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NUCLEAR WEAPONS TARGETING: THE EVOLUTION OF LAW AND U.S. POLICY

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> *The world will note that the first atomic bomb was dropped on Hiroshima, a military base. That was because we wished in this first attack to avoid, insofar as possible, the killing of civilians. But that attack is only a warning of things to come. If Japan does not surrender, bombs will have to be dropped on her war industries and, unfortunately, thousands of civilian lives will be lost. I urge Japanese civilians to leave industrial cities immediately, and save themselves from destruction.*[1]

I. Introduction

Hiroshima was not a military base, but a city in Japan, when it was struck with the first ever military atomic bomb strike at 8:15 A.M. on August 6, 1945. President Truman's diary entry from July 25, 1945, recorded his recollection of a conversation that he had with Secretary of War Henry Stimson the previous day during which the President instructed Stimson to use the atomic bomb "so that military objectives and soldiers and sailors are the target and not women and children."[2] He also wrote

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that he and his Secretary of War were agreed that "[t]he target will be a purely military one."[3] Nothing else in the historical record appears to corroborate President Truman's recollection of events. President Truman's classification of the bombing as a purely military objective has caused some historians to speculate that the President engaged in "self-deception."[4] Under the mid-twentieth century military's targeting lexicon, however, the President's understanding of Hiroshima as a military target was accurate.

Although Hiroshima was not a military base as understood today, it was a "military city" as it housed the 2d Army Headquarters, which commanded the defense of all of southern Japan.[5] The city was also a communications center, a storage point, and an assembly area for troops.[6] While no specific warning to the residents of Hiroshima preceded the nuclear attack, a general warning was issued in the form of the Potsdam Declaration on July 26, 1945, where the allies promised the "complete destruction of the Japanese armed forces" and "utter devastation of the Japanese homeland" if Japan failed to surrender its armed forces.[7] Up until the time of the strike, Hiroshima had been spared from the conventional fire-bombing that devastated other Japanese military-related cities.

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[1] President Harry S. Truman, Radio Report to the American People on the Potsdam Conference, August 9, 1945, *reprinted in* PUBLIC PAPERS OF THE PRESIDENTS, HARRY S. TRUMAN, http://www.trumanlibrary.org/publicpapers/?pid=104.

[2] Notes by Harry S. Truman on the Potsdam Conference, July 25, 1945, *reprinted in* PAPERS OF HARRY S. TRUMAN: PRESIDENT'S SECRETARY'S FILE, https://www.Truman library.rg/whistlestop/study_collections/bomb/large/documents/index.php?pagenumber=5&documentid=63&documentdate=1945-07-17&studycollectionid=abomb&groupid.

[3] *Id.*

[4] Barton J. Barnstein, *The Struggle over History: Defining the Hiroshima Narrative*, *in* JUDGEMENT AT THE SMITHSONIAN, 177 (Phillip Noble, ed., 1995); J. SAMUEL WALKER, PROMPT AND UTTER DESTRUCTION: TRUMAN AND THE USE OF ATOMIC BOMBS AGAINST JAPAN 62 (2004); WILSON MISCAMBLE, THE MOST CONTROVERSIAL DECISION 71 (2011).

[5] The Manhattan Eng'r Dist. of the U. S. Army, *The Atomic Bombings of Hiroshima and Nagasaki*, June 29, 1946, at 19 [hereinafter Manhattan Eng'r Dist.].

[6] *Id*. at 19.

[7] Proclamation Calling for the Surrender of Japan, Approved by the Heads of the Government of the United States, China, and the United Kingdom, July 26, 1945 *reprinted in* U.S. Dep't of State, FOREIGN RELATIONS OF THE UNITED STATES: DIPLOMATIC PAPERS: THE CONFERENCE OF BERLIN (THE POTSDAM CONFERENCE), 1945 1474–76 (1960).

Between 70,000 and 140,000 Japanese were killed by the resulting atomic attack, many of whom were civilians.[8]

On the day the Hiroshima bomb was dropped, the White House issued a press release announcing the new weapon and its use. The statement repeated the Potsdam warning and explained:

> We are now prepared to obliterate more rapidly and completely every productive enterprise the Japanese have above ground in any city. We shall destroy their docks, their factories, and their communications. Let there be no mistake; we shall completely destroy Japan's power to make war.[9]

The United States waited for the Japanese reaction.

Japanese leadership received reports of devastation in Hiroshima and the media reports of U.S. warnings. In response, Emperor Hirohito told his foreign minister to "make such arrangements as to end the war as quickly as possible."[10] Surrender, however, was not immediate. While the Japanese civilian leadership began deliberating over acceptable terms for surrender, the military remained highly resistant to the notion of surrendering.[11]

At 11:02 A.M. on August 9, 1945, Nagasaki became the second city to be struck by an atomic bomb.[12] Nagasaki was an alternate target for the

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[8] An estimated 70,000 people were killed in Hiroshima on August 6, 1945. U.S. DEP'T OF ENERGY, THE MANHATTAN PROJECT: MAKING THE ATOMIC BOMB 96 (2010), https://www.osti.gov/opennet/manhattan-project-history/publications/Manhattan_Project_2010.pdf. The death toll rose to 140,000 by the end of 1945, and to 200,000 by the end of five years. *Id*.

[9] Press release by the White House, August 6, 1945, at 2. Ayers Papers, Subject Files, http://www.trumanlibrary.org/whistlestop/study_collections/bomb/large/documents/index.php?documentdate=1945-08-06&documentid=59&pagenumber=1.

[10] WALKER, *supra* note 4, at 81.

[11] MISCAMBLE, *supra* note 4, at 96.

[12] Manhattan Eng'r Dist., *supra* note 5, at 5. Due to time zone differentials, the evening of August 9 in Washington, D.C., would have been the morning of August 10 in Japan. The second atomic bomb was originally to have been dropped on August 11, 1945, but was moved forward due to weather concerns. MISCAMBLE, *supra* note 4, at 90; WALKER, *supra* note 4, at 78.

second bomb; the primary target was the city of Kokura.[13] Nagasaki's military industry made it significant. The atomic bomb landed between the two principal targets in the city: the Mitsubishi Steel and Arm Works and the Mitsubishi-Uramaki Ordnance Works (Torpedo Works).[14] The designated Nagasaki bomb site was obscured by clouds, so the B-29 crew dropped the bomb over a stadium and it detonated over a Roman Catholic cathedral.[15] According to a 1946 post war analysis, the location of the actual detonation point was ideal for destroying the military related industries; other locations would have destroyed more residential areas and been less effective at destroying industrial targets.[16] Unfortunately, a hospital and medical school, located 3000 feet from the stadium, were also annihilated.[17] The bomb killed between 40,000 and 70,000 people.[18]

The atomic strikes on Hiroshima and Nagasaki were lawful under the laws of war existing in 1945. These attacks also represent the only two instances of atomic weapon strikes in history. They illustrate the definitional confusion existing with respect to the U.S. classification of lawful military objects exclusive of civilian objects. If some historians believe President Truman was engaged in "self-deception" in labeling Hiroshima a military target, those historians may be equally perplexed by modern American usage of law-of-war target labels.

This article explores the history of the legal aspects of targeting, specifically addressing the evolution of the law of war related to strategic bombing and belligerent reprisals—both prior to August 1945 and in the seventy years since.[19] The article also examines the interaction between the law of war and U.S. nuclear weapon targeting policy during those

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[13] WALKER, *supra* note 4, at 78. Kokura housed one of the largest arsenals in Japan, a structure surrounded by other industrial structures. Memorandum for Major General L.R. Groves, Summary of Target Committee Meetings on 10 & 11 May 1945 at 3, May 12, 1945 [hereinafter Target Committee Meeting of May 12, 1945].

[14] Manhattan Eng'r Dist., *supra* note 5, at 24.

[15] WALKER, *supra* note 4, at 79; MISCAMBLE, *supra* note 4, at 93.

[16] Manhattan Eng'r Dist., *supra* note 5, at 35.

[17] WALKER, *supra* note 4, at 79.

[18] An estimated 40,000 people were killed by the bomb on August 9, 1945. U.S. DEP'T OF ENERGY, *supra* note 8, at 97. The death toll rose to 70,000 by the end of 1945, and to 140,000 by the end of five years. *Id.*

[19] Common alternative terms for "law of war" are the "law of armed conflict" and "international humanitarian law." U.S. DEP'T OF DEF., DOD LAW OF WAR MANUAL (Dec. 2016) [hereinafter LAW OF WAR MANUAL]

periods.[20] While nuclear targeting policy was consistent with law at the close of the Second World War, it subsequently struggled to justify its conformity with international law norms as they continued to evolve. This struggle is evident when assessing Cold War concepts like city targeting, "bonus damage," and retaliation against law-of-war principles such as distinction and proportionality. During the Cold War the U.S. and its allies faced an existential threat to survival from a block of nuclear-armed states ideologically seeking world domination. This threat forced policy makers to develop terrifying strategies to deter war—threating evil so as not to do it.[21] In this environment, legal restraints could not credibly support deterrence. Since the end of the Cold War, nuclear threats have become more varied and regionalized. In this new international security environment, the U.S. accepted law-of-war limitations on nuclear weapons.[22] Understanding and applying those limitations, however, is challenging to say the least. The unique nature of nuclear weapons, combined with treaty obligations, has created a *lex specialis* of nuclear targeting.[23]

In outlining these legal and policy developments, certain trends become evident: limiting attacks to military objectives has become a

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[20] The history and law in this paper are based exclusively on unclassified documents and sources in the public domain.

[21] MICHAEL WALZER, JUST AND UNJUST WARS 274 (4th ed., 2006).

[22] This article does not engage in the broader debate on the legality of nuclear weapons, other than to discuss the targeting implications of proceedings at the International Court of Justice (ICJ) from 1994 to 1996. The challenges to the lawfulness of nuclear weapons can be found elsewhere. *See, e.g.*, *Shimoda v. State*, digested in 58 AM. J. INT'L. L. 1016 (1964) (Japanese case in which the Government of Japan defended the nuclear strikes on Hiroshima and Nagasaki as lawful, but the Tokyo district court found the attacks violated international law); CHARLES MOXLEY, JR., NUCLEAR WEAPONS AND INTERNATIONAL LAW IN THE POST COLD WAR WORLD (2000) (notable for Robert McNamara's foreword as well as the book's constant use of extended extracts of U.S. military service manuals and other sources to argue that the principles of law make nuclear weapons unlawful); JAMES SPAIGHT, THE ATOMIC PROBLEM (1948) (notable because of the author's significant influence in early airpower law). The contrary position can be found in sources cited throughout this article. The most complete debate on the subject can be found in the statements by nations flowing from the 1995 ICJ litigation in response to the Request by the United Nations General Assembly for an Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons,://www.icj- cij.org/docket/index.php?p1=3 &p2=4&k=e1&case=93&code=anw&p3=1.

[23] *C.f.* LAW OF WAR MANUAL, *supra* note 19, ¶6.5.1. The MANUAL states: "The law of war governs the use of nuclear weapons, *just as* it governs the use of conventional weapons." *Id.* ¶6.18 (emphasis added). As will be made clear throughout the paper, the law of war is applicable to nuclear weapons, but it is not necessarily identical to that applicable for conventional weapons.

critical legal requirement; the doctrine belligerent reprisals remain an important part of nuclear weapon policy and deterrence theory; public expectations of minimizing collateral damage are increasing and may drive policy debates on the nature of the nuclear force; and the law of war applicable to nuclear war remains abstract due to the extraordinary levels of destruction posed by the weapons. These trends inform two conclusions: first, abstractions in the law, while terrifying to populations living with the specter of nuclear war, may help the nuclear deterrence mission by keeping potential adversaries unsure of the exact parameters of possible responses; second, legal concerns with nuclear weapon targeting should shape policy debates over the nature of the U.S. arsenal.

II. Law and Practice Developments Prior to Nuclear Weapon Use

A. Early Law of War Customs and Rules

Prior to the twentieth century, the humanitarian aspects of the law of war developed slowly based upon state practices and scholarly works. Christian just war theory arose over the medieval period, but it did not prevent outright slaughter of civilians. The Seventeenth Century jurist Hugo Grotis and the Eighteenth Century diplomat Emmerich de Vattel were highly influential scholars, but their works did not represent a codified, internationally accepted set of specific rules enforced by a court. International law would generally be upheld on concepts of reciprocity.[24]

Nations developed sanctions beyond general reciprocity to address breaches of international law.[25] Grotius recognized that such violations could be enforced by violent means.[26] He found historical examples of a state's right to seize or detain citizens of other states in violation of international law as compensation for wrongs, as well as the right of reprisal, where states authorized the seizure of private property of the subjects of another state.[27] Reprisals amounted to "informal war" as they could be undertaken to enforce rights short of a full declaration of war.[28] Reprisals, as Letters of Marque, were also regularly authorized during

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[24] *See generally* Sean Watts, *Reciprocity and the Law of War*, 50 HARVARD INT'L L. J. 365 (2009).
[25] FRITS KALSHOVEN, BELLIGERENT REPRISALS 1-10 (2d ed., 2005).
[26] HUGO GROTUS, THE LAW OF WAR AND PEACE 284 (1949).
[27] *Id.*
[28] *Id.*

warfare.[29] Vattel explained that violations of the law of war would be "condemnable at the tribunal of conscience." While he also recognized the right of reprisal, he expanded on retorsion and retaliation as additional responses for violations.[30] Retorsion allowed a sovereign to treat the citizen of another country in the same manner as that country treated the sovereign's citizens.[31] Retaliation responded to a law violation with a violation in kind. Vattel cautioned against retaliation as unjust because the penalties would be felt by people other than those who decided to violate the law in the first place.[32] Nonetheless, Vattel recognized that retaliation was lawful so long as punishments were proportionate to the original evil.[33] In 1836, the American lawyer Henry Wheaton viewed retaliation as lawful only to bring an enemy back into observance of the law after it had violated "the established usages of war" and no other means of restraining the enemy existed.[34] One of the major shortcomings with these remedies for violations of law was uncertainty and disagreement over the specific rules, especially when the rules were articulated by individual lawyers rather than by governments.

