North Korea's Nuclear Weapons Program and Potential US Responses

Daniel J. Bardzell Fordham University School of Law

Introduction

One of the most vexing problems facing the world today is nuclear proliferation. In particular, North Korea's nuclear weapons program is a matter of grave concern for the international community.

This short essay will examine North Korea's nuclear weapons program in light of the international legal regimes that impact it. It will consider whether legal regimes presently in place have successfully constrained nuclear weapons development in North Korea. It will then suggest that political differences within the international community have led to a lack of effective measures against North Korea. Finally, it will analyze the options available to the most vocal opponent of North Korean nuclear weapons development—the United States—in controlling North Korea despite the international community's political divisiveness.

Background

In order to consider the legal and policy issues regarding North Korea's nuclear weapons program and potential US responses, it is necessary to understand the origins of this program as it developed over the second half of the twentieth century.

Nuclear development in North Korea began in the mid-1950s in the aftermath of the Korean War assisted by the Soviet Union.¹ The Soviets provided initial training of personnel and technical assistance in the construction of a nuclear research reactor.² The Soviets and, to some extent, China provided early assistance but, following this, North Korea's nuclear program developed largely internally.³

In the late 1960s, North Korea expanded its nuclear research to include military uses of nuclear technology and, by the early 1970s, North Korea had begun to acquire plutonium-reprocessing

¹ See North Korea: Country Profiles, NTI (2011), http://www.nti.org/country-profiles/north-korea/nuclear.

² See id.

³ See id.

technology from the Soviet Union.4

In 1985, North Korea joined the Nuclear Non-Proliferation Treaty ("NPT").⁵ The NPT "employs binding legal commitments and independent institutional oversight in order to monitor the potential diversion of expertise, materials, and technology from authorized civilian energy programs to prohibited military applications." The NPT "divides the signing parties into two independent groups with corresponding responsibilities and mandates: nuclear weapon states and non-nuclear weapon states. North Korea joined the treaty as a non-nuclear weapon state. 8

"[I]n 1993, North Korea threatened to withdraw from the NPT and denied IAEA inspection of nuclear facilities. After bilateral negotiation with the United States . . . [the] Agreed Framework[] was adopted in October of 1994." Under the Agreed Framework, "North Korea agreed to freeze its nuclear reactors, while remaining a party to the NPT and permitting regular inspections of its reactors in order to ensure compliance. In return, "the United States agreed to replace the reactors with light-water reactor power plants . . . and to reduce trade barriers with the impoverished country. The United States, South Korea, and Japan, under the name of the Korean Peninsula Energy Development Organization[,] also agreed to deliver temporary energy until the completion of the first [light-water reactor]."

In October 2002, allegations that North Korea had restarted its nuclear weapons program triggered the collapse of the Agreed Framework and, ultimately, North Korea's withdrawal from the NPT in 2003.¹²

⁴ See id.

⁵ See Jared M. Lee, Denuclearization of the Korean Peninsula: Recent Agreements and Lessons From the Past, 16 J. Transnat'l L. & Pol'y 377, 379 (2006).

⁶ David S. Jonas, *Reforming the Nuclear Nonproliferation Regime: Al-Qaeda, Global Terrorism, and the Rogue State Paradigm*, 13 UCLA J. INT'L L. & FOREIGN AFF. 337, 347 (2008).

⁷ Justin Farber, *A Legal Interpretation of North Korea's Nuclear Program*, 6 GLOBAL TIDES 1, 5-6 (2012), *available at* http://digitalcommons.pepperdine.edu/globaltides/vol6/iss1/1.

⁸ See id. at 5.

⁹ Lee, *supra* note 5, at 379.

¹⁰ Jesse D. Steele, Negotiating with Deity: Strategies and Influences Related to Recent North Korean Negotiating Behavior, 9 Pepp. Disp. Resol. L.J. 119, 121 (2008).

¹¹ Id at 122

¹² See Wade L. Huntley, Rebels Without a Cause: North Korea, Iran and the NPT, 82 INT'L AFFAIRS 723, 723 (2006).

The Current State of North Korea's Nuclear Program

While the extent and success of North Korea's nuclear program remains shrouded in secrecy, open-source information provides some estimates of North Korea's quantities of weapons-usable fissile material and warheads. "In total, it is estimated that North Korea [has produced] between 30 and 50 kilograms of separated plutonium, enough for at least half a dozen nuclear weapons." However, it is likely that approximately 5 to 6 kilograms of this total was used for North Korea's October 2006 test, in addition to the amount probably used in the May 2009 test. Therefore, "[t]aking the nuclear tests into account, North Korean could possess plutonium for four to seven nuclear weapons."

The lack of a more precise figure within this range is due to open questions regarding North Korea's weapon design sophistication.¹⁷ Scholar Mary Beth Nikitin provides, "A key factor in assessing how many weapons North Korea can produce is whether North Korea needs to use more or less [fissable] material than the IAEA standard[] . . . per weapon." Since there is no reliable evidence on how effective North Korea's weapon design is, it is impossible to narrow the suggested range.

A further consideration when exploring the scope of North Korea's nuclear weapons program is the extent of its delivery systems—missiles that could be equipped with nuclear weapons for the purpose of launching them at targets. Reports state that "North Korea has short and medium range missiles that could be fitted with nuclear weapons, but we do not know whether it has in fact done so." North Korea has several hundred short-range Scud-class and medium-range No Dong-class ballistic missiles, and is developing an intermediate-range ballistic missile. 20

¹³ See Mary Beth Nikitin, Congressional Research Service, North Korea's Nuclear Weapons: Technical Issues, Summary (2012).

¹⁴ *Id*.

¹⁵ See id.

 $^{^{16}}$ *Id*. at 5.

¹⁷ See id.

¹⁸ *Id*.

¹⁹ *Id.* at 15-16.

²⁰ See id.

Legal Framework

In assessing the legality of North Korea's nuclear program and potential US responses, there are four generally recognized sources of international law that can be applied:

a. international conventions, whether general or particular, establishing rules expressly recognized by the contesting states; b. international custom, as evidence of a general practice accepted as law; c. the general principles of law recognized by civilized nations; d. subject to the provisions of Article 59, judicial decisions and the teachings of the most highly qualified publicists of the various nations, as subsidiary means for the determination of rules of law.²¹

Each of these sources of law is implicitly subject to the laws of armed conflict.²² One expression of the laws of armed conflict is provided by the Navy/Marine Commander's Handbook, which identifies the "three fundamental principles" of such law:

- 1. The right of belligerents to adopt means of injuring the enemy is not unlimited.
- 2. It is prohibited to launch attacks against the civilian population as such.
- 3. Distinctions must be made between combatants and noncombatants, to the effect that noncombatants be spared as much as possible.²³

From these statements of law, three central principles flow: proportionality, necessity and discrimination.²⁴

The first rule–proportionality–"prohibits the use of a weapon if its probable effects upon combatant or non-combatant persons or objects would likely be disproportionate to the value of the anticipated military objective." ²⁵

The second rule–necessity–"provides that, in conducting a military operation, a State, even as against its adversary's forces and property, may use only such a level of force as is 'necessary' or 'imperatively necessary' to achieve its military objective, and that any additional level of force is

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²¹ CHARLES MOXLEY, NUCLEAR WEAPONS AND INTERNATIONAL LAW IN THE POST COLD WAR WORLD 20 (Austin & Winfield Publishers, 1st ed. 2000); *see* Statute of the International Court of Justice (Annex to UN Charter), 59 Stat 1031, art. 38 (1945), *available at* http://www.icj-cij.org/documents/index.php?p1=4&p2=2&p3=0.

²² See LINDSAY MOIR, THE LAW OF INTERNAL ARMED CONFLICT 18 (Cambridge University Press, 1st ed. 2002).

²³ United States Department of The Navy Annotated Supplement To The Commander's Handbook On The Law of Naval Operations (Naval Warfare Publication 8-1, 1987) (With Revision A (October 5, 1989), this handbook was adopted by the U.S. Marine Corps as Fleet Marine Force Manual (FM FM) [hereinafter The Naval Marine Commander's Handbook].

²⁴ See MOXLEY, supra note 21, AT 52, 64.

²⁵ *Id.* at 40.

prohibited as unlawful."²⁶ Within the rule of necessity, there are four basic elements to be met:

- (i) that the force used is capable of being and is in fact regulated by the user;
- (ii) that the use of force is necessary to achieve as quickly as possible the partial or complete submission of the adversary;
- (iii) that the force used is no greater in effect on the enemy's personnel or property than needed to achieve his prompt submission (economy of force); and
- (iv) that the force used is not otherwise prohibited.²⁷

The third rule–discrimination–"prohibits the use of a weapon that cannot discriminate in its effects between military and civilian targets." ²⁸

By directly considering international conventions and customary law and indirectly considering general principles of law and judicial opinions, the substantial legal issues effecting North Korea's nuclear weapons program point to the program's illegality.

International Conventions

International convention law is the first source of law applicable to the legality of North Korea's nuclear weapons program. One convention that applies specifically to nuclear weapons is the NPT.²⁹ North Korea became a party to the NPT in 1985 and left it in January 2003.³⁰

NPT Articles 2, 3 and 10 have all potentially been violated by North Korea. Article 2 provides:

Each non-nuclear-weapon State Party to the Treaty undertakes not to receive the transfer from any transferor whatsoever of nuclear weapons or other nuclear explosive devices or of control over such weapons or explosive devices directly, or indirectly; not to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices; and not to seek or receive any assistance in the manufacture of nuclear weapons or other nuclear explosive devices.³¹

Existing evidence strongly supports the conclusion that North Korea has violated Article 2.³² In October 2002, in response to US questions regarding the existence of a North Korean facility for

²⁶ *Id.* at 52.

²⁷ *Id.* at 56 (internal citation omitted).

²⁸ Id. at 64

²⁹ 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; *see* Charles Moxley & John Burroughs et at., *Nuclear Weapons and International Law: A Nuclear Nonproliferation Regime For the 21st Century*, 34 FORDHAM INT'L L.J. 595, 606 (2010).

³⁰ See Wade L. Huntley, *North Korea & the NPT*, INSTITUTE FOR POLICY STUDIES (Oct. 2, 2005), *available at* http://www.fpif.org/reports/north_korea_the_npt.

Treaty on the Non-Proliferation of Nuclear Weapons art 2., July 1, 1968, 21 U.S.T. 161, 729 U.N.T.S. 161.

³² See Justin Farber, A Legal Interpretation of North Korea's Nuclear Program, 6 GLOBAL TIDES 1, 5 (2012), available at http://digitalcommons.pepperdine.edu/globaltides/vol6/iss1/1.

further enriching uranium, a North Korean official admitted that North Korea "had been pursuing the development of nuclear weapons through the process of further uranium enrichment." Although North Korea later tried to disclaim this admission, "[t]he international community largely ignored these defensive claims and found the evidence against North Korea to be sufficient."

Further evidence of North Korea's violation of the NPT was provided on October 9, 2006 when "North Korea conducted an underground nuclear explosion in the vicinity of P'unggye." This test strongly suggests that North Korea violated the NPT's ban on manufacturing nuclear weapons while still a party to the treaty because "[t]he test explosion indicated that an enrichment program must have been in place for some time."

North Korea has also potentially violated Article 3 of the NPT. Article 3, in pertinent part, provides: "Each non-nuclear-weapon State Party to the treaty undertakes to accept safeguards, as set forth in an agreement . . . in accordance with the Statute of the IAEA and the Agency's safeguards system . . . for the exclusive purpose of verification of the fulfillment of its obligations assumed under this Treaty." The Statute of the IAEA is the founding document of the International Atomic Energy Agency ("IAEA"). The IAEA "offers technical and financial assistance in the development of nuclear capabilities for non-proscribed purposes to Member States." Furthermore, the IAEA conducts inspections of Member States nuclear facilities to ensure that such facilities are not being used for military purposes. Even if a state is not a signatory to the IAEA Statute, the "NPT mandates that

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 $^{^{33}}$ Id

³⁴ *Id*.

³⁵ Duyeon Kim, Fact Sheet: North Korea's Nuclear and Ballistic Missile Programs, CENTER FOR ARMS CONTROL AND NON-PROLIFERATION (August 2012),

 $http://armscontrolcenter.org/publications/factsheets/fact_sheet_north_korea_nuclear_and_missile_programs/.$

³⁶ See Farber, supra note 32, at 8.

