is a byproduct of the nuclear reaction in nuclear power reactors and can be separated out by a chemical process and used to create nuclear weapons. Six-party talks between DPRK, South Korea, Japan, China, Russia, and the United States resumed in 2003 in an attempt to achieve the denuclearization of the Korean Peninsula, but have been stalled since 2009.⁸⁰ It is unclear if the DPRK is pursuing a uranium enrichment program for nuclear weapons as well at the Yongbyon nuclear site.⁸¹ The DPRK has made vague nuclear threats,⁸² but without a credible means of delivery, the threat of nuclear attack by the DPRK is minimal.

VII. CONCLUSION

The policies of nuclear-armed states continue to rely on nuclear weapons into the foreseeable future. The U.N.'s incremental approach toward achieving nuclear disarmament has come to a standstill, leaving the world threatened by more than 20,000 nuclear weapons and enabling billions of dollars to continue to be invested in the modernization of nuclear warheads, delivery systems, and infrastructure. The five NPT nuclear weapon states, however, obligated themselves in that Treaty and in subsequent Review Conferences to pursue nuclear disarmament, and it is

78. *N Korea withdraws from nuclear pact*, BBCNEWS.COM (Jan. 10, 2003), <http://news.bbc.co.uk/2/hi/2644593.stm> (last visited on Mar. 4, 2012).

79. SIPRI 2011, *supra* note 3.

80. Peter Crail, *Six-Party Talks Stall Over Sampling*, ARMS CONTROL ASS'N (Feb. 2009), http://www.armscontrol.org/act/2009_01-02/sixpartytalksstall (last visited on Mar. 4, 2012).

81. David Albright & Paul Brannan, *Disabling North Korea's Uranium Enrichment Program*, INST. FOR SCI. & INT'L SEC. (Jan. 20, 2011), <http://isis-online.org/isis-reports/detail/disabling-north-koreas-uranium-enrichment-program/10> (last visited on Mar. 4, 2012).

82. David Batty & Justin McCurry, *North Korea threatens 'nuclear war' over troop exercises*, GUARDIAN.CO.UK (July 24, 2010), <http://www.guardian.co.uk/world/2010/jul/24/north-korea-nuclear-war-threat> (last visited on Mar. 4, 2012); *North Korea issues nuclear threat*, BBCNEWS.COM (Dec. 12, 2002), <http://news.bbc.co.uk/2/hi/asia-pacific/2568543.stm> (last visited on Mar. 4, 2012).

clear that the rest of the world is not willing to wait indefinitely for that obligation to be fulfilled.

If the NPT regime fails and its bargain falls apart, it is likely that several new states would acquire nuclear weapons for their own power and prestige, increasing the already dangerous possibility of accidental or intentional use, or even sale or theft of nuclear weapons or materials. This future is in no state's interest, which brings some hope that nuclear-armed states will eventually work with the rest of the world on an alternative approach to nuclear disarmament.

Nuclear weapons are not necessary for today's security threats, and the expense of maintaining them not only takes away from other legitimate military needs, but also cannot be defended in this financial climate. More NWS makes for an even more dangerous world, and while this is well known by all states at the U.N., it has not translated into concrete action. At present, the U.N. disarmament machinery remains paralyzed, but the 2010 NPT Review Conference's action plan may finally prompt NWS to make some progress toward nuclear disarmament before the next Review Conference in 2015. Before that benchmark is reached, civil society should continue to work with non-nuclear armed states to push for the negotiation of a nuclear weapon convention that provides a time-bound, irreversible, and verifiable framework for the total elimination of nuclear weapons, whether within the U.N. system or, if necessary, in some other forum.