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[29] Theodore Richard, *Reconsidering the Letter of Marque: Utilizing Private Security Providers Against Piracy*, 39 PUBLIC CONTRACT L. J. 411, 423-28 (2010).

[30] EMMERICH DE VATTEL, THE LAW OF NATIONS OR THE PRINCIPLES OF NATURAL LAW Book 2, Chap. 18 § 342; Book III, Chap. 8 § 137 (1758), http://oll.libertyfund.org/titles/2246; Randall Lesaffer, *Siege Warfare and the Early Modern Laws of War* 37(Tilburg Working Paper Series on Jurisprudence and Legal History, Paper No. 06-01, 2006), http://ssrn.com/abstract=926312.

[31] VATTEL, *supra* note 30, § 341.

[32] Vattel wrote:

> Retaliation, which is unjust between private persons, would be much more so between nations, because it would, in the latter case, be difficult to make the punishment fall on those who had done the injury. What right have you to cut off the nose and ears of the [a]mbassador of a barbarian who had treated your [a]mbassador in that manner? . . . The only truth in this idea of retaliation is, that, all circumstances being in other respects equal, the punishment ought to bear some proportion to the evil for which we mean to inflict it,—the very object and foundation of punishment requiring thus much.

Id. § 339.

[33] *Id*.

[34] HENRY WHEATON, ELEMENTS OF INTERNATIONAL LAW 253-54 (1836), https://archive.org/details/elementsinterna02wheagoog. Wheaton also recognized reprisals for property seizures during war (general reprisals) or as remedies to obtain satisfaction from another nation short of war (specific reprisals). *Id*. at 210. He cast retorsion as reciprocity. *Id*. at 218.

B. Early Codification Efforts

In May of 1863, the United States War Department issued General Orders No. 100, commonly called the "Lieber Code" after its author, Professor Francis Lieber, a veteran of the Prussian Army during the Napoleonic Wars. Lieber's work was an early, comprehensive, government-issued codification of the rights and obligations of all parties to a conflict and was immediately influential throughout Europe.[35] It defined military necessity as "those measures which are indispensable for securing the ends of the war, and which are lawful according to the modern law and usages of war."[36] This regulation recognized that the death of civilians and destruction of their property during war may be unavoidable, but should never be wanton.[37] It also codified an early form of the principle of distinction, stating, "the unarmed citizen is to be spared in person, property, and honor so much as the exigencies of war will admit."[38] At the same time, the Lieber Code also recognized that a besieged area could be lawfully starved during war, and that the civilian population in such an area could lawfully be prevented from leaving by besieging forces.[39] Lieber understood that retaliation was an essential aspect of international law and the law of war, but characterized it as "the sternest feature of war."[40] It was only to be used as "a means of protective retribution" after careful inquiry into the facts and character of the underlying misdeeds.[41] Lieber's construct of retaliation suggested that it could be used to punish an adversary.[42] Harsh measures like starvation of civilian populations and retaliation were all permitted under the Lieber Code, which held, "The more vigorously wars are pursued, the better it is for humanity. Sharp wars are brief."[43] The Lieber Code became the building block for

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[35] JOHN FABIAN WITT, LINCOLN'S CODE: THE LAWS OF WAR IN AMERICAN HISTORY 2, 343 (2012).

[36] U.S. WAR DEP'T, THE 1863 LAWS OF WAR, General Orders No. 100, *Instructions for the Government of the Armies of the United States in the Field*, art. 14 (2005) [hereinafter THE LIEBER CODE].

[37] *Id*. arts. 15, 44.

[38] *Id.* art. 22.

[39] *Id.* arts. 17, 18.

[40] *Id.* art. 27.

[41] *Id.* art. 28.

[42] Watts, *supra* note 24, at 392. The wording has also been read to indicate that Lieber Code reprisals would not include measures for revenge, but to "halt and prevent the recurrence of the original, or similar, offending acts." Shane Darcy, *The Evolution of the Law of Belligerent Reprisals*, 175 MIL. L. REV. 184, 188 (2003).

[43] THE LIEBER CODE, *supra* note 36, art. 29.

subsequent international agreements.[44] It also left the door open for wartime destruction on a massive scale.

In 1874 delegates from major European nations met in Brussels to consider questions on the conduct of wars and issued a declaration on the laws and customs of war based on the Lieber Code.[45] The convention addressed several concepts relevant to targeting issues. For example, belligerents were forbidden from destruction "not imperatively required by the necessity of war."[46] The delegates also agreed that fortified places alone could be besieged.[47] An attacking force was required to warn civilian authorities in advance of attack unless surprise was necessary, and was required to take steps to spare "as far as possible, buildings devoted to religion, arts, sciences and charity, hospitals, and places where sick and wounded are collected . . . ."[48] Despite discussions, delegates were unable to reach agreement on retaliation.[49] Belgium's delegate believed the doctrine was odious and refused to enshrine it in a treaty.[50] The declaration produced by the conference was not ratified because major countries, including Great Britain and Germany, rejected it.[51] While the conference failed to garner support from governments, it influenced military manuals.[52]

C. The Hague Conventions

Negotiated around the turn of the century, the Hague Conventions were the first major multilateral treaties to address targeting rules.[53] These

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[44] A. PEARCE HIGGINS, THE HAGUE PEACE CONFERENCES AND OTHER INTERNATIONAL CONFERENCES CONCERNING THE LAWS AND USAGES OF WAR 256-57 (1909); WITT *supra* note 35, at 3.

[45] Original delegates were from Austria, Belgium, France, Germany, Great Britain, Greece, Italy, the Netherlands, Russia, Spain, Switzerland, and Sweden. Delegates from Turkey and Portugal came to later sessions. HIGGINS, *supra* note 44, at 257.

[46] Brussels Draft Declaration, art. 13(g), *reprinted at* HIGGINS, *supra* note 44, at 273-80.

[47] *Id*. art. 15.

[48] *Id*. art. 16-17.

[49] ISABEL HULL, A SCRAP OF PAPER: BREAKING AND MAKING INTERNATIONAL LAW DURING THE GREAT WAR 64-66 (2014).

[50] *Id*. at 65; KALSHOVEN, *supra* note 25, at 48.

[51] HULL, *supra* note 49, at 257-58.

[52] HIGGINS, *supra* note 44, at 258.

[53] The Hague Conventions were not the first treaties. The Declaration of Paris outlawed privateering and required naval blockades to be effective. Declaration of Paris, 1856,

treaties were subsequently ratified by the United States, and thereby create binding law for employment of force in the modern era—to include potential restrictions on the use of nuclear weapons.

The annexes to the Second 1899 and Fourth 1907 Hague Conventions contained the specific law-of-war rules. These prohibited the "attack or bombardment of towns, villages, habitations or buildings which are not defended . . . ."[54] The words "by any means necessary" were added to clarify that this prohibition included bombardment from the air, although the delegates were primarily concerned with projectiles from aerial balloons.[55] By its terms, the prohibition on attack or bombardment of localities only applied to those which are undefended. The representatives to the Hague conferences believed that undefended locations would be taken without a fight, so attacking them was unnecessary.[56] The regulations also required belligerents to spare buildings devoted to religion, art, science, charity, historic monuments and hospitals not otherwise used for military purposes, while simultaneously imposing a requirement for defenders to clearly mark such sites.[57] Finally, the regulations said an attacking commander "should do all he can to warn the authorities" of the impending attack, "except in the case of an assault".[58]

The 1907 Hague Conference also produced a new convention on naval warfare. Convention IX, *Bombardment by Naval Forces in Time of War*, was significant because it was the first treaty to list lawful targeting objectives and, by implication, require attacks to be directed at objects or

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reprinted in THE LAWS OF ARMED CONFLICTS: A COLLECTION OF CONVENTIONS, RESOLUTIONS, AND OTHER DOCUMENTS 1055 (Dietrich Schindler & Jiri Toman, eds., 4th ed. 2004) [hereinafter SCHINDLER & TOMAN]. The Declaration of St Petersburg prohibited "any projectile of a weight below 400 grammes, which is either explosive or charged with fulminating or inflammable substances." Declaration of St Petersburg, 1868, *reprinted in* SCHINDLER & TOMAN, at 91. Geneva Conventions, primarily dealing with the treatment of wounded soldiers, were established in 1864, then were updated in 1868 and 1906. *Id.* at 365-96.

[54] Annex to 1899 Hague II and 1907 Hague IV, *Regulations Respecting the Laws and Customs of War on Land*, art. 25, *reprinted in* SCHINDLER & TOMAN, *supra* note 53, at 74 [hereinafter Hague II and Hague IV, respectively].

[55] *Id.*; HIGGINS, *supra* note 44.

[56] W. Hays Parks, *Air War and the Law of War*, 32 AIR FORCE L. REV. 1, 15 (1990); Tami Davis Biddle, *Air Power*, *in* THE LAWS OF WAR: CONSTRAINTS ON WARFARE IN THE WESTERN WORLD 140, 143 (Michael Howard et. al., eds., 1994).

[57] Hague II and Hague IV, art. 27, *supra* note 54, at 237. "Historic monuments" were added in 1907.

[58] Hague II and Hague IV, art. 26, *supra* note 54, at 237.

people with military significance.[59] The Convention prohibited attacking undefended towns, villages, habitations or buildings.[60] The Convention made clear, "Military works, military or naval establishments, depots of arms or war material, workshops or plant [sic] which could be utilized for the needs of the hostile fleet or army, and ships of war in the harbor, are not, however, included in this prohibition."[61] Furthermore, the Convention acknowledged that military commanders would not be responsible for unavoidable collateral damage against a legitimate target.[62] The Convention also required commanders to spare buildings devoted to "public worship, art, science or charitable purposes, historic monuments, hospitals and places where the sick or wounded are collected, provided they are not used at the time for military purposes."[63] As with the rules for land warfare, the defenders had a duty to mark these protected objects.[64] Finally, the Convention imposed a warning requirement on the attacker unless military exigencies did not permit.[65] Although the 1907 verbiage differed between Convention IX and regulations in Convention IV, the targeting rules as well as obligations and authorities were intended to be the same.[66] The U.S. delegation, for example, reported that Convention IX brought "the rules of land and naval warfare into exact harmony."[67]

No provision in any of the Hague Conventions clearly prohibited or otherwise defined reprisal or retaliation, thereby keeping those doctrines alive, although undefined by international convention.[68] The United States

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[59] Parks, *Air War and the Law of War*, *supra* note 56, at 18.

[60] Convention (IX) Concerning Bombardment by Naval Forces in Time of War, art. 1, Oct. 18, 1907, *reprinted in* SCHINDLER & TOMAN, *supra* note 53, at 1080-81.

[61] *Id*. art. 2.

[62] *Id*.

[63] *Id*. art. 5.

[64] *Id*.

[65] *Id*. art. 6.

[66] Parks, *Air War and the Law of War*, *supra* note 56, at 17–8.

[67] Report of the Delegates of the United States to the Second International Peace Conference Held at the Hague from June 15 to Oct. 18, 1097, *reprinted in* U.S. Dep't of State, II PAPERS RELATING TO THE FOREIGN RELATIONS OF THE UNITED STATES WITH THE ANNUAL MESSAGE OF THE PRESIDENT TRANSMITTED TO CONGRESS DECEMBER 3, 1907, 1162 (1910).

[68] Dutch jurist Frits Kalshoven thoroughly studied the treatment of reprisals during the Conferences of 1874, 1899, and 1907, and found that the delegates did not openly address reprisals and could not deny their use in reality; however, many delegates believed reprisals prohibited by customary international law despite a lack of unanimity on the issue. Ultimately, Kalshoven concluded that reprisals, to some extent, formed a part of customary

defined reprisals as "acts of retaliation, resorted to by one belligerent against the enemy individuals or property for illegal acts of warfare committed by the other belligerent, for the purpose of enforcing future compliance with the recognized rules of civilized warfare."[69] To the United States, retaliation, the "sternest feature of war", remained an indispensable feature of international law.[70] The United States distinguished the doctrine from revenge and characterized it a "means of protective retribution" after "careful inquiry."[71]

Not only were the Hague Conventions the first multilateral treaties to address targeting issues, they were the only such treaties in place through two world wars.[72] They were of limited impact during the world wars, however, because of ambiguous language in both versions as well as differences in interpretation. First, the preamble to the Conventions recognized that military necessity would invariably dictate the conduct of belligerents.[73] As preamble language, this application of military necessity would theoretically yield to specific rules in the main document. Germany's delegation, however, uniquely saw military necessity as an exception to virtually every Hague rule and unsuccessfully attempted to have this view reflected in every article.[74] Despite the lack of clear language within individual articles, Imperial Germany treated the Hague rules as subordinate to military necessity.[75]

Second, the Conventions contained *si omnes* or "general participation" clauses which provided that when a non-party to the Conventions joined a

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international law, but the doctrine was left undeveloped during the Conferences. FRITS KALSHOVEN, *supra* note 25.