³⁷ Treaty on the Non-Proliferation of Nuclear Weapons art 3, July 1, 1968, 21 U.S.T. 161, 729 U.N.T.S. 161.

³⁸ See Statute of the International Atomic Energy Agency, October 23, 1956, 276 U.N.T.S. 3.

³⁹ Susan Carmody, *Balancing Collective Security and National Sovereignty: Does the United Nations Have the Right to Inspect North Korea's Nuclear Facilities?*, 18 FORDHAM INT'L L.J. 229, 235 (1995).
⁴⁰ See id. at 236.

each signatory conclude a safeguards agreement with the [IAEA]."⁴¹

In accordance with its obligations under Article 3, North Korea entered into the Safeguards Agreement with the IAEA on January 30, 1992. This agreement "provide[d] for measurements and observations of North Korean nuclear material and facilities by IAEA inspectors" and it was to remain in force so long as North Korea was a party to the NPT. 43 "Under the agreement's terms, North Korea provided an 'initial declaration' of its nuclear facilities and materials, and provided access for IAEA inspectors to verify the completeness and correctness of its initial declaration."⁴⁴ Pursuant to the Safeguards Agreement, "[i]f North Korea . . . ever refused inspectors entry into any area of any nuclear facility, it was acting in violation of international law."45

North Korea's subsequent actions regarding inspections suggest that it violated international law. Inspections unveiled deficiencies in North Korea's initial facility and material declarations. 46 This included North Korea's failure to declare certain quantities of plutonium and additional quantities of nuclear waste.⁴⁷

"As a result of these inconsistencies, IAEA, during ad hoc inspections, requested access to additional North Korean facilities for inspection. North Korea refused on the ground that the additional sites were military and non-nuclear." Following this refusal, the IAEA passed a resolution pursuant to the Safeguards Agreement requiring North Korea to consent to inspection despite its arguments that the sites were military and non-nuclear.⁴⁹ North Korea again denied the request.⁵⁰ Therefore, by

⁴¹ See id. at 243.

⁴² See North Korea: Country Profiles, NTI (2011), http://www.nti.org/country-profiles/north-korea/nuclear.

⁴³ Frederic L. Kirgis, North Korea's Withdrawal from the Nuclear Non-Proliferation Treaty, American Society of International Law (Jan. 2003), http://www.asil.org/insigh96.cfm.

⁴⁴ See North Korea: Country Profiles, NTI (2011), http://www.nti.org/country-profiles/north-korea/nuclear (citation omitted).

⁴⁵ See Farber, supra note 32, at 5.

⁴⁶ See Masahiko Asada, Arms Control Law in Crisis? A Study of the North Korean Nuclear Issue, 9 J. CONFLICT & SEC. L. 331, 334 (2004).

⁴⁷ See id. 48 Id.

⁴⁹ See Farber, supra note 32, at 5; IAEA and DPRK, INTERNATIONAL ATOMIC ENERGY AGENCY, http://www.iaee.org/newscenter/focus/iaeadprk/fact sheet may2003.shtml.

⁵⁰ See Farber, supra note 32, at 7; IAEA and DPRK, INTERNATIONAL ATOMIC ENERGY AGENCY,

denying a request it was compelled to allow pursuant to the Safeguards Agreement, North Korea violated the Safeguards Agreement and, as a result, violated NPT Article 3.

Third, North Korea has potentially violated NPT Article 10. Article 10, in pertinent part, provides:

Each Party shall in exercising its national sovereignty have the right to withdraw from the Treaty if it decides that extraordinary events, related to the subject matter of this Treaty, have jeopardized the supreme interests of its country. It shall give notice of such withdrawal to all other Parties to the Treaty and to the United Nations Security Council three months in advance. Such notice shall include a statement of the extraordinary events it regards as having jeopardized its supreme interests.⁵¹

On January 10, 2003, North Korea withdrew from the NPT.⁵² For this withdrawal to comport with Article 10, the following requirements must have been satisfied: (1) North Korea must have decided that extraordinary events related to the subject matter of the NPT jeopardized its supreme interest; and (2) North Korea must have given sufficient three month notice of its withdrawal to all other NPT Parties ⁵³

North Korea provided two justifications for its withdrawal from the NPT in 2003: (1) "a South Korean-U.S. military exercise of 1993 that North Korea said was threatening[,]" and (2) "the lack of objectivity of IAEA inspectors" in seeking access to additional facilities.⁵⁴ Both of these justifications were originally provided in 1993 when North Korea gave notice of its intent to withdraw from the NPT but ultimately choose to remain a member.⁵⁵ The 2003 notice provided the further argument that "President Bush's inclusion of it within his 'axis of evil' category [led to the conclusion] that the

http://www.iaee.org/newscenter/focus/iaeadprk/fact sheet may2003.shtml.

⁵¹ Treaty on the Non-Proliferation of Nuclear Weapons art 10, July 1, 1968, 21 U.S.T. 161, 729 U.N.T.S. 161.

⁵² See Frederic L. Kirgis, North Korea's Withdrawal from the Nuclear Non-Proliferation Treaty, American Society of International Law (Jan. 2003), http://www.asil.org/insigh96.cfm; Farber, supra note 32, at 9.

⁵² See Farber, *supra* note 32, at 9.

⁵³ Treaty on the Non-Proliferation of Nuclear Weapons art 10, July 1, 1968, 21 U.S.T. 161, 729 U.N.T.S. 161.

⁵⁴ George Bunn & Roland Timerbaev, *The Right to Withdraw From the Nuclear Non-Proliferation Treaty (NPT): The Views of Two NPT Negotiators*, 10 YADERNY KONTROL DIGEST, 21, 20-21 (2005); *see* Jozef Goldblat, *Should the Right to Withdraw From the NPT be Withdrawn?*, INT'L COMM'N ON NUCLEAR NON-PROLIFERATION AND DISARMAMENT (Jan. 2009), http://www.icnnd.org/latest/research/index.html; *North Korean Statement on Withdrawal from Nuclear Pact*, GUARDIAN, Jan. 10, 2003, http://www.guardian.co.uk/world/2003/jan/10/northkorea2.

⁵⁵ See Bunn & Timerbaev, supra note 54, at 21.

United States was targeting it for a preemptive strike."56

In considering the legality of North Korea's 2003 withdrawal, it must be asked, first, whether these justifications constitute a decision by North Korea that extraordinary events related to the subject matter of the NPT jeopardized its supreme interests. While, at first glance, this language would suggest that North Korea needed merely a subjective view that such events met this standard, the legislative history of the NPT suggests otherwise. At the Geneva Disarmament Committee NPT negotiations, it was generally agreed "that withdrawal should 'not be a matter of absolute discretionary power [of the withdrawing party] but should depend on non-observance of the treaty arising from its non-application or violation by a contracting party, or from the fact that a third State is supplying nuclear weapons to some other State." The withdrawing country's justifications had to be presented to the UN Security Council and all of the parties to the NPT and these justifications would then be 'judged against the standard of extraordinary events' that 'jeopardized its supreme interests. This legislative history strongly suggests that an objective standard exists for withdrawal justifications under the NPT.

North Korea's justifications were likely not objectively reasonable and in violation of Article 10. North Korea's first justification for withdrawal was that "a South Korean-U.S. military exercise of 1993 was threatening to North Korea." Commentators note that "[m]ilitary exercises had happened in South Korea many times before and after 1993 without causing North Korea's withdrawal." Therefore, the military events that took place in 1993 were hardly extraordinary in 1993 let alone an

⁵⁶ Id; see Charles J. Moxley, Jr., The Sword in the Mirror – The Lawfulness of North Korea's Use and Threat of Use of Nuclear Weapons Based on the United States' Legitimization of Nuclear Weapons, 27 FORDHAM INT'L L.J. 1379, 1383 (2003) (stating that North Korea justified its withdrawal by asserting "the United States had threatened it with preemptive nuclear attack and other belligerent actions such as blockades [and] . . . instigated even the IAEA to internationalize its moves to stifle the DPRK, thus putting into practice its declaration of a war against the DPRK.").

⁵⁷ See Bunn & Timerbaev, supra note 54, at 22.

⁵⁸ *Id*. (citation omitted).

⁵⁹ *Id.* (citation omitted).

⁶⁰ Id. at 20-21; see Jozef Goldblat, Should the Right to Wtihdraw From the NPT be Withdrawn?, INT'L COMM'N ON NUCLEAR NON-PROLIFERATION AND DISARMAMENT (Jan. 2009), http://www.icnnd.org/latest/research/index.html.

⁶¹ Bunn & Timerbaev, *supra* note 54, at 23; *see S. Korea Offers to Cancel Military Exercises*, DESERET NEWS, Dec. 24, 1991, http://www.deseretnews.com/article/200523/S-KOREA-OFFERS-TO-CANCEL-MILITARY-EXERCISES.html?pg=all.

objective basis for withdrawal ten years later. Furthermore, these military exercises "did not involve nuclear weapons or relate to nuclear nonproliferation[.]" There was no nuclear threat present.

Therefore, this justification did not meet the requirement that it concern the subject matter of the NPT.

As a result, it failed to provide a legal basis for withdrawal from the NPT.

The second justification for North Korea's withdrawal from the NPT was that IAEA inspectors lacked objectivity. This justification similarly fails to meet the requirements of Article 10. The inspections and resulting requests for expanded inspections were done pursuant to the Safeguards Agreement and, as such, would not qualify as extraordinary events. Furthermore, it seems likely that Article 10's requirement that a country's supreme interest be threatened would not be met by the actions of the inspectors performing duties under the Safeguard Agreement and the NPT. Simply put, the extraordinary event threatening a country's supreme interest cannot stem from appropriate inspections done in furtherance of the intent of the NPT—to prevent countries from developing nuclear weapons programs. To say otherwise would not comport with the intent of the NPT.

The second prong of Article 10's requirements for withdrawal is that the party must give three months notice of its withdrawal to all other NPT Parties.⁶⁴ North Korea's 2003 notice was to be effective in one day.⁶⁵ North Korea argued that "by its 2003 announcement and a one-day notice period, it had fulfilled the NPT's three-month notice requirement because it was relying on the 89 days that had gone by after the 1993 notice was given before North Korea announced that the 1993 notice was no longer in effect."⁶⁶

In light of "North Korea's view that it was simply reinstating its 1993 notice of withdrawal, the

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⁶² Bunn & Timerbaev, *supra* note 54, at 23.

⁶³ See id. at 20-21; see North Korean Statement on Withdrawal from Nuclear Pact, GUARDIAN, Jan. 10, 2003, http://www.guardian.co.uk/world/2003/jan/10/northkorea2.

⁶⁴ See Treaty on the Non-Proliferation of Nuclear Weapons art. 1, opened for signature July 1, 1968, 21 U.S.T. 483, 729 U.N.T.S. 161.

⁶⁵ See George Bunn & John B. Rhinelander, Withdrawal: Time for the Security Council to Step in, http://www.armscontrol.org/act/2005 05/Bunn Rhinelander; Bunn & Timerbaev, supra note 54, at 22.

⁶⁶ See Bunn & Timerbaev, supra note 54, at 23; Jean du Preez & William Potter, North Korea's Withdrawal From the NPT: A Reality Check, JAMES MARTIN CENTER FOR NONPROLIFERATION STUDIES, http://cns.miis.edu/stories/030409.htm.

reasons given in North Korea's 1993 notice to justify withdrawal must be taken as North Korea's justification for withdrawal in 2003."⁶⁷ Therefore the additional assertion within North Korea's 2003 statement of withdrawal asserting that "President Bush's inclusion of it within his 'axis of evil' category [led to the conclusion] that the United States was targeting it for a preemptive strike[]" must be disregarded when considering the effectiveness of North Korea's notice of withdraw.⁶⁸ Given the insufficient justification provided in the 1993 notice of withdrawal, North Korea's 2003 withdrawal failed to meet the criteria provided by the NPT and violated international law.

Even if the 1993 justification was sufficient for North Korea to legally withdraw from the NPT, it is unlikely that North Korea could legally tack notice periods. North Korea "believed that it could suspend its withdrawal at any point, wait one additional day (the remainder of the three-month notification of withdrawal period), and officially no longer be party to the treaty." If a country were allowed to tack notice periods under the NPT withdrawal clause, "there [would be] no time for negotiation with the country over its decision and no time for other countries to reevaluate their geopolitical position in a world in which a given state is no longer party to the treaty and no requirement for a country to provide an updated statement" of reasons for withdrawal. Scholars suggest that this would "undermine[] the purpose and intent of Article 10 Section 1."