[69] U.S. WAR DEP'T, 1914 RULES OF LAND WARFARE para. 379 (1914), http://www.loc.gov/rr/frd/Military_Law/pdf/rules_warfare-1914.pdf.

[70] *Id*. para. 380.

[71] *Id*. para. 381.

[72] Parks, *Air War and the Law of War*, *supra* note 56, at 19. The treaties are still in force today.

[73] Preamble to Hague II and Hague IV, *supra* note 54, at 209.

[74] HULL, *supra* note 49, at 73, 75, 77 (2014). A 1917 decision from the German Imperial Military Court, Reichsmilitärgericht, held the Hague rules were guidelines rather than law. *Id*. at 109.

[75] *Id*. at 280.

conflict the rules would no longer be binding.[76] Several belligerents in subsequent conflicts were not parties to either Hague Convention.[77]

Third, the Hague Conventions admitted that where particular rules or prohibitions did not exist, belligerents would still be bound by the principles of international law, which was undefined.[78] This was a

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[76] 1899 Hague II and 1907 Hague IV, art. 2, *supra* note 54, at 211.

[77] The degree that the *si omnes* clauses were actually used by the belligerents to justify ignoring Hague Conventions during the wars remains unclear. The Post-World War II Nuremberg Tribunal dealt with the issue. None of the major war criminals cited the *si omnes* clause to justify totally ignoring the Hague Regulations. Reich Marshal Hermann Göring thought the regulations were outdated based on modern methods and means of warfare. 9 TRIALS OF THE MAJOR WAR CRIMINALS BEFORE THE INTERNATIONAL MILITARY TRIBUNAL 362-64 (1947) [hereinafter TRIALS OF THE MAJOR WAR CRIMINALS]. Reich Commissioner Arthur Seyss-Inquart also thought the Hague Conventions were obsolete. *Id*. vol. 16, 6. Field Marshal Albert Kesselring claimed to have followed the targeting rules in Hague Regulations. *Id*. at vol. 9, 175. German Field Marshal Alfred Jodl, claimed to have kept the Hague Regulations and Geneva Conventions on his desk and to have observed them and international law as far as possible. *Id.* vol. 15, 341–42 and 468. German Field Marshal Wilhelm Keitel explained that Hitler was outraged over sabotage by military commando units, which Hitler characterized as terrorism in violation of the Hague Conventions justifying countermeasures. *Id.* vol. 10, 547. Reich Minister Alfred Rosenberg testified that the Hague Conventions did not apply to the fight against the Soviet Union because of the Soviet attitude towards the conventions. *Id.* vol. 11, 574–75.

Nonetheless, Albert Speer's defense lawyer argued that Article 2 of the Hague Regulations nullified the Hague rules between Germany, a Party to the Conventions, and the Soviet Union, a non-Party. *Id.* vol. 19, 180. The Tribunal rejected the argument, explaining, "[B]y 1939 these rules laid down in the [1907 Hague C]onvention were recognized by all civilized nations, and were regarded as being declaratory of the laws and customs of war . . . ." *Id.* vol. 22, 497. On the other hand, the United States and U.K. both signed and ratified a 1907 Hague Declaration relating to the discharge of projectiles and explosives from balloons, but subsequently ignored it because of a *si omnes* clause and because other major nations like France, Germany, Italy, Japan and Russia did not sign it. JAMES SPAIGHT, AIR POWER AND WAR RIGHTS 42 (3d ed. 1947) [hereinafter AIR POWER AND WAR RIGHTS 3D]; U.S. War Dep't, 1934 BASIC FIELD MANUAL, VOL. VII, MILITARY LAW, PART TWO: RULES OF LAND WARFARE ¶ 27. Because no nation followed the restriction, it never became customary international law.

[78] This came from the clause, usually attributed to the Russian minister to the Hague conferences, F.F. de Martens. JOHN FABIAN WITT, LINCOLN'S CODE: THE LAWS OF WAR IN AMERICAN HISTORY 2, 350 (2012). The clause reads:

> Until a more complete code of the laws of war has been issued, the High Contracting Parties deem it expedient to declare that, in cases not included in the Regulations adopted by them, the inhabitants and the belligerents remain under the protection and the rule of the principles of the law of nations, as they result from the usages established among

compromise to avoid having contentious areas of disagreement derail the overall treaty efforts.[79] Some thought the clause would encourage progressive legal developments.[80] Germany's military representative to the Hague Conventions, however, believed that international law was exclusively formed by the use of force by great military powers and rejected any notion to the contrary.[81] Others have taken the preamble's language to mean that if the rules did not clearly apply to facts, then the legal obligations of the Hague Conventions were not applicable.[82] The lack of clarity contributed to dire humanitarian consequences during the wars of the twentieth century.[83]

> civilized peoples, from the laws of humanity, and the dictates of the public conscience.

Preamble to 1899 Hague II and 1907 Hague IV, *supra* note 54, at 209–11. The proposal for the clause actually originated from the Belgian delegation to give protections to occupied populations. Peter Holquist, *The Russian Empire as a "Civilized State": International Law as Principle and Practice in Imperial Russia, 1874–1878*, THE NATIONAL COUNCIL FOR EURASIAN AND EAST EUROPEAN RESEARCH, COUNCIL CONTRACT No. 818-06g, 10 (2004), www.ucis.pitt.edu/nceeer/2004_818-06g_Holquist.pdf. The Belgians asked Martens to introduce it to the sub-convention in order to bridge differences between parties. *Id*. at 10, n.29. Martens thought the declaration was full of "empty phrases" and saw the declaration as a means to achieve the Convention on land warfare. *Id*. (citing Martens diary, entry for 8/12 July 1899).

[79] HULL, *supra* note 49, at 74.

[80] *Id*. at 74–75.

[81] *Id*. at 75–76.

[82] Parks, *Air War and the Law of War*, *supra* note 56, at 50.

[83] The problems in unspecified rules for targeting within the Hague Convention were similarly found with the rules for naval blockades. The silence for the naval rules arose from the failure of states to ratify the 1909 Declaration of London, an effort to further advance the maritime law of war beyond the 1856 Paris Declaration. The Declaration of London categorized types of goods which could pass through a naval blockade and types which could be interdicted and thereby stopped from reaching a blockade country. Declaration of London, arts. 22–29, *reprinted in* SCHINDLER & TOMAN, *supra* note 53, at 1115–17. Food, clothing and certain other goods were to be classified as "conditional contraband." *Id.*, art. 24. As such, these items were only subject to capture during a blockade when destined for the armed forces or Government of the blockaded state. *Id.*, art. 33. Germany held that the Declaration of London's rules had become binding as customary international law, while other nations, like Great Britain, commented that only portions of it were law. HULL, *supra* note 49, at 146–47. The disagreement as to the effect of non-ratified Declaration of London would create issues during the First World War when the United Kingdom placed a naval blockade on Germany to cripple the German economy. The controversial blockade resulted in between 300,000 and 424,000 civilian deaths from starvation. *Id.* at 169

During the First World War, for example, the Hague Regulations' prohibition on attacking undefended towns and buildings seemed to be inapplicable. This was due, in part, to the language of the convention permitting targeting of war related industry and infrastructure as well as the understanding of "undefended" towns as places which would be captured without resistance.[84] This concept did not seem to apply to areas behind enemy lines, especially when the objective of air attacks was to destroy a place rather than capture it.[85] Moreover, the Hague Regulation's language no longer fit the destructive power of new weapons like airplanes and long-range artillery.[86] These weapons, although advanced in destructive power, were only capable of area attacks and were often grossly inaccurate.[87] Aerial attacks were regularly perceived to be indiscriminate by the bombed.[88]

Therefore, civilian areas during the First World War were viewed as containing lawful targets under many conditions: when they contained defensive forces, housed national leadership, or featured industry supporting the war effort.[89] Officially, the U.S. definition of a defended town was one that was fortified, adjacent to a fort, occupied by military forces, or was one where military forces were passing through.[90] In

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[84] Parks, *Air War and the Law of War*, *supra* note 56, at 15.

[85] Paul Williams, *Legitimate Targets in Aërial Bombardment*, 23 AM. J. OF INT'L L. 570, 573 (1929).

[86] Adam Roberts, *Land Warfare: From Hague to Nuremberg*, *in* THE LAWS OF WAR: CONSTRAINTS ON WARFARE IN THE WESTERN WORLD 125 (Michael Howard et. al., eds., 1994).

[87] Biddle, *supra* note 56, at 145.

[88] COLEMAN PHILLIPSON, WHEATON'S ELEMENTS OF INTERNATIONAL LAW 178-80 (5th ed. 1916). Spaight noted, "[E]ach country was convinced that the bombardments carried out by the enemy airmen were indiscriminate" and "each was equally convinced that its own airmen exercised care and discrimination in its bombardments . . . ." JAMES SPAIGHT, AIR POWER AND WAR RIGHTS 217 (1924).

[89] For example, London was a legitimate object of attack because it contained administrative offices concerned with the direction of the war, factories which manufactured weapons, and military personnel on leave or in training. Biddle, *supra* note 56, at 144, 255.

[90] U.S. WAR DEP'T, 1914 RULES OF LAND WARFARE ¶ 214. The United States' law-of-war training materials later pointed out that "undefended" was not synonymous with "unfortified." U.S. ARMY JUDGE ADVOCATE GENERAL SCHOOL TEXT NO. 7, LAW OF LAND WARFARE 40 (1943, reissued 1945). The materials also explained that undefended areas could be bombarded when they contained military objectives unreachable by other means or if a defender could fall back on the location. *Id*. at 41.

practice, the idea of "open towns" seemed to have little or no bearing on the actual conduct of the belligerents.

D. Legal Developments Between the World Wars

Air war doctrine, concepts, and its relation to international law matured between the World Wars. The concepts and discussions remain relevant to the strategic bombing campaigns that followed and remain relevant to modern nuclear war targeting theories.

In 1921, the veteran Italian Airman Giulio Douhet published *The Command of the Air*. Douhet prophesized that the future aim of air power would be to "inflict the most possible material and moral[e] damage on the enemy in the least possible time" by directly attacking "the defenseless population of his cities and great industrial centers."[91] Douhet's concept was free from legal constraints, as he recommended using poison gas in these strikes to prevent fire fighters from containing fires produced by incendiaries.[92] Douhet saw this unrestrained warfare as an eventuality—one where rules would never stop an enemy from destroying cities at home.[93] Despite Douhet's influence, or perhaps because of it, legal concerns over bombing were frequently discussed during the interwar period. Yet in the years leading to the Second World War, the precise legal protections covering civilian populations remained undetermined.[94]

American air war doctrine was influenced by Douhet. Brigadier General William "Billy" Mitchell publically advocated for bombing "centers of production of all kinds, means of transportation, agricultural areas, ports and shipping" to make warfare shorter and more humane through quick and lasting results.[95] The Air Corps Tactical School (ACTS) further developed concepts for effective use of air power. The 1926 text for a "Bombardment" course pointed out that attacks on an enemy's political centers may be prohibited by the law of war generally,

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[91] GIULIO DOUHET, THE COMMAND OF THE AIR 282 (Dino Ferrari, trans., 1998).
[92] *Id.* at 20.
[93] *Id.* at 283.
[94] Parks, *Air War and the Law of War*, *supra* note 56, at 38, 41.
[95] William Mitchell, Winged Defense: The Development and Possibilities of Modern Air Power—Economic and Military (1925), *as reprinted in* THE ART OF WAR IN WORLD HISTORY 903 (Gérard Chaliand, ed., 1994).

but would be "important targets for bombardment in reprisal for attaches made by the enemy on such centers in our own country."[96]

Major William Sherman wrote a detailed book which may generally be reflective of U.S. air war concepts, since he based the book on his notes as an instructor at Air Service Field Officer's School (which was later renamed ACTS) and Army Command and General Staff School.[97] Sherman advocated the use of strategic bombardment to cripple an enemy's military supply system through systematic attacks on key industrial plants, transportation hubs, bridges or tunnels, rather than through inefficient attacks on the entire industry of the state.[98] Moreover, Sherman wrote that "the status of air bombardment in international law is a matter of profound concern[.]"[99] After discussing Allied and German practices in the Great War, he concluded that the "present trend of international law . . . definitely forbids the bombardment of civilians for the purpose of intimidation, and restricts legitimate attacks solely to military objectives."[100] Sherman specifically resisted the idea of attacks on civilians under the logic of a "war worker" theory based more on an appeal to humanitarian principles rather than legal ones, since he viewed international law as a political matter.[101] Even without binding law, Sherman viewed the fear of reprisals as providing restraints against population attacks.[102]

J. M. Spaight, an employee in the British Air Ministry trained in law, was a prolific and influential writer on legal aspects of air warfare.[103] Spaight presented several theories of airpower. British Air Ministers predicted that air power would be used to attack civilian governmental,

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[96] TAMI DAVIS BIDDLE, RHETORIC AND REALITY IN AIR WARFARE 139 (2002) (quoting AIR CORPS TACTICAL SCHOOL (ACTS), BOMBARDMENT (1926), 63-64).