Although the legislative history of the NPT suggests an objective standard exists for extraordinary events leading to a country's withdrawal, precedent exists suggesting that similar treaties have not abided by an objective standard.⁷² One such treaty is the Anti-Ballistic Missile Treaty ("ABM

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⁶⁷ See Bunn & Timerbaev, supra note 54, at 21.

⁶⁸ *Id.*; see Ed Shin, *U.S. Diplomacy with North Korea During the Bush Administration* 3, (2009), available at http://www.princeton.edu/research/cases/Shin4-09.pdf.

⁶⁹ Farber, *supra* note 32, at 12; Jean du Preez & William Potter, *North Korea's Withdrawal From the NPT: A Reality Check,* JAMES MARTIN CENTER FOR NONPROLIFERATION STUDIES, http://cns.miis.edu/stories/030409.htm.
⁷⁰ Farber, *supra* note 32, at 12.

 $^{^{71}}$ *Id*

⁷² See John Burroughs & Merav Datan et al., An Assessment of U.S. Policies and Actions Regarding Security-Related Treaties 78 (Nicole Deller & Arjun Makhijani et al. eds., 2002), available at http://lcnp.org/pubs/RuleofLawPDF.pdf.

Treaty"). The central purpose of the ABM Treaty was "to constrain the Parties from deploying territory-wide defenses against strategic ballistic missiles. 'Each country thus leaves unchallenged the penetration capability of the others retaliatory missile forces' which the framers believed would assure the deterrent capabilities of the two negotiating parties."⁷⁴

The United States withdrew from the ABM treaty in 2002.⁷⁵ The withdrawal provision in the ABM Treaty provides a six-month notice requirement but otherwise closely mirrors that of the NPT withdrawal language. The ABM Treaty withdrawal clause, in pertinent part, provides:

Each Party shall, in exercising its national sovereignty, have the right to withdraw from this Treaty if it decides that extraordinary events related to the subject matter of this Treaty have jeopardized its supreme interests. It shall give notice of its decision to the other Party six months prior to withdrawal from the Treaty. Such notice shall include a statement of the extraordinary events the notifying Party regards as having jeopardized its supreme interests.⁷⁶

The United States, in its withdrawal from the ABM Treaty, provided six months notice and a statement of "extraordinary events" leading to its withdrawal. However, commentators have suggested that no objective extraordinary events existed. ⁷⁸ Commentators argue that no framework exists for judging claims of "extraordinary events" under the ABM Treaty, and Russia, the other signatory to the ABM Treaty besides the US, did not raise claims of US violations.⁷⁹

A harmful precedent was set when the US withdrew from the ABM Treaty under questionable circumstances. Scholar John Burroughs suggests, "The decision of the United States to unilaterally withdraw from the ABM Treaty further undermines it. It makes action with respect to other states that

⁷³ Treaty on the Limitation of Anti-Ballistic Missile Systems, May 26, 1972, U.S.-U.S.S.R., 23 U.S.T. 3435, T.A.A.S. No. 7503 [hereinafter ABM Treaty]; see JOHN BURROUGHS & MERAV DATAN ET AL., AN ASSESSMENT OF U.S. POLICIES AND ACTIONS REGARDING SECURITY-RELATED TREATIES 78 (Nicole Deller & Arjun Makhijani et al. eds., 2002), available at http://lcnp.org/pubs/RuleofLawPDF.pdf.

⁷⁴ ABM Treaty: Executive Summary, Office of the Under Secretary of Defense for Acquisition, Technology, and LOGISTICS, http://www.acq.osd.mil/tc/treaties/abm/execsum.htm.

⁷⁵ See Lynn Rusten, U.S. Withdrawal from the Antiballistic Missile Treaty 12 (Jeffrey A. Larsen & Erin R. Mahan, 1st ed. 2010) ("On June 13, 2002, the U.S. withdrawal from the ABM Treaty became effective.").

⁷⁶ ABM Treaty, art, XV.

⁷⁷ See John Burroughs & Meray Datan et al., An Assessment of U.S. Policies and Actions Regarding Security-RELATED TREATIES 78 (Nicole Deller & Arjun Makhijani et al. eds., 2002), available at http://lcnp.org/pubs/RuleofLawPDF.pdf.

⁷⁸ See id. ⁷⁹ See id.

withdraw from treaties even less legitimate, since the United States has itself unilaterally cited 'extraordinary events' as a basis for withdrawal from a security treaty."80

North Korea's withdrawal from the NPT came only a year after the US withdrew from the ABM Treaty. Despite evidence suggesting that the NPT was meant to have an objective standard for "extraordinary events," the US withdrawal from the ABM Treaty suggests that this standard is blurred and unlikely to be enforced in any case.

Legal Consequences for Violating the NPT

There are no clear, direct legal consequences for violations of the NPT.⁸¹ This is because "the treaty itself contains no mechanism of enforcement, nor does the IAEA have any jurisdiction or capacity in this regard."82

Although clear violations of the NPT are to be referred to the UN Security Council, "this is no guarantee of effective action."83 Pursuant to the UN Charter, "decisions of the Security Council are made by an affirmative vote of nine members of the Council including the concurring votes of the five permanent members. . . . If a permanent member casts a negative vote, the draft resolution being voted on is not passed."84 Resolutions can be passed providing for sanctions but given the voting requirements, this becomes a matter of politics. Therefore, there are no required legal consequences for violations of the NPT.

In considering whether political pressure negatively impacts the frequency of consequences for NPT violations, scholars have suggested "there is little stomach at the UN for enforcing th[e NPT]."85 "If the treaty is not scrupulously enforced against any and all cheaters[,]... the value of the

⁸⁰ *Id*.

⁸¹ See Steven Miller, Is the NPT System Slowly Dying? Seven Challenges to the Regime, Athens Conference on Nuclear Proliferation 12, (May 30-31, 2003).

⁸² *Id*. ⁸³ *Id*.

⁸⁴ Security Council: Voting Information, UNITED NATIONS (Dec. 16, 2012), https://www.un.org/Depts/dhl/resguide/scvote.htm.

⁸⁵ Miller, *supra* note 81, at 13.

nonproliferation regime is circumscribed."86

This suggested lack of potential for enforcing NPT violations raises the question of whether other weapons treaties have brought on consequences for violations. One such example of a violated treaty is the Biological and Toxin Weapons Convention ("BWC"), which went into force in 1975. Boris Yeltsin admitted in 1992 that the former Soviet Union had violated it. Despite explicit statements admitting that the former Soviet Union was in violation of the BWC, no consequences followed. Commentators suggest that countries such as the US declined to pursue consequences for Russian violations because such pursuits would conflict with other issues on which the international community desired Russian cooperation. This is an example of politics trumping enforcement of international legal regimes. UN resolutions discussed *infra* in regards to North Korea show that politics trump international law with some frequency.

Even if the US had raised the issue of Soviet BWC violations, it would have accomplished little since no effective system exists for dealing with breaches of the BWC.⁹¹

Although the NPT, like many sources of international law including the BWC, suffers from a lack of direct consequences, indirect consequences can exist. Violators of the NPT are likely to incur a loss of reputation. The basic formulation of reputational consequences states that:

[a] reputation for compliance with international law is valuable because it allows states to make more credible promises to other states. This allows the state to extract greater concessions when it negotiates an international agreement. When a state violates a commitment, it signals a willingness to ignore international law and therefore suffers a reputational loss. ⁹²

Therefore, by violating its NPT commitments, North Korea is likely to suffer a reputational loss. This

⁸⁶ Id.

⁸⁷ Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, April 10, 1972, 1015 U.N.T.S. 163.

⁸⁸ See Michael Moodie, *The Soviet Union, Russia, and the Biological and Toxic Weapons Convention*, NONPROLIFERATION REV., Spring 2001, at 59-62, *available at* http://cns.miis.edu/npr/pdfs/81moodie.pdf.

⁸⁹ See id. at 65.

⁹⁰ See id.

⁹¹ See id. at 63-65.

⁹² Andrew T. Guzman, *Reputation and International Law* 383, available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1112064#%23.

will make it more difficult for North Korea to make credible promises to other states and decrease the likelihood of North Korea having beneficial relationships with other nations. Indeed, North Korea's withdrawal coincided with a decline in its economic viability⁹³, suggesting its withdrawal from the NPT potentially had an adverse economic impact.

Legal Consequences for Violation of the Safeguards Agreement

Although no direct legal consequences flow from North Korea's violations of the NPT, North Korea's Safeguards Agreement with the IAEA made pursuant to the NPT does provide for some direct legal consequences.

Article 19 of the Safeguards Agreement provides that "in an instance where the agency cannot confirm that a state's nuclear program meets the defined safeguards, it can use the methods outlined in Article 12 of the agency's Statute." Article 12 provides, "In the event of non-compliance and failure by the recipient State or States to take requested corrective steps within a reasonable time, . . . suspend or terminate assistance and withdraw any materials and equipment made available by the Agency or a member in furtherance of the project." Therefore, North Korean violations of the Safeguards Agreement would result in the suspension or termination of assistance and withdrawal of equipment made available by the IAEA or an IAEA member state in furtherance of peaceful nuclear development. Although this is unlikely to materially deter a country from violating a safeguards agreement, it is a legal consequence nonetheless. Additionally, these legal consequences would not suffer from traditional international law problems with enforcement because the IAEA could take unilateral action in terminating assistance to North Korea.

This consequence has occurred. "At various times since 1993, especially since the [North

⁹³ See IAN JEFFRIES, NORTH KOREA: A GUIDE TO ECONOMIC AND POLITICAL DEVELOPMENTS 51 (Taylor & Francis e-Library, 2006).

⁹⁴ Democratic People's Republic of Korea-International Atomic Energy Agency Agreement for the Application of Safeguards in Connection with the Treaty on the Non-proliferation of Nuclear Weapons, 33 I.L.M. 315 (1994); INFCIRC/403, May 1992.

⁹⁵ Statute of the International Atomic Energy Agency, October 23, 1956, 276 U.N.T.S. 3.

Korea]'s official withdrawal [from the NPT] in 2003, the IAEA has not supplied the state with assistance in further developing its nuclear program." ⁹⁶

UN Security Council Resolutions

Another instrument of conventional law applicable to North Korea is the UN Charter.⁹⁷ The UN Charter is an international treaty that North Korea joined in 1991.⁹⁸ The UN is currently composed of 193 member states in its General Assembly.⁹⁹ Within these 193 member states in the General Assembly, 15 also sit on the Security Council which "consists of ten elected members, and five permanent members"¹⁰⁰ The UN Security Council "is the only UN organ that can pass legally binding resolutions."¹⁰¹ Since North Korea is a member state of the UN, the Security Council not only has the power to impose obligations on other member states in their interactions with North Korea but to also pass binding measures upon North Korea itself.

The Security Council has passed a variety of resolutions applicable to or as a result of North Korea's nuclear weapons program. Each of these resolutions has been of questionable strength.

Resolution 1540 is the first Security Council resolution that may weigh on North Korea's nuclear weapons program. Resolution 1540, introduced in 2004, is the most comprehensive response by the UN Security Council following the exposure of the transnational nuclear smuggling network set up by Pakistani scientist A. Q. Khan, wherein numerous countries including North Korea were provided with nuclear secrets. Note that the first Security Council resolution that may weigh on North Korea's nuclear weapons program.

⁹⁶ See Farber, supra note 32, at 18.

⁹⁷ U.N. Charter.

⁹⁸ See Bardo Fassbender, The United Nations Charter as Constitution of the International Community, 36 COLUM. J. TRANSNAT'L L. 529, 529 (1998); ROBERT L. WORDEN, NORTH KOREA: A COUNTRY STUDY xiii (Robert L. Worden ed. 2009).

⁹⁹ Functions and Powers of the General Assembly, UNITED NATIONS, http://www.un.org/en/ga/about/background.shtml ¹⁰⁰ United Nations Security Council: Frequently Asked Questions, UNITED NATIONS, http://www.un.org/en/sc/about/faq.shtml#scmembership.

¹⁰¹United Nations Security Council, NTI (2011), http://www.nti.org/treaties-and-regimes/un-security-council.

¹⁰² See S.C. Res. 1540, U.N. Doc. S/RES/1540 (Apr. 28, 2004).

¹⁰³ See generally Monika Heupel, *Implementing UN Security Council Resolution 1540: A Division of Labor Strategy*, Carnegie Paper (June 2007); Julian Borger, *Pakistani Generals 'Helped Sell Nuclear Secrets*,' GUARDIAN, July 7, 2011, http://www.guardian.co.uk/world/2011/jul/07/pakistani-generals-helped-sell-nuclear-secrets.

Resolution 1540 "states that the proliferation of WMD, 'as well as their means of delivery, constitutes a threat to international peace and security.""¹⁰⁴ Therefore, "the international community recognized that the launch of a missile [could be a] violation of international law" and established "binding obligations on all UN member states under Chapter VII of the UN Charter" to, in part, "adopt and enforce effective laws prohibiting the proliferation of such items to non-State actors, and prohibiting assisting or financing such proliferation."¹⁰⁵

The United States, in supporting the passage of this resolution, maintained "[a] primary aim . . . [of] restrain[ing] North Korea's missile development and export." However, since "Resolution 1540 is limited to prohibiting missile discharge only when used in terrorism, or in support of those foregoing activities[,] . . . it must be proved whether North Korea's missiles are supporting terrorism. If not, North Korea's missile firing could be legitimate according to Article 2(7) or Article 51 of the U.N. Charter." While there is no evidence to suggest that North Korea has used its missiles for purposes of terrorism or in support of terrorism, US intelligence reports assert that North Korea has threatened to provide nuclear weapons to terrorists. If North Korea followed through with this threat, it would be in violation of Resolution 1540.

In 2006, North Korea conducted a variety of missile launches and nuclear tests.¹⁰⁹ The first came on July 5, 2006 when North Korea launched numerous missiles towards the East Sea of Korea including intercontinental ballistic missiles (ICBMs).¹¹⁰ Next, on October 9, 2006, North Korea

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¹⁰⁴ Eric Yong-Joong Lee, *Legal Analysis of the 2006 U.N. Security Council Resolutions Against North Korea's WMD Development*, 31 FORDHAM INT'L L.J. 1, 12 (2007) (citing S.C. Res. 1540, U.N. Doc. S/RES/1540 (Apr. 28, 2004)).

¹⁰⁵ *Id*; see UN Security Council Resolution 1540, US DEPARTMENT OF STATE, http://www.state.gov/t/isn/c18943.htm.

Yong-Joong Lee, *supra* note 104, at 13.

¹⁰⁷ Id. at 30; See S.C. Res. 1540, U.N. Doc. S/RES/1540 (Apr. 28, 2004).

¹⁰⁸ N. Korea Would Sell Nukes to Terrorists, WASHINGTON TIMES, Feb. 5, 2008,

http://www.washingtontimes.com/news/2008/feb/5/n-korea-would-sell-nukes-to-terrorists/

¹⁰⁹See Yong-Joong Lee, supra note 104, at 1; North Korea Rocket Launch: Timeline of Nuclear and Missile Programmes, TELEGRAPH, Dec. 12, 2012, http://www.telegraph.co.uk/news/worldnews/asia/northkorea/9738808/North-Korea-rocket-launch-timeline-of-nuclear-and-missile-programmes.html.

¹¹⁰ See Yong-Joong Lee, supra note 104, at 1; North Korea Rocket Launch: Timeline of Nuclear and Missile Programmes, TELEGRAPH, Dec. 12, 2012, http://www.telegraph.co.uk/news/worldnews/asia/northkorea/9738808/North-Korea-rocket-launch-timeline-of-nuclear-and-missile-programmes.html.

detonated a nuclear device underground.¹¹¹ In response, the Security Council passed Resolutions 1695 and Resolution 1718.¹¹² "Resolution 1695 . . . demanded that North Korea discontinue missile discharge."¹¹³ Resolution 1718 "acknowledg[ed] North Korea's nuclear test as a clear threat to international peace and security, [and] imposed certain sanctions on North Korea. Specifically, Resolution 1718 calls on all U.N. Member States to inspect cargo vessels leaving or arriving in North Korea in order to prevent any illegal trafficking in unconventional weapons or ballistic missiles."¹¹⁴

The language of Resolution 1695 does not refer to Chapter VII of the Charter. Such a reference could have "authorized punishments including breaking diplomatic ties, imposing economic sanctions, naval blockades and military action." Without an explicit reference to Chapter VII, "[the] question may arise as to whether the Council could enforce collective security measures toward North Korea directly from Resolution 1695." Without reference to Chapter VII, "Resolution 1695 is closer to . . . [a] 'provisional measure' which [merely] recommends other Member States control North Korea's access to missile-related items, goods, materials, technology, and financial resources." In other words, no legally binding force appears to flow from Resolution 1695. North Korea's previously noted missile launches post-2006 prompt the inference that this measure lacked a deterrent effect.

The second resolution passed following North Korea's 2006 missile launches was Resolution 1718. "Resolution 1718 stipulates that the Security Council is "[a]cting under Chapter VII of the Charter of the United Nations, and taking measures under its Article 41." Article 41 of the Charter authorizes the Council to employ measures that do not involve the use of armed forces to give effect to

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¹¹¹ See Yong-Joong Lee, supra note 104, at 1; North Korea Rocket Launch: Timeline of Nuclear and Missile Programmes, TELEGRAPH, Dec. 12, 2012, http://www.telegraph.co.uk/news/worldnews/asia/northkorea/9738808/North-Korea-rocket-launch-timeline-of-nuclear-and-missile-programmes.html.

¹¹² See S.C. Res. 1695, U.N. Doc. S/RES/1695 (July 15, 2006); S.C. Res. 1718, U.N. Doc. S/RES/1718 (Oct. 14, 2006).

¹¹³ Yong-Joong Lee, *supra* note 104, at 7; *See* S.C. Res. 1695, U.N. Doc. S/RES/1695 (July 15, 2006).

¹¹⁴ Yong-Joong Lee, *supra* note 104, at 10; *see* S.C. Res. 1718, U.N. Doc. S/RES/1718 (Oct. 14, 2006).

¹¹⁵ See S.C. Res. 1695, U.N. Doc. S/RES/1695 (July 15, 2006); Yong-Joong Lee, supra note 104, at 32.

¹¹⁶ Yong-Joong Lee, *supra* note 104, at 22; U.N. Charter ch. VII.

¹¹⁷ *Id*. at 32.

¹¹⁸ *Id*. at 33.

¹¹⁹ See S.C. Res. 1718, U.N. Doc. S/RES/1718 (Oct. 14, 2006).

¹²⁰ Yong-Joong Lee, *supra* note 104, at 27.

its objectives. 121 Resolution 1718 "impose[d] limited sanctions on North Korea . . . but did not authorize collective military measures." ¹²² These sanctions included "a ban on the transfer to and from North Korea of enumerated categories of weapons such as tanks, and WMD-and ballistic missilerelated goods and luxury items." Additionally, it called on states to conduct inspections of cargo to and from North Korea and freeze assets of certain individuals and entities named by the committee. 124

Commentators suggest that Resolution 1718's economic sanctions have had little or no economic effect on North Korea and have done little to effect regime behavior. 125 This lack of impact on North Korea's activities stems largely from the fact that "the sanctions were limited to exports of military and luxury goods, with the definitions of these products and the administration of the sanctions left up to individual UN members." 126 With the power to define the scope of these sanctions as they wished, North Korea's biggest trading partners narrowly construed the resolution and maintained a substantial amount of trade with North Korea. 127 This narrow reading of the resolution dulled its desired economic bite.

On May 25, 2009, North Korea conducted a second underground nuclear explosion. ¹²⁸ In response, the UN Security Council passed Resolution 1874 "which puts in place a series of sanctions on North Korea's arms sales, luxury goods, and financial transactions related to its weapons programs and calls upon states to inspect North Korean vessels suspected of carrying such shipments."¹²⁹

Resolution 1874 "includes a ban on all arms transfers from the DPRK and all arms except

¹²¹ See U.N. Charter, art. 41; id.

¹²² Scott Snyder, Responses to North Korea's Nuclear Test: Capitulation or Collective Action?, WASHINGTON QUARTERLY,

¹²³ North Korea Sanctions: Resolution 1718 Versus Resolution 1874, U.S. DEPARTMENT OF STATE (June 12, 2009), http://www.state.gov/r/pa/prs/ps/2009/06a/124709.htm.

¹²⁵ See Marcus Noland, The (Non) Impact of UN Sanctions on North Korea 9 (Peterson Institute for Int'l Econ., Working Paper No. 12, 2008).

¹²⁶ Id. ¹²⁷ See id.

¹²⁸ See Mary Beth Nikitin, Congressional Research Service, North Korea's Second Nuclear Test: Implications of U.N. Security Council Resolution 1874, 1 (2010).

¹²⁹ *Id*; see S.C. Res. 1874, U.N. Doc. S/RES/1874 (June 12, 2009).

exports of small arms or light weapons to the DPRK. . . . [it] also . . . calls on states not to provide grants, assistance, loans, or public financial support for trade if such assistance could contribute to North Korea's proliferation efforts [and] calls on states to deny financial services, including freezing assets, where such assets could contribute to prohibited DPRK programs." 130 Like Resolution 1718, enforcement of Resolution 1874 sanctions are not mandatory. Commentators expressed doubt over the likelihood that these sanctions would have a noticeable effect. This was largely due to broad suspicion that China would materially fail to cooperate. 131

Reports on the impact of Resolution 1874 have shown mixed results. Some reports suggest that China has failed to cooperate fully. 133 When confronted with evidence that Chinese companies were violating Resolution 1874 in trading restricted items to North Korea, China failed to act to prevent it. 134 However, a conflicting report to the UN Security Council stated that the sanctions imposed by Resolution 1874 have assisted in slowing North Korea's development of its nuclear and ballistic missile programs. 135 Despite this claim of progress, the impact of any aforementioned resolutions must be tempered by the fact that North Korea conducted a rocket launch on April 12, 2012 in violation of at least three of the previously discussed Resolutions and, therefore, has continued to act aggressively. 136

International Custom

International customary law is the second source of law applicable to North Korea's nuclear

¹³⁰ Nikitin, *supra* note 128, at 2.

¹³¹ See id. at Summary.

Compare Julian Ryall, Chinese Firms Breaking U.N. Embargo on North Korea, Telegraph, Dec. 16, 2012, http://www.telegraph.co.uk/news/worldnews/asia/northkorea/9320339/Chinese-firms-breaking-UN-embargo-on-North-Korea.html, with Kelsey Davenport, Sanctions Seen Slowing N. Korea Progress, ARMS CONTROL ASSOCIATION (July 2012), http://www.armscontrol.org/2012 07-08/Sanctions Seen Slowing N Korea Progress.

¹³³ See Julian Ryall, Chinese Firms Breaking U.N. Embargo on North Korea, TELEGRAPH, Dec. 16, 2012, http://www.telegraph.co.uk/news/worldnews/asia/northkorea/9320339/Chinese-firms-breaking-UN-embargo-on-North-Korea.html.

¹³⁴ See id.

¹³⁵ See Kelsey Davenport, Sanctions Seen Slowing N. Korea Progress, ARMS CONTROL ASSOCIATION (July 2012), http://www.armscontrol.org/2012 07-08/Sanctions Seen Slowing N Korea Progress.

¹³⁶ Council Meeting on DPRK Rocket Launch, WHATS IN BLUE (Apr. 13, 2012),

http://www.whatsinblue.org/2012/04/council-meeting-on-dprk-rocket-launch.php?page=all&print=true.

weapons program. Violations of international custom may stem from North Korea's missile tests. ¹³⁷
International custom prevents one country from undertaking unauthorized use of air space above another country. ¹³⁸ Japanese territorial waters are vulnerable to North Korean missile tests given their close proximity to North Korea. ¹³⁹ At the present time, no North Korea missiles have been known to enter Japanese territory and thus would not present a direct violation of this custom. ¹⁴⁰ North Korea's lack of notice to other states prior to conducting its missile tests could potentially provide another violation of international custom. Although "[i]nternational law does not prohibit the testing of unarmed missiles over the oceans, unless ships at sea or other lawful users of ocean or air space are harmed[,] [b]y not giving prior notice of its missile test, . . . it could be assumed that North Korea violated a procedural norm of international law because it endangered ships and aircraft that might have unknowingly been in the missiles' path." ¹⁴¹

A further potential violation of international custom stems from North Korea's nuclear tests. Nuclear testing is regulated by a number of treaties including the 1963 Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water ("Partial Test Ban Treaty"). Although "North Korea is not a party to [this] treat[y] and thus does not have any direct legal obligations thereunder[,]' the significant number of countries that have signed th[is] treat[y] could result in the creation of an international custom to which all countries would be subject to regardless of whether or not they have signed [it]." Commentators suggest that although it cannot be determined with certainty, "the long moratorium on atmospheric testing, the absence of verified breaches of this

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¹³⁷ See Yong-Joong Lee, supra note 104, at 14.