[97] Wray Johnson, *Introduction to* WILLIAM SHERMAN, AIR WARFARE xvi (Air University Press 2002) (1926).

[98] SHERMAN, supra note 97, at 197-99.

[99] *Id.* at 190. Sherman served as a military advisor on aviation to the Rules of War Commission of Jurists at The Hague from November 1922 to February 1923. Johnson, *supra* note 97, at xiii.

[100] SHERMAN, *supra* note 97, at 193.

[101] *Id*. at 190–93.

[102] *Id.* at 194.

[103] Spaight's work was regularly cited in U.S. Army Judge Advocate General supplement to the law of land warfare, JUDGE ADVOCATE GENERAL'S SCHOOL, *J.A.G.S. Text No. 7, The Law of Land Warfare*, (Sept. 1, 1943, reissued July 1, 1945), http://www.loc.gov/rr/frd/Military_Law/pdf/law-of-land-warfare_7.pdf.

industrial, and population centers.[104] One characterized modern war as being directed against the economic life of the adversary. Spaight also quoted the French expert, Commandant Marcel Jauneaud, who believed that air campaigns would be waged against "the large cities and industrial centres of the enemy as well as his aerodromes and lines of communication."[105] Spaight concluded, "There is ample evidence that purely military objectives are by no means solely contemplated as the legitimate targets of air attack."[106] Modern war, unless regulated, would represent a return to barbarism.

Spaight recognized what would later become the principle of distinction: "The distinction between the combatant and the non-combatant elements of a community is the essential condition precedent of the humanizing of warfare."[107] Yet Spaight was realistic enough to foresee that belligerents would attack each other's cities in future wars to break the will of the opponent.[108] Spaight, recognizing that purely military objectives would no longer be the sole objects of attack, advocated for regulation to prevent unmitigated destruction of civilizations.[109] He opposed direct attacks on civilians to reduce their morale.[110]

He also emphasized an early version of the principle of proportionality, explaining that lawful military objects in urban areas could not be bombed if the result would be "widespread and wholly disproportionate loss of life throughout the district."[111] Importantly, Spaight classified people as quasi-combatants when they worked in war supporting industries like armament factories, mobilization stores, depots,

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[104] SPAIGHT, AIR POWER AND WAR RIGHTS 3D, *supra* note 77, at 14-16.
[105] *Id*. at 17.
[106] *Id*. at 16.
[107] JAMES SPAIGHT, AIR POWER AND WAR RIGHTS 59 (2d ed. 1933) [hereinafter AIR POWER AND WAR RIGHTS 2D]. To Spaight, military objectives included supply sources of armies and navies. *Id*. at 5.
[108] JAMES SPAIGHT, AIR POWER AND THE CITIES 6–7 (1930).
[109] SPAIGHT, AIR POWER AND WAR RIGHTS 2D, *supra* note 107, at 16–18.
[110] *Id*. at 17, 30. In 1928, Spaight articulated an expanded vision of lawful objects of attack. He considered military objectives to be barracks, military storehouses and depots, and munitions factories. *Id.* at 244. He considered attacks on private dwellings and food crops to be "repugnant to humanitarian sentiment" and a waste of resources. *Id.* at 245. Finally, Spaight acknowledged that reprisals were lawful, but wrote that they should either be prohibited or limited. *Id*. at 40–46.
[111] SPAIGHT, AIR POWER AND THE CITIES *supra* note 108, at 201.

metal works, aircraft and engine factories, and petrol refineries.[112] These quasi-combatants, according to Spaight, would not enjoy immunity from attack when at work.[113] Spaight did not believe that all citizens of an enemy state should be classified as war-workers. He rejected the legality of attacking civilians on the fringes of the war effort like clothing makers.[114] He similarly rejected the legality of attacking civilians providing material support for a war effort if the nature of their work was not warlike. The quasi-combatants would be limited to "armourors" during periods of work in specific war supporting industries. "What justifies the deliberate attack on the people concerned is that they are engaged on work which is akin to that done by the uniformed men in the field. They are helping to pass the ammunition."[115] Spaight, however, went further and asserted that uninhabited, non-military industry and commercial buildings would also be eligible for bombardment, but not if the attack was also likely to result in civilian casualties.[116] Thus Spaight found a legal difference between killing civilians and destroying civilian property.

Efforts to establish legal parameters for air war extended beyond individual authors. Nations unsuccessfully tried to form international law for aerial bombardment.[117] Rules drafted in 1923 by delegates from several nations were never adopted because of the limited definition of valid military objectives and protection to be afforded civilians living near them.[118]

Despite the lack of consensus, concerns over civilian casualties became paramount in the late 1930s when U.S. officials condemned Japanese aerial bombardment of Chinese cities and similar bombing practices during the Spanish Civil War. The U.S. State Department took

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[112] *Id.* at 150.

[113] *Id*. at 151. Spaight thought that the homes of these workers should not be regarded as a legitimate objective for attack so as to encourage absenteeism. *Id*. at 152-53.

[114] SPAIGHT, AIR POWER AND WAR RIGHTS 3D, *supra* note 77, at 46.

[115] *Id*. at 47.

[116] SPAIGHT, AIR POWER AND WAR RIGHTS 2D *supra* note 107, at 246. Examples included factories (regardless of goods produced), large financial and commercial corporations, waterworks, electric generating stations, and "possibly" *empty* recreation facilities like theaters, sports stadiums, and casinos. *Id*. at 246–47.

[117] Commission of Jurists at The Hague, *Hague Rules of Air Warfare* art. 24(1) (Dec. 1922–Feb. 1923) *reprinted in* SCHINDLER & TOMAN, *supra* note 53, at 315 [hereinafter *Draft 1923 Hague Air Rules*].

[118] Williams, *supra* note 85, at 577.

the position that "any general bombing of an extensive area wherein there resides a large population engaged in peaceful pursuits is unwarranted and contrary to the principles of law and of humanity."[119] President Franklin D. Roosevelt decried the "reign of terror and international lawlessness" where "[w]ithout a declaration of war and without warning or justification of any kind, civilians, including vast numbers of women and children, are being ruthlessly murdered with bombs from the air."[120] The U.S. Senate likewise passed a resolution condemning the "inhuman bombing of civilian populations."[121]

E. World War II Conventional Strategic Bombing

Over the course of the Second World War hundreds of European cities, towns and villages were bombed from the air, directly resulting in estimated 600,000 civilians killed.[122] At the outset of the war, leaders of the waring nations hoped to avoid these results. In 1939, Germany, England and France agreed to limit targets to military objectives, but this proved short-lived as inaccurate strikes created perceptions, real or imagined, of indiscriminate attacks.[123] When Germany bombed Warsaw in 1939 and Rotterdam in 1940, it received harsh criticism for its lack of discrimination.[124]

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[119] The American Ambassador in Japan (Grew) to the Japanese Minister for Foreign Affairs (Hirota), Tokyo, September 22, 1937 *reprinted in* U.S. Dep't of State, I PAPERS RELATING TO THE FOREIGN RELATIONS OF THE UNITED STATES JAPAN: 1931-1941, 504 (1943) [hereinafter JAPAN PAPERS] *See also* Press Release by the Department of State on September 28, 1937, *reprinted in* JAPAN PAPERS, at 506; Statement by the Secretary of State, "Revolution in Spain; Bombing of Civilian Populations," March 21, 1938 *reprinted in* Department of State, XVIII:443 PRESS RELEASES 396 (March 26, 1938); Statement by the Acting Secretary of State, June 3, 1938 *reprinted in* JAPAN PAPERS, at 595.

[120] President Franklin D. Roosevelt, Address at Chicago, October 5, 1937, *reprinted in* PUBLIC PAPERS & ADDRESSES OF FRANKLIN D. ROOSEVELT, http://www.presidency.ucsb.edu/ws/index.php?pid=15476&st=&st1=.

[121] S. Res. 298, 75th Cong. (1938) (enacted).

[122] RICHARD OVERY, THE BOMBING WAR xxiii (2013).

[123] Biddle, *supra* note 56, at 151.

[124] *Id*.; James Spaight, *The War in the Air*, 18 FOREIGN AFFAIRS 359–36 (Jan. 1, 1940). After the war, Kesselring explained, "In the German view, Warsaw was a fortress, and, moreover, it had strong air defenses. Thus the stipulations of the Hague Convention for land warfare, which can analogously be applied to air warfare, were fulfilled." TRIALS OF THE MAJOR WAR CRIMINALS, *supra* note 77, vol. 9, 175. Kesselring also insisted that only military objectives were targeted. *Id.* Historian Richard Overy analyzed the aerial bombardments of Warsaw and Rotterdam and found that they were, in fact, directed at

Winston Churchill was not troubled by the developments in aerial warfare. As Minister of Munitions in the First World War, he advocated long range bombing of German industrial targets.[125] In May 1940, Churchill's new War Cabinet agreed that bombing Germany should not be bound by moral or legal concerns because Germany had already provided the Allies with ample justification for reprisals.[126] On May 15, the Cabinet gave formal approval to bomb German industrial targets which could result in civilian casualties, as long as they were "suitable military objectives."[127] The first major bombing raid on German industrial targets was launched that night.[128] By June 1940, the Cabinet rescinded Chamberlain-era rules which made it illegal to negligently kill civilians.[129] Intentionally killing civilians remained illegal and causing undue loss of life was to be avoided.[130] By July, British pilots were given discretion to choose targets if they could not strike their primary objective.[131] In August 1940, the day after German bombs fell in central London, Churchill raised the stakes and ordered bombers to attack Berlin in retaliation.[132] Starting in September, the Luftwaffe responded with the devastating Blitz on London and other British cities.[133] Hitler was so incensed at British air raids, he promised to drop one million kilograms of explosives on them in one night, declaring, "[If] they will greatly increase their attacks on our cities, then we will erase their cities!"[134]

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military objectives. OVERY, *supra* note 122, at 62–65. Perceptions of indiscriminate attacks probably arose due to the inaccuracy of the bombardment and proximity of military objects to civilian ones. *Id.* at 63.

125 OVERY, *supra* note 122, at 243.

126 *Id*. at 244.

127 *Id*. (quoting War Cabinet minutes: Confidential Annex, May 15, 1940).

128 OVERY, *supra* note 122, at 244.

129 *Id*. at 245.

130 *Id*.

131 *Id*.

132 *Id*.; WINSTON CHURCHILL, THEIR FINEST HOUR 342 (1949); MAX HASTINGS, BOMBER COMMAND 108 (2010). The Commander-in-chief of RAF Bomber Command sought to drop bombs in the "middle of Berlin" while aiming at the German War Office and Air Ministry, but the Chief of Air Staff substituted "Railway Communications" as the target. Peter Gray, *The Gloves Will Have to Come Off: A Reappraisal of the Legitimacy of the RAF Bomber Offensive Against Germany*, 13 ROYAL AIR FORCE AIR POWER REV. 3, 9, 25 (2010).

133 OVERY, *supra* note 122, at 83. The German attacks were planned well in advance, but the British raids allowed Hitler to characterize the German offensive as a reprisal; the plan for the first raid was titled "revenge attack." *Id*.

134 Adolf Hitler, Speech at the Berlin Sportpalast, Sept. 4, 1940 translated transcript located at http://der-fuehrer.org/reden/english/40-09-04.htm *quoted in* Peter Lee, *Return from the Wilderness: An Assessment of Arthur Harris' Moral Responsibility for the German City*

The British Air Ministry never seemed to believe that their forces were indiscriminately attacking civilian populations *per se*, but the Air Ministry did not restrain Bomber Command from attacking urban objectives. In October 1940, Bomber Command was directed to focus on causing heavy material destruction in large towns and thereby degrade enemy morale.[135] Official British policy still prohibited direct attacks on civilians and required attacks to be directed against military objectives using reasonable care to "avoid undue loss of civil life in the vicinity of the target."[136] This policy, however, seemed contrary to the strategy and tactics that employed the limited technology available. It also evolved into wide-spread and devastating city bombing by the end of the war.[137]

Once the United States joined the war, American leadership agreed with British counterparts on the ultimate goal of the bombing campaign against Germany: "the progressive destruction and dislocation of the German military, industrial and economic system, and the undermining of the morale of the German people to a point where their capacity for armed

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Bombings, 16 THE ROYAL AIR FORCE AIR POWER REVIEW 70, 76 (2013). Despite the rhetoric, Hitler disapproved requests to deliberately bomb residential areas in September 1940. OVERY, *supra* note 122, at 86. Germany targeted Britain's military, industry (iron ore fields, steel works, aluminum plants and armaments industry, with a special emphasis on aircraft engine plants) and economic facilities (such as ports, docks, warehouses, silos, oil storage, and shipping). *Id*. at 70, 90–93. Morale was an indirect target in 1940–41. *Id*. at 85. Hitler expressly authorized terror attacks on British residential areas after destruction of historical German ports in March 1942, but Göring failed to see a benefit in doing so and ordered air crews to attack useful military or economic objectives instead. *Id*. at 118. Later in the war Germany resorted to *Vergeltungswaffe* (the revenge weapon), the V-1 flying bomb and subsequent V-2 rockets to retaliate against Britain and break the morale of its people. LAWRENCE FREEDMAN, THE EVOLUTION OF NUCLEAR STRATEGY 13 (3d ed., 2003). These weapons were only capable of being aimed at general areas, like cities. Roberts, *supra* note 86, at 131. Hitler also tried to starve Britain through a combined air and naval blockade, which included aerial attacks on food storage and transport systems. OVERY, *supra* note 122, at 161.