¹³⁸ See id; Frederic L. Kirgis, North Korea's Missile Firings, AMERICAN SOCIETY OF INTERNATIONAL LAW, July 24, 2006, http://www.asil.org/insights060724.cfm.

¹³⁹ See Yong-Joong Lee, supra note 104, at 14.

¹⁴⁰ See id.

¹⁴¹ See id.

¹⁴² See Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water, Aug. 5, 1963, 14 U.S.T. 1313, 480 U.N.T.S. 43 [hereinafter Partial Test Ban Treaty]; Christopher J. Le Mon, *International Law and North Korean Nuclear Testing*, AMERICAN SOCIETY OF INTERNATIONAL LAW (Oct. 19, 2006), http://www.asil.org/insights061020.cfm. ¹⁴³ Christopher J. Le Mon, *International Law and North Korean Nuclear Testing*, AMERICAN SOCIETY OF INTERNATIONAL LAW (Oct. 19, 2006), http://www.asil.org/insights061020.cfm.

moratorium, and the fact that non-parties . . . refrain[] from atmospheric testing strongly [suggests that the Partial Test Ban Treaty is now customary law.]"¹⁴⁴ The question remains whether non-signatories refrain from violating the Partial Test Ban Treaty out of recognition that it is in fact a customary law or merely for political reasons. This uncertainty has not been resolved by identifiable scholarly writing on the topic but apparent international cooperation with the terms of the Partial Test Ban Treaty weighs in favor of finding it to be customary law.

Even if the Partial Test Ban Treaty were considered customary law, it permits underground testing so long as radioactive material does not spread beyond the test country's borders. Although no evidence can be found suggesting that North Korea's underground testing has spread radioactive material beyond its borders, if this were found to be the case, North Korean would be in violation of international custom.

Potential United States Responses to North Korea's Nuclear Weapons Program

Three possible US responses to North Korea's growing nuclear weapons program include: (1) engagement; (2) containment; and (3) military action.

The first potential method of restraining North Korea's nuclear weapons program is engagement. Engagement "encourages North Korea to abandon its nuclear ambitions through dialogue and negotiations. A policy of engagement emphasizes the use of diplomatic and economic elements of power over military action." Such a policy requires "vigorous but flexible bilateral and multilateral diplomacy with North Korea . . . [that] may include a formal security guarantee offered to North Korea by the United States (either alone or multilaterally), stating that the United States and other signatory

¹⁴⁴Andreas Persbo, *Is the Partial Test Ban Treaty Customary Law?*, ARMS CONTROL VERIFICATION.ORG (Oct. 24, 2006), http://www.armscontrolverification.org/2006/10/is-partial-test-ban-treaty-customary.html; *see* Gaetano Arangio-Ruiz, Yearbook of the International Law Commission 1996: Eighth Report on State Responsibility 26, Doc. A/CN.4/474, add.1 (May 14, 24, 1996), *available at* http://untreaty.un.org/ilc/reports/english/A_51_10.pdf (stating "[i]t may therefore be safely concluded that the ban on atmospheric testing has by now crystallized as customary law").

¹⁴⁵ See Christopher J. Le Mon, *International Law and North Korean Nuclear Testing*, AMERICAN SOCIETY OF INTERNATIONAL LAW (Oct. 19, 2006), http://www.asil.org/insights061020.cfm.

¹⁴⁶ DAVID J. BISHOP, DISMANTLING NORTH KOREA'S NUCLEAR WEAPONS PROGRAMS 3, (Strategic Studies Institute, 2005), available at http://www.strategicstudiesinstitute.army.mil/pdffiles/pub599.pdf.

nations will not attack North Korea."147

While engagement may sound appealing, dialogue and negotiations have been attempted at length since 2003 with little success. ¹⁴⁸ These negotiations have primarily taken place during the Six-Party Talks. ¹⁴⁹ The Six-Party Talks are "a series of multilateral negotiations held intermittently since 2003 and attended by China, Japan, North Korea, Russia, South Korea, and the United States for the purpose of dismantling North Korea's nuclear program. ¹⁵⁰ Although negotiations appeared promising at times with North Korea agreeing at one point to dismantle its nuclear reactor, disagreement over the implementation of a verification protocol for reactor dismantlement ultimately derailed negotiations in 2008. ¹⁵¹ Since 2008, efforts to restart the Six-Party Talks have been hampered by North Korea's "continued belligerent actions, its vituperative rhetoric toward South Korean politicians, and most importantly its failure to fulfill obligations undertaken in previous agreements[.]" ¹⁵²

While engagement presents the "least near-term risk of triggering provocation" by North Korea as well as being the option "most acceptable to the international community[,]" history has shown it to be ineffective in dealing with North Korea's nuclear weapons program.¹⁵³

Engagement has been the overriding US policy approach since the Obama administration assumed power. Following North Korea's 2012 missile launch, the likelihood that the US will pivot towards a more sanction-based approach has grown. Given the repeated failure of negotiations to

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¹⁴⁸ See Emma Chanlett-Avery & Ian E. Rinehart, Congressional Research Service, North Korea: U.S. Relations, Nuclear Diplomacy, and Internal Situation 10 (2012).

¹⁴⁹ See Xiaodon Liang, Six-Party Talks at a Glance, ARMS CONTROL ASSOCIATION (May 2012), http://www.armscontrol.org/factsheets/6partytalks.

 ¹⁵¹ See Emma Chanlett-Avery & Ian E. Rinehart, Congressional Research Service, North Korea: U.S. Relations, Nuclear Diplomacy, and Internal Situation 11 (2012).
 ¹⁵² Id.

¹⁵³ DAVID J. BISHOP, DISMANTLING NORTH KOREA'S NUCLEAR WEAPONS PROGRAMS 4, (Strategic Studies Institute, 2005), available at http://www.strategicstudiesinstitute.army.mil/pdffiles/pub599.pdf; see Chris McGreal, Obama Engagement Policy 'In Tatters' After North Korean Rocket Defiance, GUARDIAN, Apr. 13, 2012, http://www.guardian.co.uk/world/2012/apr/13/obama-north-korea-engagement-policy.

See Chris McGreal, Obama Engagement Policy 'In Tatters' After North Korean Rocket Defiance, GUARDIAN, Apr. 13, 2012, http://www.guardian.co.uk/world/2012/apr/13/obama-north-korea-engagement-policy.
 See id.

curb North Korea's nuclear tests and missile launches, such a policy turn may be necessary.

A second potential US response to North Korea's nuclear weapons program is a policy of containment. Containment is "a policy of creating strategic alliances in order to check the expansion of a hostile power or ideology or to force it to negotiate peacefully." Containment seeks to "force North Korea to abandon its nuclear ambitions through a series of punitive actions [including] coercive diplomacy and economic sanctions." 157

While the failure of engagement suggests that punitive action may be necessary to stem to the near-uninhibited nuclear development in North Korea, the containment approach has been heavily criticized for its own deficiencies. Some scholars have criticized a pure containment policy as "serv[ing] to [further] alienate an aggressor state[.]" Others have argued, "Containment alone could drive North Korea to rationalize that the status quo is unacceptable and therefore take preemptive military action on its own." Furthermore, North Korea's continued nuclear progress despite the numerous sanctions already imposed shows the limits of punitive action.

Another potential approach is an engagement/containment hybrid policy.¹⁶¹ "[T]his [policy] is the practice of negotiating with a rival to agree terms of cooperation, which benefit both sides, and should the rival refuse or break their terms then a more aggressive approach is justified, such as containment."¹⁶² Such a policy would take into account both the past failure of a pure engagement policy to prevent further nuclear development as well as the potential for a pure containment policy to lack international enforcement and push North Korea further into isolation.

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¹⁵⁶ DAVID J. BISHOP, DISMANTLING NORTH KOREA'S NUCLEAR WEAPONS PROGRAMS 4, (Strategic Studies Institute, 2005), available at http://www.strategicstudiesinstitute.army.mil/pdffiles/pub599.pdf.

¹⁵⁷ Id.

¹⁵⁸ See Josh Saxby, After the Chenoan: Engagement of Containment? What is the Most Effective Approach for the United States Foreign Policy when Considering North Korea's Nuclear Ambitions?, 6 POLIS J. 1, 11 (Winter 2011/2012). ¹⁵⁹ Id.

¹⁶⁰ DAVID J. BISHOP, DISMANTLING NORTH KOREA'S NUCLEAR WEAPONS PROGRAMS 7, (Strategic Studies Institute, 2005), *available at* http://www.strategicstudiesinstitute.army.mil/pdffiles/pub599.pdf.

¹⁶¹ See Victor D. Cha, Hawk Engagement and Preventive Defense on the Korean Peninsula, 27 INT'L SEC. 40, 43 (2002). ¹⁶² Josh Saxby, After the Chenoan: Engagement of Containment? What is the Most Effective Approach for the United States Foreign Policy when Considering North Korea's Nuclear Ambitions?, 6 POLIS J. 1, 11 (Winter 2011/2012) (citation omitted).

An engagement/containment hybrid policy would also help build international support for curtailing future North Korean nuclear development. Scholars suggest that "[t]he adoption of engagement by [containment-minded policy makers] 'will help to build a coalition for punishment tomorrow' should the need arise. If other states like China, Russia and Japan support such a policy, the position of the US is secured and the [North Korean] threat . . . is further diminished." ¹⁶³

Finally, the US could respond to North Korea's nuclear program by taking preemptive military action. The UN Charter, which North Korea and the United States have both signed, ¹⁶⁴ weighs on the legality of a preemptive US strike on North Korea's nuclear weapons program. Article 2 of the UN Charter, in pertinent part, provides that "All Members [of the United Nations] shall refrain in their international relations from the threat or use of force against the territorial integrity or political independence of any state, or in any other manner inconsistent with the Purposes of the United Nations." There are two exceptions to this rule: (1) under U.N. Charter Article 42, the U.N. Security Council can authorize military force if necessary to maintain or restore peace, provided that certain factual conditions are met; and (2) under U.N. Charter Article 51, a nation may act to protect itself or its allies in self-defense. ¹⁶⁶

The first potential justification for taking military action—U.N. Security Council authorization—is unlikely in light of the U.N. Security Council's political divisiveness on the issue of North Korea. China, in particular, would likely be unwilling to agree to such a measure given its strong historical ties to North Korea and its prior reluctance to pass strict resolutions.

Absent U.N. Security Council authorization, the United States would have to rely on a right to

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 $^{^{163}}$ Id. at 26

¹⁶⁴ See Member States of the United Nations, United Nations (Jul. 3, 2006), http://www.un.org/en/members/index.shtml. ¹⁶⁵ U.N. Charter, art. 2 para. 4., available at http://www.un.org/en/documents/charter/chapter1.shtml.

¹⁶⁶ See U.N. Charter, art. 42, 51, available at http://www.un.org/en/documents/charter/chapter7.shtml; Gregory E. Maggs, How the United States Might Justify a Preemptive Strike on a Rogue Nation's Nuclear Weapon Development Facilities Under the U.N. Charter, 57 SYRACUSE L. REV. 465, 471-72 (2006).

self-defense pursuant to U.N. Charter Article 51.¹⁶⁷ Opinions differ on whether a right to preemptively strike in self-defense exists.

One view states, "Article 51 recognizes that a nation has an inherent right to respond in self-defense only after it has suffered an actual armed attack." Such a view "finds strong support in the text of Article 51, the practice of the Security Council and General Assembly, the decisions of the International Court of Justice, and . . . [scholarly articles.]" International Court of Justice, and . . . [scholarly articles.]

A second view is that Article 51 authorizes self-defense in response to both an actual armed attack and an imminent threat of armed attack.¹⁷⁰ This view has been described as anticipatory self-defense.¹⁷¹ Supporters of this view often cite the *Caroline* case, wherein United States officials accepted a foreign state's apology for taking military action within US territory and stated that a nation could strike in self-defense, even before suffering an attack, when the "necessity of that self-defence is instant, overwhelming, and leaving no choice of means, and no moment for deliberation." This long-standing case was followed without disagreement for many years and may serve as international customary law.¹⁷³

Therefore, to preemptively strike North Korea's nuclear facilities, the United States could potentially argue that North Korea's nuclear program has developed to the point of posing an imminent threat to the United States. While North Korea's missile launch failures in regards to ICBMs needed to reach the United States would suggest that an imminent threat does not yet exist, US officials have suggested that North Korea will have the missile capabilities to pose a "direct threat" to the United

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¹⁶⁷ See U.N. Charter, art. 51, available at http://www.un.org/en/documents/charter/chapter7.shtml.

¹⁶⁸ Gregory E. Maggs, How the United States Might Justify a Preemptive Strike on a Rogue Nation's Nuclear Weapon Development Facilities Under the U.N. Charter, 57 Syracuse L. Rev. 465, 473 (2006).

¹⁶⁹ Id.

¹⁷⁰ See id. at 476

¹⁷¹ See Mary Ellen O'Connell, *The Myth of Preemptive Self-Defense*, The American Society of International Law Task Force on Terrorism, August 2002, at 2, note 10.

¹⁷² The *Caroline* Case, 2 Moore 24-30, 409-14.

¹⁷³ See Chris Richter, *Pre-emptive Self-Defense, International Law and US Policy*, 1 DIALOGUE 55, 57-59 (2003), available at http://www.polsis.ug.edu.au/dialogue/vol-1-2-6.pdf.

States by 2016.¹⁷⁴ Furthermore, an argument can be made that North Korea's current stockpile of medium-range missiles capable of reaching US military bases in Guam already serves as an imminent threat and could warrant a preemptive US strike.

If the *Caroline* standard were applied to the potential for a North Korean strike on US facilities on Guam, it is likely that the totality of problems plaguing both North Korea's nuclear test capabilities and its delivery systems would not currently create an environment where the necessity of self-defense is instant, overwhelming, and leaves no choice of means, and no moment for deliberation. However, if North Korea continues to perfect its nuclear weapons capabilities, a time may come when the United States may use the *Caroline* view to support a preemptive strike on North Korean nuclear facilities.

A third, less accepted formulation of the doctrine of self-defense is the "Bush Doctrine." The Bush Doctrine implements a lower threat threshold than the previously discussed self-defense formulations in determining when force can be used preemptively. The Bush Doctrine, or preemptive self-defense, is defined as "a party use[ing] force to quell any possibility of future attack by another state, even where there is no reason to believe that an attack is planned and where no prior attack has occurred." This can be "distinguished from 'anticipatory' self-defense . . . [which] is a narrower doctrine that would authorize armed responses to attacks that are on the brink of launch, or where an enemy attack has *already* occurred and the victim learns more attacks are planned."

Since Obama took office, statements from his administration have lacked clarity regarding whether or not the US has rejected the Bush Doctrine.¹⁷⁹ Furthermore, recent Obama administration statements regarding potential military strike in Syria have threatened to use preemptive force despite a

Anne Gearan, *Robert Gates: North Korea Will Pose Direct Threat to U.S.*, HUFFINGTON POST, Jan. 11, 2011, http://www.huffingtonpost.com/2011/01/11/robert-gates-north-korea-threat_n_807222.html.

¹⁷⁵See Christian Henderson, *The 2010 United States National Security Strategy and the Obama Doctrine of 'Necessary Force'*. 15 J. CONFLICT & SEC. L. 403, 403 (2010).

¹⁷⁶ Mary Ellen O'Connell, *The Myth of Preemptive Self-Defense*, THE AMERICAN SOCIETY OF INTERNATIONAL LAW TASK FORCE ON TERRORISM, August 2002, at 2, note 10. ¹⁷⁷ *Id*.

¹⁷⁸ *Id*.

¹⁷⁹ See Christian Henderson, The 2010 United States National Security Strategy and the Obama Doctrine of 'Necessary Force'. 15 J. CONFLICT & SEC. L. 403, 404 (2010).

lack of direct threat of imminent attack to prevent Syria from spreading weapons of mass destruction. This threat to "take action against the spread of WMDs, even if they are not being directly used to threaten attack, is a key part of the Bush Doctrine." This suggests that, as of 2012, the US would consider implementing any of the three previously-discussed formulations of self-defense.

A further potential basis for a military strike on North Korea is the argument that the requirement for the more accepted self-defense justification—the existence of an actual armed attack—has been met. Since the 1980s, there have been multiple instances of North Korean aggression towards South Korea resulting in South Korean casualties. Scholars suggest "these armed attacks would justify South Korea or its allies in taking military action in self-defense under Article 51, as South Korea in fact routinely does." Scholars suggest "these armed attacks would" in fact routinely does.

The language of Article 51 stating the existence of an "inherent right of individual or collective self-defense if an armed attack occurs against a Member of the United Nations" indicates that it is legal for one country to act in self-defense following an attack on its ally so long as that ally is also a member of the United Nations. South Korea is also a member state of the United Nations and as such the United States could cite Article 51 as justifying the United States in taking military action against North Korea following an armed attack on South Korea.

Therefore, in the future, Article 51 could justify some military action against North Korea by the United States if North Korea took further military action against South Korea. It should be noted, however, that the totality of these prior attacks could not be cited as justification for some future

¹⁸⁰ See Julian Ku, President Obama Adopts the Bush Doctrine in Threatening Force Against Syria, OPINIO JURIS (Aug. 21, 2012), http://opiniojuris.org/2012/08/21/president-obama-adopts-the-bush-doctrine-in-threatening-force-against-syria/.

¹⁸¹ Id

¹⁸² See Martin Fackler, A Pattern of Aggression, N.Y.TIMES, Nov. 23, 2010, http://www.nytimes.com/2010/11/24/world/asia/24north.html.

¹⁸³ See Gregory E. Maggs, How the United States Might Justify a Preemptive Strike on a Rogue Nation's Nuclear Weapon Development Facilities Under the U.N. Charter, 57 SYRACUSE L. REV. 465, 484 (2006).

¹⁸⁴ U.N. Charter, art. 51.

¹⁸⁵ See Member States of the United Nations, UNITED NATIONS (Jul. 3, 2006), http://www.un.org/en/members/index.shtml.

military action. The right of self-defense is not an open ended right. "It is not the first 'armed attack' that triggers the right of self-defense; on the contrary, it is the imminent threat of the second attack that triggers such right" in commonly accepted views of the principle of self-defense. ¹⁸⁶ This right is not created to act as a result of an armed attack, "nor does it permit such action. What it simply provides is that self-defense is 'to be exclusively directed to repel [ongoing or imminent] armed attack[s] of the aggressor [S]tate.' That is all that it provides." ¹⁸⁷

The United States could also argue that a breach of the Korean War Armistice by North Korea provides a further basis for US military action. The Korean War was brought to an end in 1953 by the Armistice–a cease-fire agreement–rather than a peace treaty. 188

One source of breach of the Armistice by North Korea can be found in Article 1. Article 1, Paragraph 9 of the Armistice provides, "No person, military or civilian, shall be permitted to enter the demilitarized zone except persons concerned with the conduct of civil administration and relief and persons specifically authorized to enter by the Military Armistice Commission." North Korea has violated this condition on a variety of occasions. While many alleged breaches have been denied by North Korea, the former leader of North Korea, Kim Il Sung, personally acknowledged two particular breaches—a 1976 axe murder of two U.S. army security officers in the joint security area and a 1996 North Korean submarine excursion through the demilitarized zone into South Korea.

If the United States were to cite these Armistice breaches in resuming military action in North Korea by striking North Korea's nuclear facilities, it would not be the first time the US has implemented such a justification to seek a military goal unrelated to the actual breach of a ceasefire.

On at least two occasions the United States has used some insignificant action such as a minor cease-

¹⁸⁶ Mark Popiel, Redrafting the Right of Self-Defense in Response to International Terrorism, 6 GONZ. J. INT'L L. 1, 8 (2012).

¹⁸⁷ Id.

¹⁸⁸ See Donald W. Boose, Jr., The Korean War Truce Talks: A Study in Conflict Termination, PARAMETERS, Spring 2000, available at https://carlisle-www.army.mil/usawc/Parameters/Articles/00spring/boose.htm.

¹⁸⁹ See Military Armistice in Korea and Temporary Supplementary Agreement, June 27, 1953, 4 U.S.T. 234, *available at* http://news.findlaw.com/cnn/docs/korea/kwarmagr072753.html.

¹⁹⁰See Chuck Downs, Over the Line: North Korea's Negotiating Strategy 103 (Aei Press, 1st ed. 1988).

fire breach as justification for taking larger military action in a country. 191

First, "In 1989, the United States invaded Panama in response to small scale armed attacks by the Panamanian Defense Forces, but accomplished the greater end of ousting General Manuel Noriega and restoring democracy." ¹⁹²

More recently, when the United States-led coalition invaded Iraq, they justified it by citing a breach of the 1991 Gulf War cease-fire agreement and related Security Council resolutions. The United States invaded Iraq in 2003 not to respond to cease-fire breaches, but rather pursue the broader military goal of destroying Iraq's alleged nuclear weapons program and removing Saddam Hussein from power. 194

The Panama and Iraq invasions show that the United States is willing to use the breach of a cease-fire or similar actions as a legal justification for taking unrelated military action including striking purported nuclear capabilities. It should be noted, however, that US actions in Panama and Iraq have both been criticized as unlawful. Some scholars have argued that the UN resolutions related to the Gulf War did not provide for military action to be taken as a result of a breach. Furthermore, it has been suggested that the invasion of Panama was unlawful because the claimed "sporadic acts of violence against U.S. personnel would not have justified the invasion 'in self defense' under Article 51 of the U.N. Charter."

The more difficult question is whether the use of such a justification would withstand legal

¹⁹¹ John Yoo, International Law and the War in Iraq, 97 Am. J. INT'L L. 563, 565 (2003).

¹⁹² Gregory E. Maggs, How the United States Might Justify a Preemptive Strike on a Rogue Nation's Nuclear Weapon Development Facilities Under the U.N. Charter, 57 SYRACUSE L. REV. 465, 485 (2006).

¹⁹³ Full Text: Iraq Legal Advice, GUARDIAN, April 28, 2005,

http://www.guardian.co.uk/politics/2005/apr/28/election2005.uk1.

¹⁹⁴See Gregory E. Maggs, How the United States Might Justify a Preemptive Strike on a Rogue Nation's Nuclear Weapon Development Facilities Under the U.N. Charter, 57 SYRACUSE L. REV. 465, 485 (2006); Full Text: Iraq Legal Advice, THE GUARDIAN, April 28, 2005, http://www.guardian.co.uk/politics/2005/apr/28/election2005.uk1.

¹⁹⁵ See Mary Ellen O'Connell, Addendum to Armed Force in Iraq: Issues of Legality, American Society of International Law (April 2003), http://www.asil.org/insigh99a1.cfm (stating "Resolution 687 contains no express authority for any state to use force")

¹⁹⁶ Louis Henkin, *The Invasion of Panama Under International Law: A Gross Violation*, 29 COLUM. J. TRANSNAT'L L. 305, 305 (1991).

scrutiny in the case of an attack on North Korea's nuclear weapons facilities. The Korean War Armistice provides for the establishment of a Commission responsible for policing the terms of the agreement, and investigating potential breaches. 197 Furthermore, the Armistice provides numerous remedies for breach: (1) "personnel of their respective commands who violate any of the provisions of this armistice agreement [must be] adequately punished[,]" and (2) [A]ny violations of th[e] Armistice Agreement [must be] [s]ettle[d] through negotiations." The only reasonable interpretation of these provisions is that the United States could not legally take military action for breach of the Armistice Agreement. Armistice Agreement provision 25(f) clearly provides settlement through negotiation as the only available legal remedy for breach of the cease-fire agreement.

Further Requirement that any Military Action Satisfy the Rules of Armed Conflict

If it is found that some military action is justified pursuant to Article 51 of the UN Charter or a breach of the Korean War Armistice Agreement, the scope of such a military action must further conform to the rules of armed conflict. 199 The International Court of Justice has previously stated that for a military action to be legal, the rules of armed conflict-proportionality, necessity and discrimination—must be satisfied.²⁰⁰ Therefore, the rules of armed conflict are given legal weight not only as customary international law but also pursuant to ICJ court opinions, which, as previously discussed, exist as the fourth source of applicable international law. ²⁰¹ Furthermore, the US, in its Naval/Marine Commander's Handbook, has explicitly recognized the applicability of the three rules of

¹⁹⁷ Military Armistice in Korea and Temporary Supplementary Agreement, June 27, 1953, 4 U.S.T. 234, at (b)(1)(19), available at http://news.findlaw.com/cnn/docs/korea/kwarmagr072753.html. ¹⁹⁸ *Id.* at 13(e), 25(f).