[135] OVERY, *supra* note 122, at 245.

[136] Parks, *Air War and the Law of War*, *supra* note 56, at 46; Richard Davis, *American Bombardment Policy Against Germany: 1942-1945*, 6 ROYAL AIR FORCE AIR POWER REV. 3, 49, 50 (2003). Historian Richard Overy observed, "When attacks against 'industrial populations' was included in a draft directive in August 1942, the Air Ministry insisted that the term be altered to 'industrial centres' to avoid the impression that civilians were deliberate targets, 'which is contrary to the principles of international law–such as they are.'" OVERY, *supra*, at 122 (quoting The National Archives, Kew, London, AIR 9/424, Slessor (Deputy Chief of the Air Staff) to Director of Plans, Aug. 17 and 24, 1942). Overy ultimately rejected the British claim that civilians were not deliberately targeted and characterized such claims as subterfuge. OVERY, *supra* note 123, at 629.

[137] OVERY, *supra* note 122, at 245.

resistance is fatally weakened."[138] The attack priorities were to destroy invasion barges, aircraft industry, submarine works, as well as communications and oil resources.[139] The British and Americans, however, pursued these goals with different tactics.

Early in the war, experience taught the British that enemy fighters were relatively absent at night and anti-aircraft fire was less effective.[140] They also believed night attacks would have the advantage of keeping enemy citizens awake due to air raid warnings, thereby affecting their morale and productivity.[141] As night raids started, the British realized that bombers were not accurately striking industrial targets due to difficulties in target identification. RAF Bomber Command therefore adopted an area-bombing tactic, also known as mass night bombing:

> [A] district would be chosen for bombardment in which was concentrated the highest possible proportion of vital industrial installations. Every hit would be of value, to be sure, but the attack could be launched with the prospect that many bombs which missed industrial targets–the overwhelming majority of those dropped–would hit the homes and shops and cinemas and cafés of the industrial workers and their families upon whom the German war effort must depend.[142]

Urban area bombing, with its anticipated collateral damage, could not have accounted for law-of -war concepts of proportionality or distinction which so concerned Spaight in the inter-war years.[143] Indeed, historian Richard Overy characterized the British approach as inverting the view of

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[138] MAURICE MATLOFF, STRATEGIC PLANNING FOR COALITION WARFARE: 1943–1944 28 (1959) (quoting *The Bomber Offensive from the United Kingdom*, Combined Chiefs of Staff (CCS) 166/1/D, January 21, 1943).

[139] MATLOFF, *supra* note 138, at 28.

[140] BIDDLE, *supra* note 96, 184–85.

[141] *Id*. at 185.

[142] HASTINGS, *supra* note 132, at 110.

[143] Spaight later defended the practice of area bombing as necessary for the "effective destruction of the enemy's sources of munitionment"; civilian casualties were caused by the proximity of workers to the targets and German defenses. SPAIGHT, AIR POWER AND WAR RIGHTS 3D , *supra* note 77, at 271–73. Spaight also explained the area to be bombed must be proportional to that which the actual objectives occupy. *Id*. at 274. To Spaight, this was one factor distinguishing area bombing from the use of atomic bombs. *Id*.

collateral damage by focusing on killing and displacing the German industrial workforce to achieve a collateral effect of the factory damage.[144]

British bombing departed further from concepts of proportionality or distinction once Sir Arthur Harris became the chief of Bomber Command in February 1942. He said that bombers would aim for the center of cities because of the direct correlation between concentrated urban devastation and lost industrial man-hours.[145] To Harris, city attacks were the most efficient use of bombers against an industrialized enemy.[146] The Americans appear to have developed a similar view, characterizing valid targets as "industrial" cities using criteria fitting virtually every city with over 50,000 people.[147]

The logical flaw in this approach was that population centers were not necessarily industrial centers. Moreover, not all industrial centers were in direct support of the German war machine. According to historian Max Hastings, "The Allies' major misunderstanding from start to finish was that they saw Hitler's Germany as an armed camp, solely dedicated since at least 1939 to the business of making war. They thus assumed that any damage done by bombing represented a net loss to the German war effort."[148] This is not to say that strategic bombing was a wasted effort. Germany was also forced to allocate massive amounts of manpower and resources away from its front lines to defend against Allied air attacks.[149] Furthermore, economist Adam Tooze demonstrated that starting in 1943, sustained bomber attacks on German war industry, notably the steel, coal

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144 OVERY, *supra* note 122, at 259.

145 HASTINGS, *supra* note 132, at 160. Targeting industry in Germany was problematic for many reasons. One was due to the strategy of aiming at city centers when the industrial areas of the cities were in the suburbs. *Id.* at 421. An attack on the city of Darmstadt destroyed 49% of the city's civilian housing, but caused relatively small losses in industrial production. *Id.*

146 BIDDLE, *supra* note 96, at 199.

147 *Id.* at 55. The American and British militaries tried to develop criteria for an open city to be spared from bombing when deliberating the aerial bombardment of Rome. OVERY, *supra* note 123, at 528. The American criteria was the removal of all enemy forces, evacuation of all government agencies, cessation of all war production, and cessation of using roads and rails for military purposes. *Id.* The British rejected the American proposal. *Id.* According to Overy, "Churchill worried that if Rome were made an open city, it would hamper Allied military efforts to pursue Germans up the west side of the peninsula." *Id.* at 533.

148 HASTINGS, *supra* note 132, at 283-84.

149 OVERY, *supra* note 122, at 627.

and component manufacturing plants in the Ruhr, and caused critical problems in the Nazi armament program.[150]

Area bombing was a ruthlessly effective way to destroy industrial facilities and their workforce. The devastation of area bombing is perhaps best illustrated by the 1943 aerial attack on Hamburg, a bustling port city.[151] The Hamburg assault, which saw the first use of incendiaries, also illustrates the lack of distinction between military and civilian entities:

> 42,000 Germans were estimated to have died. A million refugees fled the city. In one week, Bomber Command had killed more people than the Luftwaffe had achieved in the eight months of the blitz in England in 1940-41. In Hamburg, 40,385 houses, 275,000 flats, 580 factories, 2,632 shops, 277 schools, 24 hospitals, 58 churches, 83 banks, 12 bridges, 76 public buildings and a zoo had been obliterated.[152]

Rather than viewing area bombing as a means to destroy specific industries, Sir Arthur Harris saw it as the mechanism to wipe out the German economic system by destroying homes, public utilities, transportation systems and people, as well as creating massive refugee problems and attacking enemy morale.[153] The British Air Ministry refused to concur, explaining "that the widespread devastation is not an end in itself but the inevitable accompaniment of an all-out attack on the enemy's means and capacity to wage war."[154]

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[150] ADAM TOOZE, THE WAGES OF DESTRUCTION 597–98 (2006). The Allied bombing campaign against Germany ultimately contributed to Germany's defeat, but could have been more effective with better target selection and more systematic attacks on key war supporting industries *See, e.g.*, Robert Ehlers, *Bombers, 'Butchers', and Britain's Bête Noire: Reappraising RAF Bomber Command's Role in World War II*, 14 THE ROYAL AIR FORCE AIR POWER REVIEW 5 (2011); Richard J. Overy, *The Bombing of Germany*, *in* THE WAR IN THE AIR: 1914–1994, 107, 111 (Alan Stephens, ed., 2001).

[151] HASTINGS, *supra* note 132, at 259.

[152] *Id*. at 261. Historian Richard Overy reports the same number of homes and apartments destroyed, but says German casualties were between 34,000 and 40,000. OVERY, *supra* note 122, at 436.

[153] BIDDLE, *supra* note 96, at 220.

[154] *Id*. (quoting correspondence from Sir Arthur Street, Under Secretary of State, Air Ministry, to Sir Arthur Harris, December 15, 1943).

Destroying the morale of the German people was a subordinate objective of the British bombing campaign.[155] This was considered lawful, but not through direct attacks on civilians; it was only to be obtained as a secondary effect of an attack directed at an otherwise legitimate military objective.[156] In February 1942, Bomber Command's strategic priority was to focus on "the morale of the enemy civilian population and in particular, of the industrial workers."[157] Reprisal doctrine occasionally authorized direct attacks on the enemy's population. After a German attack on Coventry in 1940, the U.K. authorized an indiscriminate bombing raid on Mannheim.[158] In October 1942, the Air Staff circulated another memorandum invoking reprisal: "Consequent upon the enemy's adoption of a campaign of unrestricted air warfare, the Cabinet have authorized a bombing policy which includes attack on enemy morale."[159] The British military historian and retired Air Commodore, Dr. Peter Gray, points out that morale bombing echoed "the place of retaliatory action in the culture of the times . . . ."[160] While morale was a subordinate objective, it was not frequently emphasized by the military. Furthermore, British civilian political leadership was often deceitful about whether attacks on morale were even occurring.[161] Politicians may have been concerned with how they might justify attacks on civilian morale without admitting to

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155 HASTINGS, *supra* note 132, at 160.

156 J.M. Spaight, *Morale as Objective*, 3 THE ROYAL AIR FORCE QUARTERLY, 287, 290 (1951). Max Hastings implies that the Air Staff authorized terror bombing on Berlin by authorizing occasional attacks while admitting "there are no objectives in the Berlin area of importance to our major plans . . . ." HASTINGS, *supra* note 132, at 111. The Air Staff quote was taken from a 1940 directive outlining major plans for strikes on German U-boat facilities and oil industry. Ken Delve, BOMBER COMMAND: 1936-1968: AN OPERATIONAL & HISTORICAL RECORD 11–12 (2005). Not only was Berlin the administrative center of Germany, it was a major arsenal, a major communications and transportation hub, and contained several major war-related industries. MARTIN MIDDLEBROOK, THE BERLIN RAIDS: RAF BOMBER COMMAND WINTER 1943–44, 21–22 (1988). A RAF pilot from one of the 1940 air raids on Berlin confirmed that aircrews had clear instructions "to bomb the target and the target only." SPAIGHT, AIR POWER AND WAR RIGHTS 3D, *supra* note 77, at 268 (quoting G. GIBSON, ENEMY COAST AHEAD 75 (1946)). Confusion over the policy remains, however, because bombs regularly fell far from the target areas due to weather, technology and navigation problems. MIDDLEBROOK, at 22–23.

157 Lee, *supra* note 134, at 75.

158 OVERY, *supra* note 122, at 262.

159 HASTINGS, *supra* note 132, at 211.

160 Gray, *supra* note 132, at 26.

161 HASTINGS, *supra* note 132, at 44–46, 212–13.

potentially inflammatory direct attacks on enemy civilians. They simply wanted to avoid provoking public controversy.[162]

United States military leaders elected not to copy the British.[163] The enemy's morale was not a targeting priority, but its war industry was.[164] The American approach embraced daylight precision bombing, relying on the Norden bomb-sight.[165] Of course, the "precision" of bombing in the 1940s was imprecise by modern standards, especially when factoring crew training, enemy defenses, nature of the targets, smoke and dust from earlier bombing, and weather effects.[166] In 1943, the U.S. Army Air Forces (AAF) also made use of a type of area bombing–that of radar guided area raids–when weather prevented precision attacks.[167] Furthermore, AAF still bombed the same sets of target categories as British allies. Ultimately, the British and the Americans agreed to disagree about tactics while publically emphasizing their combined "round the clock" bomber offensive.[168]

Perhaps the most controversial allied bombing in the European theater was directed against the German city of Dresden in February, 1945. The destruction of Dresden, a cultural center, caused 25,000 to 135,000 deaths and resulted in widespread condemnation that continues to this day.[169] Churchill was briefed that the city, among others, would be targeted to impair German communications and troop movements supporting the

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[162] Gray, *supra* note 132, at 28.

[163] MATLOFF, *supra* note 138, at 29.

[164] The American air war plan was developed by the Air War Plans Division (AWPD). The plan, AWPD-1, was updated to AWPD-42 in September 1942. "According to AWPD-I, the priority assigned targets in Europe was the [German Air Force], the electric power system, transportation systems (rail, road, water), refineries and synthetic oil plants, and, more generally, the morale of the German people." As the RAF concentrated on German morale, "that target priority disappeared from AWPD-42." PIERCING THE FOG: INTELLIGENCE AND ARMY AIR FORCES OPERATIONS IN WORLD WAR II, 151–52 (John F. Kreis, ed., 1996).

[165] HASTINGS, *supra* note 132, at 226.

[166] Davis, *supra* note 136, at 52.

[167] HASTINGS, *supra* note 132, at 346; Davis, *supra* note 136, at 54.