¹⁹⁹ See Legality of the Threat or Use of Nuclear Weapons, International Court of Justice, Advisory Opinion, 195 (July 8, 1996) [hereinafter Advisory opinion], Oil Platforms (Iran v. U.S.), I.C.J. Reports, 198-99; Military and Paramilitary Activities in and against Nicaragua (Nicaragua v. United States of America), 1986 I.C.J. Reports 94, 103.

²⁰⁰ See Advisory Opinion at 195; Oil Platforms (Iran v. U.S.), I.C.J. Reports, 198-99; Military and Paramilitary Activities in and against Nicaragua (Nicaragua v. United States of America), 1986 I.C.J. Reports 94, 103.

²⁰¹ See Charles Moxley, Nuclear Weapons and International Law in the Post Cold War World 20 (Austin & Winfield Publishers, 1st ed. 2000); Statute of the International Court of Justice, 59 Stat. 1031, art. 38 (1945), available at (http://www.icj-cij.org/documents/index.php?p1=4&p2=2&p3=0.

armed conflict.²⁰² Despite a lack of any binding effect in the Naval/Marine Commander's Handbook, the fact that the United States has explicitly recognized the force of these rules suggests that the policy of the United States is to tailor any military response to the rules.

Proportionality

The first rule of armed conflict is proportionality. The rule of proportionality . . . prohibits the use of a weapon if its probable effects upon combatant or non-combatant persons or objects would likely be disproportionate to the value of the anticipated military objective. There have been prior instances where even conventional strikes by the United States on rogue nations have been found to violate the proportionality rule. 205

In considering the proportionality of a self-defensive US military strike on North Korea's nuclear weapons program, scholars suggest that proportionality can be broken down into two factual inquiries. First—what is the extent of the prior armed attack by North Korea?²⁰⁶ Second—could the United States "destroy the nuclear weapons development facilities with only a minimum of loss of life or injury and a minimum of collateral damage to non-military targets[?]"²⁰⁷

Inquiry 1: Extent of Prior Armed Attacks by North Korea

So far the most serious likely armed attack by North Korea on South Korea–a US ally–was the March 2010 torpedo attack on a South Korean vessel, which killed 46 South Korean sailors.²⁰⁸

²⁰² See Naval Marine Commander's Handbook; Charles J. Moxley, Jr., The Sword in the Mirror – The Lawfulness of North Korea's Use and Threat of Use of Nuclear Weapons Based on the United States' Legitimization of Nuclear Weapons, 27 FORDHAM INT'L L.J. 1379, 1435-1438 (2003).

²⁰³ See Charles Moxley, Nuclear Weapons and International Law in the Post Cold War World 39-40 (Austin & Winfield Publishers, 1st ed. 2000).

²⁰⁵ See Pieter H.F. Bekker, The World Court Finds that U.S. Attacks on Iranian Oil Platforms in 1987-1988 Were Not Justifiable as Self-Defense, but the United States Did Not Violate the Applicable Treaty with Iran, AMERICAN SOCIETY OF INTERNATIONAL LAW, http://www.asil.org/insigh119.cfm (stating "the Court was not satisfied that the U.S. attacks of 1987-1988 [on Irans oil platforms] were necessary to respond to the shipping incidents in the Gulf and constituted a proportionate use of force in self-defense."); Oil Platforms (Iran v. U.S.), I.C.J. Reports, 198-99.

²⁰⁶ See Gregory E. Maggs, How the United States Might Justify a Preemptive Strike on a Rogue Nation's Nuclear Weapon Development Facilities Under the U.N. Charter, 57 SYRACUSE L. REV. 465, 493 (2006).

²⁰⁸ See Martin Fackler, A Pattern of Aggression, N.Y.TIMES, Nov. 23, 2010, http://www.nytimes.com/2010/11/24/world/asia/24north.html.

Although North Korea denies involvement, South Korean and international investigators concluded that North Korea was responsible.²⁰⁹ These 46 casualties would be weighed against a US strike on North Korean nuclear facilities despite the facilities being unrelated to the torpedo strike.

Again however, this incident provides merely a study for how a strike could be weighed against potential responses. The lack of known risk of a further imminent attack means that military action taken now in 2012 could not legitimately follow from the North Korean torpedo strike in 2010 pursuant to the more accepted view of self-defense.²¹⁰

Inquiry 2: Could the United States Destroy the Nuclear Weapons Development Facilities with Only a Minimum of Loss of Life or Injury and a Minimum of Collateral Damage to Non-Military Targets?

The second inquiry is "whether the United States could destroy the nuclear weapons development facilities with only a minimum of loss of life or injury and a minimum of collateral damage to nonmilitary targets."211

Forty-six deaths appear to be significant enough to justify some expansive action on isolated military facilities where few or no civilian casualties could be expected. However, the veil of secrecy surrounding North Korean nuclear facilities complicates the ability to precisely determine the expected loss of life and military infrastructure. Adding to that complication is the difficulty in controlling the spread of nuclear radiation after a US attack, which will be discussed *infra*.

One potential US military action could involve the use of nuclear weapons in attacking North Korean nuclear facilities. "Any proportionality analysis [of a nuclear strike] must consider the unique characteristics of nuclear weapons such as destructiveness, heat and energy output, radiation, risk of escalation, and environmental harm." Some scholars argue, "In some circumstances, [certain types

²⁰⁹ See id.

²¹⁰ See Mark Popiel, Redrafting the Right of Self-Defense in Response to International Terrorism, 6 Gonz. J. Int'l L. 1, 8 (2012).

²¹¹ Gregory E. Maggs, How the United States Might Justify a Preemptive Strike on a Rogue Nation's Nuclear Weapon Development Facilities Under the U.N. Charter, 57 SYRACUSE L. REV. 465, 493 (2006).

²¹² Robert P. Chatham, Tactical Nuclear Weapons: Lawful Use in the Aftermath of the ICJ Opinion, 37 REPORTER 41, 44 (2010).

of] nuclear weapons can be used with little collateral damage such as attacking warships on the high seas or troops in sparsely populated locales. Limited experience showed nuclear weapons causing horrendous damage, but use of small yield tactical nuclear weapons in appropriate situations would result in minimal civilian damage and casualties."²¹³

This, however, fails to consider the unknowability of the resulting political climate following the use of even small yield tactical nuclear weapons. One issue considered in submissions to the ICJ by the United States was "whether even a small scale use of nuclear weapons would violate international humanitarian law because of the risk of resultant escalation[.]"²¹⁴ The United States asserted that "[i]t seems to be assumed that any use of nuclear weapons would inevitably escalate into a massive strategic nuclear exchange, with the deliberate destruction of the population centers of the opposing sides."²¹⁵ "The United States rejected this assumption as 'speculative in the extreme."²¹⁶ Though other US sources suggest that a risk of escalation does exists.²¹⁷

Professor Charles Moxley, discussing the interplay of proportionality and escalation, asserts, "If any use would likely involve the multiple use of strategic nuclear weapons and subsequent escalation; or if even the most limited of nuclear strikes would likely precipitate escalation to broader use of nuclear, chemical and/or biological weapons; . . . it would seem the potential risks would virtually always outweigh the potential military benefits." Therefore, it appears nearly certain that any such use would fail the proportionality requirement. Hypothetically, if any factual scenario did exist wherein the benefits outweighed the risks, the precise nuclear facility or hardware to be attacked in a US strike would determine whether such an act would be proportional.

Given the extreme effects of a nuclear strike, it appears that a conventional attack would be more

²¹³ *Id.* at 44-45.

²¹⁴ CHARLES MOXLEY, NUCLEAR WEAPONS AND INTERNATIONAL LAW IN THE POST COLD WAR WORLD 131 (Austin & Winfield Publishers, 1st ed. 2000).

 $^{^{215}}$ *Id*

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²¹⁷ *Id.* at 136 (citing DOCTRINE FOR JOINT THEATER NUCLEAR OPERATIONS, Joint Pub. 3-12.1, I-5–6)

²¹⁸ *Id.* at 686.

likely to be a proportional response in a greater number of factual circumstances relating to a strike on North Korea's nuclear weapons program. However, evidence suggests that even a conventional strike on nuclear facilities may cause widespread damage and threatens to make such an attack fail the proportionality requirement.²¹⁹ If the US implements conventional weapons, the spread of radiation capable of killing or injuring humans is still possible due to the radioactive contents of the destroyed facilities. 220 A strike against a nuclear facility intended merely to disrupt its electrical generating capacity could be done without spreading radiation.²²¹ However, with a strike intended—as in the case of an attack on North Korea—"to halt the production of plutonium, it would be difficult, if not impossible, to achieve the intended military objective without releasing large amounts of high-level radiation."²²² Thus, "[t]o avoid [potentially] significant casualties and widespread environmental damage, the surgical strike would have to be conducted before nuclear material is introduced into the facility."223 Since North Korea has already introduced nuclear materials into its facilities, significant casualties and widespread environmental damage are now possible due to the release of radiation.

Although the possibility that remote facilities may exist where casualty levels could remain minimal, the existence in radiation releases in both nuclear and conventional strikes suggests that significant risks remain even to far away population centers. Given the potential for widespread injury, the relatively minimal nature of North Korean armed attacks thus far suggests that in most factual scenarios, both types of US strike against North Korean nuclear facilities would fail to meet the proportionality requirement.

Necessity

The second rule of armed conflict is necessity. The rule of necessity provides that "in conducting a military operation, a State, even as against its adversary's forces and property, may use only such a

 219 See David Sloss, Forcible Arms Control: Preemptive Attacks on Nuclear Facilities, 4 CHI. J. INT'L L. 39, 43-44 (2003). See id.

²²¹ See id. at 43.

²²² *Id*. at 44.

²²³ *Id.* at 45.

level of force as is 'necessary' or 'imperatively necessary' to achieve its military objective, and that any additional level of force is prohibited as unlawful."²²⁴ Furthermore, "[t]he rule of necessity requires that the strike appear likely to yield a concrete military benefit."²²⁵ The ICJ has framed the necessity requirement as considering "whether a military action taken by a nation in self-defense is necessary to prevent-the "main danger" facing that nation."²²⁶ Academics have suggested that "[t]he United States most likely would argue that, regardless of what armed attack . . . North Korea committed, the main danger that the United States and its allies face . . . stems from their nuclear weapons development facilities. The facilities are the 'peril' against which the United States would feel a need to act."²²⁷ Under this construction, the military objective would be shifted away from responding to North Korea armed attacks such as the torpedo strike and towards dismantling North Korea's nuclear program under the guise of this program being labeled the main danger.

If this "main danger" construction could allow for a focus on dismantling North Korea's nuclear program, it must also be considered what type of force is necessary to achieve this broadened military goal. It is clear that "a nuclear strike would fail to meet the requirement of necessity in circumstances where the mission could be handled by conventional weapons." It is not clear that conventional weapons would succeed in taking out North Korea's nuclear capabilities. For any preemptive action to be effective, it "would require locating all assets that could be used to make nuclear weapons; having the ability to destroy all targets; and preventing North Korea from retaliating against the United States or any of its neighbors . . . in a manner that undermines regional will to eliminate North Korea's

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Development Facilities Under the U.N. Charter, 57 SYRACUSE L. REV. 465, 494 (2006).

²²⁴ CHARLES MOXLEY, NUCLEAR WEAPONS AND INTERNATIONAL LAW IN THE POST COLD WAR WORLD 52 (Austin & Winfield Publishers, 1st ed. 2000).

Nicaragua, 1986 I.C.J. at 365; Gregory E. Maggs, How the United States Might Justify a Preemptive Strike on a Rogue Nation's Nuclear Weapon Development Facilities Under the U.N. Charter, 57 SYRACUSE L. REV. 465, 494 (2006).
 Gregory E. Maggs, How the United States Might Justify a Preemptive Strike on a Rogue Nation's Nuclear Weapon

²²⁸ CHARLES MOXLEY, NUCLEAR WEAPONS AND INTERNATIONAL LAW IN THE POST COLD WAR WORLD 705 (Austin & Winfield Publishers, 1st ed. 2000).