[168] BIDDLE, *supra* note 96, at 215.

[169] HASTINGS, *supra* note 132, at 443–48; OVERY, *supra* note 122, at 395. The estimate of 25,000 deaths—confirmed by a Dresden historical commission—is probably the most accurate. OVERY, *supra*, at 395; BIDDLE, *supra* note 96, at 255–56. Shortly after the attack, Nazi propaganda minister Goebbels told the media that ten times that number were killed. OVERY, *supra*, at 395.

Eastern front.[170] Aircrews were told Dresden had "developed into an industrial city of first-class importance, and like any other large city with its multiplicity of telephone and rail facilities, is of major value for controlling the defense of that part of the front now threatened . . . ."[171] While Dresden was an important rail hub, it was not a major industrial center; the educated British public was also familiar with the city for its culture and architecture.[172] Public outrage was fueled by a press report of an interview given by Air Commodore C. M. Grierson. Even though Grierson denied the attack was terror bombing, his indication that refugees and relief efforts would block movement of military supplies implied reduction of enemy morale by increasing suffering.[173] The Associated Press correspondent reported the Allies had made the "long awaited decision to adopt deliberate terror bombing of German population centres as a ruthless expedient to hastening Hitler's doom."[174] Churchill responded by writing to Air Chief Marshall Charles Portal, chief of the air staff, explaining that bombing "for the sake of increasing the terror, though under other pretexts, should be reviewed."[175] After objections from Portal and Harris, Churchill moderated his position.[176] Harris definitively rejected the terror characterization and defended the attack: "Dresden was a mass of munition works, an intact government centre and a key transportation point to the East. It is now none of those things."[177]

While American military leaders always insisted their bombing policies of attacking industrial targets with precision bombing remained in effect, Harris struck a far more callous and politically insensitive tone. In 1943, he wrote "The German economic system, which I am instructed by my directive to destroy, includes workers, houses, and public utilities, and it is therefore meaningless to claim that the wiping out of German cities is 'not an end in itself . . . .'"[178] He added that the devastation cause by night bombing was deliberate, not incidental.[179] While the United States never endorsed Harris' characterization of strategic bombing in Europe,

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170 Gray, *supra* note 132, at 30.
171 HASTINGS, *supra* note 132, at 446.
172 BIDDLE, *supra* note 96, at 256.
173 RICHARD DAVIS, CARL A. SPAATZ AND THE AIR WAR IN EUROPE 558–59 (1993)
174 *Id*. at 559.
175 OVERY, *supra* note 122, at 396.
176 *Id*.
177 Gray, *supra* note 132, at 30.
178 *Id*. at 28.
179 *Id*. at 28–29.

American leaders certainly learned to embrace similar techniques in the campaign against Japan.

The U.S. Pacific air campaign developed differently than the allied efforts in Europe. The air campaign supplemented an unrestricted submarine warfare campaign against Japanese shipping ordered within hours of the attack on Pearl Harbor.[180] Another difference from the European bombing campaign was the distance between the Japanese mainland and allied airfields. Japanese mainland targets, including its industry, could not be effectively struck until June 1944.[181] The regular strategic bombing of Japan did not get underway until the arrival of the long-range B-29 in August 1944. By then, the submarine blockade against Japan was slowly choking industry and starving the population.[182] Strategic bombing was to transform this slow strangulation to a relatively quick death.[183]

The objective of the AAF bombing plan against Japan was to reduce the Japanese war effort to impotency, neutralize its air force, and reduce its navy and merchant shipping to a level allowing occupation of Japan.[184] The AAF systematically selected Japanese industrial targets.[185] As in Germany, the objectives were not limited to destroying war-supporting infrastructure, but also included the destruction of the economic

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[180] JOEL HOLWITT, EXECUTE AGAINST JAPAN 141 (2009). The U.S. submarine strategy was to cut off military supplies from Japanese occupied islands, to deprive the mainland of food and other raw materials, and to sever transportation lines necessary for Japanese foreign commerce. THEODORE ROSCOE, UNITED STATES SUBMARINE OPERATIONS IN WORLD WAR II 304 (1949).

[181] U.S. STRATEGIC BOMBING SURV., OVER-ALL ECONOMIC EFFECTS DIV., THE EFFECTS OF STRATEGIC BOMBING ON JAPAN'S WAR ECONOMY (Dec. 1946) at 36, http://babel.hathitrust.org/cgi/pt?id=mdp.39015019347510;view=1up;seq=1..

[182] HOLWITT, *supra* note 180, at 166–68. Historian and U.S. Navy Submarine officer Joel Holwitt explained, "The exact toll on the Japanese military population due to starvation and privation during and immediately after the war may never be known, but the number is probably staggering." *Id.* at 167. Following the surrender, the Japanese finance minister told U.S. authorities that 10 million people would starve without immediate food assistance. *Id.* While this estimate may be exaggerated, it gives a rough idea of the magnitude of the starvation problem facing Japan.

[183] U.S. STRATEGIC BOMBING SURV., URBAN AREAS DIV., THE EFFECTS OF AIR ATTACK ON JAPANESE URBAN ECONOMY 45 (Mar. 1947), https://babel.hathitrust.org/cgi/pt?id=mdp.39015022928447;view=1up;seq=3 [hereinafter U.S. STRATEGIC BOMBING SURV. (URBAN)].

[184] MATLOFF, *supra* note 139, at 329.

[185] PIERCING THE FOG, *supra* note 164, at 330–31.

framework on which the enemy state depended.[186] The overall objective was to bring about surrender by forcing the adversary to realize that it "could no longer supply the basic needs upon which the population relied for its life and social survival."[187]

In January, 1945, General Arnold was frustrated by the limited results from the strategic bombing campaign and placed Major General Curtis LeMay in command. LeMay shifted tactics away from high-altitude precision bombing to massive, night low-level attacks using incendiaries, in keeping with intelligence recommendations endorsing Japanese urban-area fire bombing.[188]

The first major fire-bombing attack on Tokyo occurred on the night of March 9, 1945, killing 90,000 to 100,000 people and leaving one million homeless while destroying one-quarter of the city's buildings, 63% of its commercial district, as well as 18% of its industrial capacity.[189] After the attack, the spokesperson for the AAF emphasized the industrial nature of the targets and that industrial workers had been rendered homeless.[190]

In Japan, the results of the strategic air campaign were catastrophic. Bombs directly caused damage, but also had the indirect effect of dispersing industry. Raw materials were cut off due, in part, to air-dropped mines in harbors. Workers were left homeless and needed to forage for food and essentials for themselves and their families.[191] LeMay later explained his perspective in terms of retaliation:

> I was not happy, but neither was I particularly concerned, about civilian casualties on incendiary raids. I didn't let it influence any of my decisions because we knew how the Japanese had treated the Americans—both civilian

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[186] HAYWOOD HANSELL, JR., THE STRATEGIC AIR WAR AGAINST GERMANY AND JAPAN: A MEMOIR 248 (1986).
[187] *Id*. at 248.
[188] PIERCING THE FOG, *supra* note 164, at 340; 388–39. LeMay did not completely abandon selective targeting of specific industries, and hit those targets when weather permitted. HANSELL, *supra* note 186, at 232 and 238. U.S. STRATEGIC BOMBING SURV. (URBAN), *supra* note 182, at 45.
[189] JAMES BRADLEY, FLYBOYS 276–77 (2003).
[190] *Id*. at 279.
[191] HANSELL, *supra* note 186, at 246.

> and military—that they'd captured in places like the Philippines.
>
> We had dropped some warning leaflets over Japan, which essentially told the civilian population that we weren't trying to kill them, but rather that we were trying to destroy their capability to make war.[192]

By July 1945, Japan's economic system was shattered.[193] By the end of the war, attacks on industrial areas resulted in more than sixty-five cities being completely burnt down.[194]

The law of war applicable to targeting, notably the concepts of distinction and proportionality, appeared to be marginalized by practice towards the end of the Second World War. Rhetorical justification for strategic bombing (as well as unrestricted submarine warfare) may have used terms such as reprisal and retaliation during the war, but it was less the traditional doctrine of belligerent reprisal then the escalation of warfare by all parties.[195] Not only did belligerents invoke retaliation to justify attacks on otherwise questionable targets, the British and Americans leveraged the law of war to stress that their attacks were justified as strikes on military objectives. Thus, attacks on civilian morale usually required

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[192] CURTIS LEMAY & BILL YENNE, SUPERFORTRESS: THE B-29 AND AMERICAN AIRPOWER 125 (1988).

[193] HANSELL, *supra* note 186, at 248.

[194] LEMAY & YENNE, *supra* note 192, at 132

[195] The explanation for not prosecuting Germans for bombardment of cities during the war was based on widespread conduct by all parties:

> If the first badly bombed cities—Warsaw, Rotterdam, Belgrade, and London—suffered at the hands of the Germans and not the Allies, nonetheless the ruins of German and Japanese cities were the results not of reprisal but of deliberate policy, and bore eloquent witness that aerial bombardment of cities and factories has become a recognized part of modern warfare as carried on by all nations from the U.S. Chief of Counsel for War Crimes at Nuremberg, General Telford Taylor, who succeeded Justice Jackson as the Chief of Counsel in October 1946.

TELFORD TAYLOR, FINAL REPORT TO THE SEC'Y OF THE ARMY ON THE NUREMBERG WAR CRIMES TRIALS UNDER CONTROL COUNCIL LAW NO. 10 at 250 (Aug. 15, 1949).

an attack on a lawful military objective as the primary target.[196] Military objectives, however, were defined so broadly that they provided no meaningful restraint.[197] Attacks on industry would result in civilian deaths. Such civilians were seen as supporting the war effort—as quasi combatants, they were not distinguished from lawful combatants. Attacks on the enemy's economy, as Harris admitted, authorized attacks on cities. This is where law, as customary practice, stood at the dawn of the nuclear age.[198]

D. Targeting Hiroshima and Nagasaki

Atomic bomb targets were a matter of considerable deliberation. Early discussions between members of the Manhattan Project and AAF representatives were formally elevated to a targeting committee chaired by Major General Leslie Groves, the commander of the Manhattan Project.[199] The committee first met on April 27, 1945. It was tasked to choose four targets and, based on indications from the Army Chief of Staff, General George Marshall, to consider the major ports on Japan's west coast, which were essential links between Japan and the Asiatic mainland.[200] As the committee met over the next month, it settled on important target selection

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[196] H. Lauterpacht, *The Problem of the Revision of the Law of War*, 29 BRIT. Y.B. INT'L L. 368 (1952) (explaining that it remained "unlawful to resort to bombing of the civilian population for the mere purpose of terrorization. For in this case the civilian population becomes the direct object of attack regardless of any connexion [*sic*] with a military objective.").

[197] *Id.* ("[T]he phenomenon of total war has reduced [the distinction between combatants and civilians], in most respects, to a hollow phrase.").

[198] Lester Nurick, *The Distinction Between Combatant and Noncombatant in the Law of War*, 39 Am. J. Int'l L. 680, 696 (1945); *see also* Harry Almond, Jr., *Deterrence and a Policy-Oriented Perspective, in* NUCLEAR WEAPONS AND LAW 58-59 (Arthur Selwyn Miller & Martin Feinrider eds. 1984) (explaining that the lack of governmental protests following the Second World War conventional and nuclear bombing of cities fully established the legitimacy of cities as "strategic" military targets). On the other hand, Overy characterizes the bombing activities supported by WWII belligerents as violating "every accepted norm in the conduct of modern warfare[.]" OVERY, *supra* note 122, at 630. In support of his finding civilian population bombing as "legally problematic" he points to post war Geneva Conventions and Additional Protocols. As will be discussed later, the Geneva Conventions did nothing to prohibit similar bombing activities. *Infra* section III.A. The Additional Protocols were not universally adopted. *Infra* section IX. Furthermore, subsequent law logically indicates more the absence of law prior to enactment, rather than its existence.

[199] VINCENT JONES, MANHATTAN: THE ARMY AND THE ATOMIC BOMB 528 (2007).

[200] *Id.*

factors. The first issues were practical considerations, such as the range of the bombers, attacking during the day to insure accuracy, anticipated weather conditions, and ability to have alternate targets during a single mission.[201] The committee's initial target selection criteria were also based on more subjective needs such as generating a "morale effect upon the enemy" and "to produce the greatest military effect on the Japanese people and thereby most effectively shorten the war."[202] The emphasis on the morale effect was based on the belief that the physical damage caused by an atomic bomb would be similar to a conventional bombing attack of the same dimensions, with the principle difference being the visual effect of "a brilliant luminescence, which would rise to a height of 10,000 to 20,000 feet."[203] The initial criteria led to more advanced considerations: (1) targets should contain a large percentage of closely-built frame buildings and other construction that would be most susceptible to damage by blast and fire; (2) targets should be a densely built up area of at least one mile in radius, the anticipated blast area of the bomb; (3) targets should be of a high military strategic value; and (4) the first target should be relatively untouched by previous bombings to better determine the effect of the atomic bomb.[204] On May 28 the committee decided on four targets: Kokura Arsenal, an eight million square-foot munitions plant; Hiroshima, a major military embarkation point, military headquarters, and home to railway yards, storage depots and industry; Niigata, an important seaport with an aluminum reduction plant, ironworks, oil refinery and tanker terminal; and Kyoto, with three-square miles of industry.[205]

On May 29, 1945, General Marshall, Secretary of War Henry L. Stimson and Assistant Secretary of War John J. McCloy had a separate discussion on the bomb. Marshall recommended the atomic bomb be dropped on "straight military objectives such as a large naval installation."[206] He went on to recommend that if the bomb were to be used on manufacturing areas, a general warning should first be issued so that people could evacuate the areas.[207]

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[201] Manhattan Eng'r Dist., *supra* note 5, at 16–17.
[202] *Id*. at 17.
[203] U.S. WAR DEP'T, NOTES OF THE INTERIM COMM. MEETING, Thursday May 31, 1945, at 13 [hereinafter WAR DEP'T NOTES].
[204] Manhattan Eng'r Dist., *supra* note 5, at 17.
[205] JONES, *supra* note 199, at 529.
[206] WALKER, *supra* note 4, at 51.
[207] *Id*.