²²⁹ See DAVID J. BISHOP, DISMANTLING NORTH KOREA'S NUCLEAR WEAPONS PROGRAMS 6, (Strategic Studies Institute, 2005), available at http://www.strategicstudiesinstitute.army.mil/pdffiles/pub599.pdf.

nuclear weapons.",230

North Korean missile sites and completed weapons locations are not all precisely known and likely scattered among a variety of bunkers buried deep underground.²³¹ Therefore, "[i]t would be extremely difficult to attack all targets with complete confidence that no nuclear capability would survive for retaliatory attacks[.]"²³²

The United States has developed conventional bunker busting bombs specifically "to take out the hardened fortifications built by Iran and North Korea to cloak their nuclear programs."²³³ The most powerful of US conventional bunker busters can reach a depth of up to 200 feet before exploding.²³⁴ No direct references to the depth of North Korea's bunkers could be found. However, Iran has reportedly built bunkers as deep as 260 feet with the help of North Korean construction experts.²³⁵ This suggests that North Korea is capable of digging bunkers deep enough to withstand US conventional bunker-busting weapons. Additionally, common sense dictates that even if numerous precisely targeted US conventional strikes could bust North Korean bunkers, such a strike could not neutralize the risk posed by a likely scattered nuclear arsenal in a variety of unknown underground locations.

Therefore, even if the nuclear reactors on the surface could be effectively dismantled by a conventional strike, North Korean bunker building capabilities and the likely existence of completed warheads and missiles scattered underground suggests that a conventional strike, though not using force beyond what is required to achieve the military objective, is not likely to yield a concrete military benefit. Such an ineffective US strike would also likely allow North Korea to retaliate significantly

²³⁰ Id.

²³¹ See id.

²³³ Adam Entous & Julian Barnes, Pentagon Seeks Mightier Bomb vs. Iran, WALL STREET JOURNAL, Jan. 28, 2012, http://online.wsj.com/article/SB10001424052970203363504577187420287098692.html.

²³⁵ See Con Coughlin, North Korea to Help Iran Dig Secret Missile Bunkers, TELEGRAPH, June 12, 2005, http://www.telegraph.co.uk/news/worldnews/asia/northkorea/1491896/North-Korea-to-help-Iran-dig-secret-missilebunkers.html; id.

against South Korea or US interests in the region. A conventional strike would likely fail the necessity requirement under the rules of armed conflict.

Since conventional weapons likely fail to meet the requirements of necessity due to the existence of underground bunkers, the potential for a nuclear strike should also be considered. Some have argued that nuclear-equipped bunker busters could reach depths beyond that of conventional bunker busters²³⁶ and thus would be necessary to achieve the military goal of eliminating North Korea's nuclear weapon capabilities. Current US nuclear bunker busters can penetrate a depth of 210 feet.²³⁷ This is slightly deeper than the most powerful conventional bunker busters. If the US were to use its most powerful nuclear weapon to create a bunker buster, it would be capable of reaching 1000 feet below the surface.²³⁸ The depth such a bomb would reach appears to be flexible based on the yield of the weapon²³⁹ and thus if the US knew how deep the bunkers were, it could hypothetically use a bomb precisely as powerful as necessary to destroy the bunkers. Therefore, ignoring the potential violations of the other rules of armed conflict, a US nuclear strike could meet the necessity requirement. However, "Deeper bunkers can be constructed with modern tunneling equipment, and are essentially invulnerable to nuclear attack."²⁴⁰ Therefore, if North Korea were to have bunkers deeper than 1000 feet, even nuclear bunker busters would fail to be likely to yield a concrete military benefit and violate the rule of necessity.

Discrimination

The third rule of armed conflict is discrimination. The rule of discrimination "prohibits the use of a weapon that cannot discriminate in its effects between military and civilian targets."²⁴¹ This means

²³⁶ See Lisbeth Gronlund & David Wright, et at., Earth-Penetrating Weapons, UNIONS OF CONCERNED SCIENTISTS (May 2005), http://www.ucsusa.org/nuclear weapons and global security/nuclear weapons/technical issues/earth-penetratingweapons.html.

²³⁷ See id. 238 See id.

²³⁹ See id.

²⁴¹ CHARLES MOXLEY, NUCLEAR WEAPONS AND INTERNATIONAL LAW IN THE POST COLD WAR WORLD 64 (Austin & Winfield Publishers, 1st ed. 2000).

that "the weapon must have been intended for—and capable of being controlled and directed against a military target, and the civilian damage must have been unintended and collateral or incidental."242 Thus, a weapon must have both an innate ability to discriminate and an ability to discriminate in each instance of its use.²⁴³

The United States has highly sophisticated conventional weapons capable of GPS-guided discriminate targeting.²⁴⁴ These weapons meet the requirement that the weapons used be able to inherently discriminate. The second aspect of the discrimination inquiry—the intended use in a given instance—is a factual inquiry to be considered on a case-by-case basis with conventional weapons. As previously stated, North Korean nuclear facilities appear to be in remote locations and, as a result, an argument can be made that intended uses are likely to be discriminate in many situations. However, the "requirement of [discrimination] applies to the effects of the weapon being used."²⁴⁵ Therefore, it must also be considered that the effects of even a conventional attack would likely spread radiation from destroyed nuclear reactors.²⁴⁶ Just as "radiation-emitting debris that nuclear explosions produce can be carried great distances by the winds, the waters, the soil",247 so too will the radiation released by a destroyed nuclear reactor be carried away indiscriminately by the elements. Therefore, a strong argument can be made that even a conventional strike on North Korea's nuclear weapons program would fail the discrimination prong of the rules of armed conflict.

It can further be considered whether a US nuclear strike would meet the discrimination requirement. Although the ICJ advisory opinion found "the threat and use of nuclear weapons

 $^{^{242}}$ Id

²⁴³ See Michael N. Schmitt, The Principle of Discrimination in 21st Century Warfare, 2 YALE HUM. RTS. & DEV. L.J. 143,

²⁴⁴ See Gary W. Lane, New Conventional Weapons, Reducing Reliance on a Nuclear Response Toward Aggressors, 27 (April 2001) (unpublished research report submitted in partial fulfillment of the graduation requirements, Air University Maxwell AFB, AL), available at http://www.dtic.mil/dtic/tr/fulltext/u2/a407719.pdf.

²⁴⁵ Charles Moxley & John Burroughs et at., Nuclear Weapons and International Law: A Nuclear Nonproliferation Regime For the 21st Century, 34 FORDHAM INT'L L.J. 595, 614-15 (2010).

²⁴⁶ See infra footnote 252 for a discussion on whether or not radiation effects are included in the discrimination analysis.

²⁴⁷ CHARLES MOXLEY, NUCLEAR WEAPONS AND INTERNATIONAL LAW IN THE POST COLD WAR WORLD 64 (Austin & Winfield Publishers, 1st ed. 2000).

generally unlawful[,]" it declined to rule on the question of whether low-yield nuclear weapons could ever be used in a discriminatory fashion, as the United States argued was possible.²⁴⁸ A substantial amount of scholarship says that nuclear weapons are inherently indiscriminate.²⁴⁹ This can be determined by considering the effects of nuclear weapons. "[T]he effects of nuclear weapons, including radiation, are inherently uncontrollable. They are not subject to the control of the state using them or of any force on earth. Even the blast, heat, and electromagnetic impulse effects of nuclear weapons are beyond human control." This inherent uncontrollability renders "nuclear weapons, even low-yield nuclear weapons . . . unlawful." 251

A central consideration in both conventional and nuclear strikes on nuclear facilities is whether the resulting radiation is subject to the rule of discrimination. One scholar framed a portion of the discrimination test by stating, "It is unlawful to use weapons whose effects are incapable of being controlled and therefore cannot be directed against a military target. If the state cannot maintain such control – in one of those targeting rooms – the state cannot use that weapon in compliance with the rule of discrimination." Additionally this controllability issue with regards to radiation has been explained as:

We know there is a huge blast effect and an electromagnetic effect which itself can cause huge consequences, but the effects also include the release of radiation. Can nuclear weapons possibly meet these standards which call for control for controllability of effects and call for distinction between legitimate [and illegitimate] . . . ? The answer seems [to be no]. 253

The United States, in its ICJ brief, provides a counterargument to the inclusion of radiation in considering controllability. The US argues that nuclear weapons would be implemented for their blast

 $^{^{248}}$ Charles Moxley & John Burroughs et at., Nuclear Weapons and International Law: A Nuclear Nonproliferation Regime For the 21st Century, 34 FORDHAM INT'L L.J. 595, 642-44 (2010). 249 $_{Id}$

²⁵⁰ *Id.* at 644.

²⁵¹ *Id.* at 644.

²⁵² Nuclear Weapons and International Humanitarian Law, ABA Summary Report and Transcript 12, April 20. 2012, available at http://lcnp.org/pubs/ABA-2012.pdf.
²⁵³ Id

and heat effects and not centrally for their radiation.²⁵⁴ The US argues that since "the ongoing and outwardly spreading radiation effects would not have been the focus of its intent in using the weapon . . . the use would not to be unlawful."²⁵⁵ Essentially, the US suggests that side effects should not be considered in regards to controllability.

The US argument is unpersuasive given that "[r]adioactive fallout may be the most dangerous effect of a nuclear explosion." Despite the significant immediate blast and heat effects, the overwhelming effect of such weapons is radiation. Common sense dictates that the appropriate determination is that the most hazardous effect of a weapon should not be disregarded in considering its controllability.

Additional ICJ Requirement: Extreme Circumstances

Finally, when considering preemptive nuclear strikes, it should be remembered that the ICJ remains "equivocal as to the scope of a State's right to use nuclear weapons for self-defense." In addition to being required to satisfy the rules of armed conflict, any use of nuclear weapons must also satisfy the requirement that it be "an extreme circumstance of self-defense, in which [the State's] very survival would be at stake."

North Korea's current delivery systems fail to pose a threat to the United States sufficient to constitute a situation in which the United States' very survival is at stake. If North Korea were to eventually reach a level of capability sufficient to create such a threat, we would have to still apply the rules of proportionality, necessity and discrimination and the foregoing analysis suggests that significant challenges remain in proving that any of these rules, let alone all of them, could possibly be satisfied.

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²⁵⁴ See Charles Moxley & John Burroughs et at., Nuclear Weapons and International Law: A Nuclear Nonproliferation Regime For the 21st Century, 34 FORDHAM INT'L L.J. 595, 656-57 (2010).

²⁵⁶ Weapons Basics, NUCLEAR FILES.ORG, http://www.nuclearfiles.org/menu/key-issues/nuclear-weapons/basics/weapons-basics.htm.

²⁵⁷ CHARLES MOXLEY, NUCLEAR WEAPONS AND INTERNATIONAL LAW IN THE POST COLD WAR WORLD 174 (Austin & Winfield Publishers, 1st ed. 2000).

²⁵⁸ *Id.* (citation omitted).

Conclusion and Outlook

Legal frameworks, such as the UN Charter, NPT, Agreed Framework and IAEA Safeguards Agreement, have failed to materially control North Korea nuclear weapons development. The failure of such measures is due to a lack of adequate enforcement mechanisms. This lack of adequate enforcement mechanisms is the result of such enforcement existing in the realm of politics rather than law. Indirectly, North Korea will likely suffer a loss of reputation as a consequence but, given the continuing nature of North Korean nuclear weapons development, this has not been a successful deterrent.

In response to the failure of current legal regimes to contain North Korean nuclear weapons development, the United States has a variety of approaches it can pursue such as engagement, containment, engagement/containment hybrid and military action. The engagement/containment hybrid model appears to provide the most attractive solution given the past failures of pure engagement and containment approaches as well as the legal and practical difficulties concerning military action.

However, the engagement/containment model has clear difficulties of its own. The United States continues to maintain the second largest nuclear arsenal in the world.²⁵⁹ North Korea would be justified in wondering why the United States may continue to maintain a vast arsenal of nuclear weapons while North Korea may not. In light of the foregone analysis which suggested the near certain failure of the use or threat of use of nuclear weapons to meet the requirements of international law, no legitimate justification exists for any country to maintain an arsenal. To prevent North Korean nuclear weapons proliferation, the United States must set a good example and discontinue its own nuclear weapons program, which serves no legitimate purpose given the legal framework governing nuclear weapons. Furthermore, the United States must also conform to their own treaty requirements, as was shown to be lacking by their questionable withdrawal from the ABM Treaty, if it is to expect other

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²⁵⁹ See Status of World Nuclear Forces, FEDERATION OF AMERICAN SCIENTISTS (May 7, 2012), http://www.fas.org/programs/ssp/nukes/nuclearweapons/nukestatus.html.

countries to conform to their own obligations.	A world safe from nuclear weapons must be a world of
parity.	