The next day, Stimson had an unrelated meeting with General Groves and asked about the committee's target choices.[208] When Groves told the Secretary that Kyoto was on the list, Stimson expressed strong objections because that city had great religious and cultural significance to the Japanese.[209] Groves would continue to try and change Stimson's mind, but was unsuccessful.

Further discussions on target selection were held on May 31, during a meeting of a special committee formed and chaired by Secretary Stimson with the President's approval. This committee, known as the "Interim Committee," was composed of high-level advisors to discuss atomic energy matters, which included issues relevant to the new weapon.[210] The committee's meeting summary explains their target selection considerations:

> After much discussion concerning various types of targets and the effects to be produced, the Secretary expressed the conclusion, on which there was general agreement, that we could not give the Japanese any warning; that we could not concentrate on a civilian area; but that we should seek to make a profound psychological impression on as many of the inhabitants as possible. At the suggestion of Dr. [Karl] Compton [President of the Massachusetts Institute of Technology] the Secretary agreed that the most desirable target would be a vital war plant employing a large number of workers and closely surrounded by workers' houses.[211]

The Interim Committee discussion is insightful. In keeping with the ongoing conventional industrial and economic attacks during the war, none of these experts considered military-industrial areas to be "civilian" in nature. Therefore, workers at these plants were not considered to be protected from attack in any way. As far as the committee members were concerned, these targets were purely military.

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[208] JONES, *supra* at note 199, at 529.
[209] *Id.*
[210] *Id*. at 530; WALKER, *supra* note 4, at 14.
[211] WAR DEP'T NOTES, *supra* note 204, at 13–14.

On July 21, Stimson was at the Potsdam Conference with the President when he received a request to reconsider his rejection of Kyoto as a target.[212] Stimson replied two days later, explaining that the President confirmed that Kyoto was off-limits for the atomic bomb.[213] On July 25, Stimson approved a directive to strike one of four cities after August 3.[214] The final list of possible targets consisted of Hiroshima, Kokura, Niigata, and Nagasaki.[215] Nagasaki was added to the list because of its military-industrial facilities. The city produced ordnance, ships, military equipment, and other war materials.[216] It was a densely populated city with wooden residences built close together and adjacent to factories.[217]

The Potsdam Proclamation warning Japan to surrender or face prompt and utter destruction was issued the next day. After the war, Truman claimed he gave the final order to drop the bombs while returning from Potsdam.[218] No documentation has been found to substantiate a direct order from him during his return trip.[219] The final written order to the military was Stimson's July 25 directive.[220] The AAF dropped atomic bombs on Hiroshima and Nagasaki on August 6 and 9, respectively. Japan soon surrendered; had it not done so, the U.S. military anticipated building and employing up to nine more atomic bombs for tactical use during an invasion of the Japanese mainland.[221]

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[212] JONES, *supra* note 199, at 530.
[213] Manhattan Eng'r Dist., *supra* note 5, at 16.
[214] JONES, *supra* note 199, at 534.
[215] *Id*.
[216] Manhattan Eng'r Dist., *supra* note 5, at 20.
[217] *Id*. at 21.
[218] JONES, *supra* at note 199, at 533–34 n.32.
[219] WALKER, *supra* note 4, at 61.
[220] MISCAMBLE, *supra* note 4, at 78.
[221] Interview by Forrest Pogue with General George Marshall, U.S. Army (Ret.), February 11, 1957, 424 http://marshallfoundation.org/library/wp-content/uploads/sites/16/2014/05/Tape_14.pdf

> There were supposed to be nine more bombs completed in a certain time, and they would be largely in time for the first landing in the southern tip of Japan. . . [W]e were having in mind exploding one or two bombs before these landings and then having the landing take place, and reserving the other bomb or bombs for the later movements of any Japanese reinforcements that might try to come up. And it was decided then that the casualties from the actual fighting would be very much greater than might occur from the after-effects of the bomb action. So there were to be three bombs for each corps that was landing. One or two, but probably one, as a preliminary, then this

Photographs of Hiroshima damage reached President Truman in the days after the strike. On August 10, 1945, he informed his cabinet that no further atomic bombs would be dropped without his express approval.[222] He didn't like "killing all those kids."[223] The U.S. atomic policy was not immediately refined at the Presidential level, nor were there significant efforts at clarity on the laws of war governing the new weapons.

Overall, the law of war does not appear to have been a specific discussion point during the target selection process for the atomic bombs.[224] Decision makers picked targets based on criteria consistent with the broad definition of military objectives, but their discussions were not framed in exactly the same terms used by military air war planners elsewhere. Secretary Stimson removed Kyoto from the target list based on concerns over irreversible damage to Japan's cultural and religious heritage—perhaps an instinctive acknowledgement of the rules adopted at The Hague. Moreover, decision makers did not appear to appreciate that nuclear weapons would have different effects from the equivalent mass of conventional weapons, other than a visual effect and corresponding psychological impact.[225] In the end, the atomic bombs were employed consistently with the law of war as it existed for aerial bombardment in August 1945: the attacks were directed at broadly defined military

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> landing, then another one further inland against the immediate supports, and then the third against any troops that might try to come through the mountains from up on the Inland Sea. That was the rough idea in our minds.

Id.

[222] WALKER, *supra* note 4, at 86.

[223] *Id.*

[224] Although there is no documentation of legal discussions regarding the use of the bomb prior to August 1945, Truman later wrote,

> In deciding to use this bomb I wanted to make sure that it would be used as a weapon of war in the manner prescribed by the laws of war. That meant that I wanted it dropped on a military target. I had told Stimson that the bomb should be dropped as nearly as possible upon a war production center of prime military importance.

HARRY TRUMAN, MEMOIRS, VOL. I: YEAR OF DECISIONS 420 (1955).

[225] WAR DEP'T NOTES, *supra* note 203. No systematic requirement to conduct legal reviews on new weapons existed at this time. MICHAEL BOTHE ET AL., NEW RULES FOR VICTIMS OF ARMED CONFLICTS: COMMENTARY ON THE TWO 1977 PROTOCOLS ADDITIONAL TO THE GENEVA CONVENTIONS OF 1949, 230 (2013).

objectives and achieved through the destruction of large areas, while civilians working at or living near the objects were given little consideration. As Professor Tammy Davis Biddle pointed out, "On 6 August, over Hiroshima, no moral threshold was crossed that had not been crossed much earlier in the year."[226]

III. Dawn of the Cold War: The Truman Years

By the end of the Cold War, nuclear war strategy and targeting seemed to differ from the law of war. At the beginning of the Cold War this difference did not exist. War plans called for nuclear strikes on cities, which carried the legal regime from the end of the World War II forward wholly intact. Cities were synonymous with military industry. In the face of the emerging threat of communist domination, the U.S. military began embracing concepts foresworn during the world war, such as using bombing to undermine enemy morale and to abandon precision targeting in favor of creating "bonus" collateral damage. The new United Nations Charter and Geneva Conventions did nothing to moderate targeting plans for atomic weapons.

A. International Law in the Aftermath of World War II

While the law of war relating to nuclear conflicts was dormant, international law was getting increasing attention. On June 26, 1945, barely two months prior to the end of the Second World War, the Charter of the United Nations was signed. The Charter aspired to "save succeeding generations from the scourge of war" and contained terms intended to prevent conflict.[227] With this purpose in mind, the U.N. Charter is widely understood to have established the modern *jus ad bellum*. Parties to the charter agreed to "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."[228] Self-defense against "armed attack" was

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[226] BIDDLE, *supra* note 96, at 270.

[227] U.N. Charter Preamble. Aspirations of a U.N. Charter could be found in the 1928 Kellogg-Briand Pact, which renounced war as an instrument of policy and required disputes to be settled peacefully. Treaty Providing for Renunciation of War as an Instrument of National Policy, Aug 28, 46 Stat. 2343, 2 Bevans 732.

[228] U.N. Charter art. 2(4).

authorized.[229] The Charter, however, created no specific obligations on how wars would be fought, once started.

Nations were also able to agree on new *jus in bello* rules governing armed conflicts. These had been developed in Geneva after the Second World War with the intention of filling the serious gaps in international humanitarian law. Nations agreed upon four conventions, known as the Geneva Conventions for the Protection of War Victims of August 12, 1949. They supplemented older treaties, like the Hague Conventions, with rules designed to protect war victims and those who were out of combat and replaced preceding iterations of the Geneva Conventions. The four Geneva Conventions collectively prohibited reprisals from being carried out against enemy wounded, sick, or shipwrecked, prisoners of war, or civilians in the hands of their nation's enemy or in occupied territory.[230]

The 1949 Geneva Conventions had few implications relevant to targeting principles in general. Hospitals and mobile medical units were placed off limits as object of attack, but potential defenders were obligated to keep them away from military objectives.[231] Medical personnel, transport and supplies received similar protections with similar duties for the defender.[232] Enemy civilian populations, however, did not receive blanket protection from attack because the drafters of the Conventions were careful "not to undermine the validity of Geneva Law or the credit attached to it by introducing rules whose observance could not be assured."[233] The purpose of the Convention Relative to the Protection of Civilian Persons in Time of War was to "protect a strictly defined category of civilians from arbitrary action on the part of the enemy, and not from the dangers due to the military operations themselves."[234]

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[229] U.N. Charter art. 51.

[230] Geneva Convention for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field (GC I), art. 46; Geneva Convention for the Amelioration of the Condition of the Wounded, Sick and Shipwrecked Members of Armed Forces at Sea (GC II), art. 47; Geneva Convention Relative to Treatment of Prisoners of War (GC III), art. 13; Geneva Convention Relative to the Protection of Civilian Persons in Time of War (GC IV), art. 33.

[231] GC I art. 19; GC IV art. 18.

[232] GC I arts. 20, 24–25; GC IV arts. 20–23. Chaplains are also protected under GC I art. 20. *Id.*

[233] COMMENTARY ON THE GENEVA CONVENTION RELATIVE TO THE PROTECTION OF CIVILIAN PERSONS IN THE TIME OF WAR 5–6 (Jean Pictet, ed., 1958).

[234] *Id*. at 10.

B. Historical and U.S. Policy Developments

Despite the positive developments in international law, the U.S. military's initial nuclear strategy echoed the darkest aspects of the Second World War. The Joint Chiefs of Staff understood the Soviet Union's objective to be world domination, and that it believed peaceful coexistence between communist and capitalist countries to be impossible over the long run.[235] In light of this threat, the U.S. military prepared for war. Atomic bombs would be used against industrial areas and "centers of population with a view to forcing an enemy state to yield through terror and disintegration of national morale."[236] This planning statement suggests that as much as the United States had previously avoided any express support of terror bombing, the Joint Chiefs now endorsed it.

The Joint Chiefs developed initial war plans for potential hostilities with the Soviet Union, calling for bombing the same type of industry struck by the Allies during the Second World War.[237] They officially began preparing war plans through studies known as the PINCHER series.[238] These led to the first joint war plan, BROILER, which assumed the Soviets would use atomic weapons against the U.S.[239] To counter the

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[235] JAMES SCHNABEL, THE JOINT CHIEFS OF STAFF AND NATIONAL POLICY, 1945-1947, 48 (1996). The Soviets subjugated satellite states, thwarted U.S. peace settlement efforts, and kept excessive forces in occupied areas. *Id*. In Eastern Europe, were deployed in a manner to facilitate attacks on the west. *Id*. The Soviets also built air bases in eastern Siberia, threatening U.S. territory. *Id*. In 1946, Soviet Premier Stalin declared that a peaceful international order was impossible under the system of capitalistic development of the world's economy. *Id*. at 40.

[236] Gian Gentile, *Planning for Preventive War, 1945–1950*, JOINT FORCE QUARTERLY 69 (2000) (quoting JOINT CHIEFS OF STAFF, OVER-ALL EFFECT OF ATOMIC BOMB ON WARFARE AND MILITARY ORGANIZATION, OCTOBER 30, 1945 *in* AMERICA'S PLANS FOR WAR AGAINST THE SOVIET UNION, 1945–1950, vol. 1, 4 (David A. Rosenberg & Steven T. Ross, eds., 1989)).

[237] SCHNABEL, *supra* note 235, at 74. Planners and the Joint Intelligence Committee within the Joint Chiefs of Staff organization developed a concept for a joint war plan prior to the PINCHER studies, but did not forward it to the Joint Chiefs. *Id*. at 70-72.

[238] KENNETH CONDIT, THE JOINT CHIEFS OF STAFF AND NATIONAL POLICY, 1947-1949, 153 (1996). The PINCHER plans were not clear about whether the U.S. would use atomic bombs, but did assert that the any war with the Soviet Union would become a total global conflict. STEVEN ROSS, AMERICAN WAR PLANS 1945-1990 28 and 34 (1988).

[239] *Id*. Although BROILER was drafted and slightly modified in a version named FROLIC, neither version was transmitted to the services. *Id*. at 156. The BROILER/FROLIC plans were designed for a near-term war; long range plans known as CHARIOTEER and BUSHWHACKER were also drafted, but were not high development priorities. *Id*. at 154.

Soviets, the primary objective of BROILER was the destruction of the Soviets' war-making capacity, while the suffering of the civilian population was seen as "bonus damage."[240] These early Cold War plans also had to recognize the scarcity of atomic bombs in the U.S. inventory as well as the limited range of bombers and available bases.[241] Thus, early plans were dominated by the conventional war-fighting component; atomic bombs were reserved for targets of sufficient size and importance to Soviet war making capabilities, which mainly resided in cities.[242]

During the 1948 Berlin Crisis, international tensions ran high and the Truman administration developed the first nuclear war policy, known as National Security Council 30 (NSC-30).[243] This document officially gave broad authority to the military for planning, with the President retaining ultimate employment authority.[244] The principal objective of NSC-30 was to affect Soviet military operations, the long-term logistical support to the military, and the Soviet will to fight.[245]

In keeping with the policy's priorities, military planners maintained the model of striking military-industrial targets in a new emergency war plan, titled HALFMOON.[246] This plan, like BROILER before it, considered destroying enemy morale through direct attacks on urban population centers.[247] The rationale was likely based on the atomic bomb's effectiveness against urban centers[248] and a lack of specific

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[240] Gentile, *supra* note 236, at 69.

[241] FREEDMAN, *supra* note 134, at 48.

[242] EDWARD KAPLAN, TO KILL CITIES 27 (2015). In July 1947, the Joint War Plans Committee (JPWC) submitted a pre-BROILER plan that called for dropping thirty-four atomic bombs on twenty-four Soviet cities. ROSS, *supra* note 238, at 56. The JWPC believed this atomic offensive would eliminate 86% of Soviet airframe production, 99% of aircraft engine plants, 56% of arms plants, 99% of tank and self-propelled gun plants, and 52% of crude oil refineries. *Id*.

[243] NSC-30 *reprinted in* United States Department of State, FOREIGN RELATIONS OF THE UNITED STATES, 1948 vol. 1, 625-628 (1976); David A. Rosenberg, *Nuclear War Planning*, *in* THE LAWS OF WAR: CONSTRAINTS ON WARFARE IN THE WESTERN WORLD 169 (Michael Howard et. al., eds., 1994).

[244] Rosenberg, *Nuclear War Planning*, *supra* note 243, at 169.

[245] Desmond Ball, *Toward a Critique of Strategic Nuclear Targeting*, *in* STRATEGIC NUCLEAR TARGETING, 25 (Desmond Ball & Jeffrey Richelson, eds., 1986).

[246] *Id*. at 168; FREEDMAN, *supra* note 134, at 52.

[247] Gentile, *supra* note 237, at 54.

[248] The military's focus on military-industrial targets was supported by a 1947 Joint Chiefs of Staff report on atomic blasts in Japan and tests in the Bikini islands, which recommended against making ships at sea or troop concentrations primary targets. "The Evaluation of

intelligence, which would have been needed to identify specific systems within the Soviet Union.[249] According to the official 1948 evaluation of the plan, the destruction of the Soviet urban-industrial systems constituted a valid military objective, finding that the atomic attacks on these systems "should so cripple the Soviet industrial and control centers as to reduce drastically the offensive and defensive power of their armed forces."[250] HALFMOON specifically called for the use of 133 atomic bombs against 70 Soviet cities, including Moscow and Leningrad.[251] After urban-industrial areas, which were the highest-priority targets, the plans called for destruction of petroleum refining facilities to "practically destroy the offensive capabilities of the USSR and seriously cripple its defensive capabilities[,]" then for major attacks against the Soviet hydro-electric system, and finally for attacks on the Soviet transportation system.[252]

The 1949 updated plan for responding to Soviet aggression, TROJAN, contained a detailed strategic bombing annex. It contemplated using atomic bombs against "selected industrial units" in urban areas . . . which available intelligence indicates to include the heart of known industry most essential to the war-making capacity of the U.S.S.R."[253] No atomic weapons were planned for attacks outside the Soviet Union.[254] The rationale was likely based on the atomic bomb's effectiveness against

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the Atomic Bomb as a Military Weapon." The Final Report of the Joint Chiefs of Staff Evaluation Board for Operation Crossroads, June 30, 1947, 12. The report found, "the bomb is pre-eminently a weapon for use against human life and activities in large urban and industrial areas, as well as seaports." *Id*. at 32. The report went on to say that the bomb could be used against "Dams, ship canals, naval bases, immobilized naval and merchant fleets concentrated in storage areas, air fields, troops engaged in amphibious landings or concentrated in staging areas" if special circumstances gave them sufficient value. *Id*.

[249] David Rosenberg, *U.S. Nuclear War Planning*, *in* STRATEGIC NUCLEAR TARGETING 40 (Desmond Ball & Jeffrey Richelson, eds., 1986).

[250] Joint Chiefs of Staff (JCS) 1952/1, Memorandum, Chief of Staff, USAF to Joint Chiefs of Staff, Evaluation of the Current Strategic Air Offensive Plans, December 21, 1948, *reprinted in* CONTAINMENT: DOCUMENTS ON AMERICAN POLICY AND STRATEGY, 1945–1950 357–58 (Thomas Etzold & John Gaddis, eds., 1978) [hereinafter JCS 1952/1].

[251] Jeffrey Richelson, *Population Targeting and U.S. Strategic Doctrine*, *in* STRATEGIC NUCLEAR TARGETING 238 (Desmond Ball and Jeffrey Richelson, eds., 1986); FREEDMAN, *supra* note 134, at 52.

[252] JCS 1952/1, *supra* note 250, at 358.

[253] Joint Chiefs of Staff (JCS) 1953/1. Report by the Ad Hoc Committee to the Joint Chiefs of Staff on Evaluation of Effect on Soviet War Effort Resulting From the Strategic Air Offensive, May 12, 1949 at 34 [hereinafter JCS 1953/1]. This analysis contain no discussions of legal issues.

[254] *Id*. at 35.

urban centers[255] and a lack of specific intelligence, which would have been needed to identify specific systems within the Soviet Union.[256] TROJAN specifically called for the use of 133 atomic bombs against seventy Soviet cities, including Moscow and Leningrad.[257] The military recognized that the effects of the bombing would not be limited to the destruction of specific targets, but treated the additional damage as a benefit. As the analysis of the plan explained:

> Although aiming points are selected primarily to focus the damage on specific industries and industrial concentrations, it is inevitable that actual damage will be indiscriminate as to types and functions of other installations within the target areas. This will affect adversely all phases of Soviet economy and the ability of the Soviet people to carry on effectively with work necessary for the prosecution of a war.[258]

Although the military believed bombing cities would create immense hardships on the population, the analysis of the plan recognized that the "atomic offensive would not, *per se*, bring about capitulation, destroy the roots of Communism or critically weaken the power of the Soviet leadership to dominate the people."[259] Instead, it would validate Soviet propaganda, stimulate resentment against the United States, unify the population, and increase their will to fight.[260] The atomic bombs would not stop a Soviet advance into Western Europe, but would "produce certain psychological and retaliatory reaction detrimental to the

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[255] The military's focus on military-industrial targets was supported by a 1947 Joint Chiefs of Staff report on atomic blasts in Japan and tests in the Bikini islands, which recommended against making ships at sea or troop concentrations primary targets. "The Evaluation of the Atomic Bomb as a Military Weapon." The Final Report of the Joint Chiefs of Staff Evaluation Board for Operation Crossroads, June 30, 1947, 12. The report found, "the bomb is pre-eminently a weapon for use against human life and activities in large urban and industrial areas, as well as seaports." *Id*. at 32. The report went on to say that the bomb could be used against "Dams, ship canals, naval bases, immobilized naval and merchant fleets concentrated in storage areas, air fields, troops engaged in amphibious landings or concentrated in staging areas" if special circumstances gave them sufficient value. *Id*.

[256] Rosenberg, *U.S. Nuclear War Planning*, *supra* note 249, at 40.

[257] JCS 1953/1, *supra* note 253, at 1; CONDIT, *supra* note 238, at 158.

[258] JCS 1953/1, *supra* note 253, at 95.

[259] *Id*. at 30.

[260] *Id*.

achievement of Allied war objectives"—nevertheless, the atomic bomb was ultimately seen as necessary to deny Soviet military objectives and as it was "the only means of rapidly inflicting shock and serious damage to vital elements of the Soviet war-making capacity."[261]

In 1949, TROJAN gave way to OFFTACKLE, an emergency war plan based on National Security Council and Presidential guidance from the previous year.[262] The new guidance endeavored to use means short of war to reduce Soviet power and influence and to bring the Russians into conformity with the purposes and principles of the UN Charter; U.S. military action would only be needed if the Soviets miscalculated U.S. resolve or intentions, or if the U.S. miscalculated Soviet reactions.[263] OFFTACKLE was similar to its predecessor, but was more directive in the need to "destroy" Soviet war-making capacity.[264] It also included a new objective to thwart Soviet advances in Western Europe.[265] According to the official history of the Joint Chiefs of Staff, OFFTACKLE would use 292 atomic bombs (and 17,610 tons of conventional bombs) over three months to disrupt Soviet industry, eliminate political and administrative controls of the Soviet government over its people, undermine the will of the Soviet government and people to continue the war, and disarm the Soviet military.[266] The plan's target list consisted of petroleum refineries, electric power plants, submarine construction facilities, aviation fuel production, and other war-supporting industries.[267] The destruction of these targets was expected to bring an immediate stoppage of major sectors of the Soviet war-supporting industry through loss of electrical power, prolonged by chaos and possible panic among the civilian workforce.[268]

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[261] *Id*. at 32.

[262] CONDIT, *supra* note 238, at 160. The policy guidance was found in NSC 20/4. The DROPSHOT plan was also developed by the Joint Chiefs of Staff in 1949—it was a long term contingency plan for potential war in 1957. DROPSHOT THE AMERICAN PLAN FOR WORLD WAR III AGAINST RUSSIA IN 1957 1 (Anthony Brown, ed., 1978).

[263] NSC 20/4, *U.S. Objectives with Respect to the USSR to Counter Soviet Threats to U.S. Security*, November 23, 1948, *reprinted in* CONTAINMENT: DOCUMENTS ON AMERICAN POLICY AND STRATEGY, 1945–1950, *supra* note 250, at 203, 208-09.

[264] CONDIT, *supra* note 238, at 161.

[265] *Id*.

[266] *Id*.

[267] *Id*.

[268] *Id*.

In August, 1949, the Soviets broke the United States' monopoly on atomic weapons.[269] Following the Soviet test, the United States decided to develop thermonuclear weapons.[270] The new weapons harnessed fusion reactions with yields many times greater than the atomic bombs that relied upon fission.[271] As United States nuclear weapon capabilities and stockpile increased, the nuclear targeting list expanded to counterforce options in addition to city targets.[272] For example, Eastern Bloc military installations were added to the target set in 1949 in order to slow a potential invasion of Western Europe.[273]

The concerns over the Soviets increased. The U.S. national security policy, published in 1950, emphasized the dangers of Soviet aggression and advocated a more energetic response by the United States and its allies.[274] The imbalance in conventional forces between the West and the Soviet Bloc meant that nuclear weapons could not be held in reserve, which precluded the United States from being able to make any "no first use" declarations.[275]

The resulting war plan focused on efficient use of atomic weapons. It dedicated 231 weapons against 104 cities to destroy 90% of Soviet aircraft assembly locations, 65% of military shipbuilding, 74% of iron production, and 88% of tank production.[276] Planners also recognized the need to protect the American homeland and added Soviet atomic weapon delivery capabilities to the list of targets.[277] General LeMay, as the Commander of Strategic Air Command, strongly opposed targeting isolated objectives like electrical power generating complexes because they required

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[269] Freedman, *supra* note 134, at 60.
[270] *Id*.
[271] *Id.* at 62.
[272] "Counterforce" may be generally thought of as countering the enemy's military forces. For example, when asked about the origins of counterforce strategy, LeMay explained, "Its origins predate Roman times. You attack the enemy armed force and you defeat it in the field. It is a basic principle of war." Max Rosenberg, *Oral History Interviews of* General Curtis LeMay, Jan. 1965 (on file with author).
[273] Rosenberg, *Nuclear War Planning*, *supra* note 243, at 170.
[274] FREEDMAN, *supra* note 134, at 66. NSC-68 supplemented NSC-30 by laying out a rationale for a more active national policy toward the USSR; NSC-30 dealt with the narrower issues of who had authority to order nuclear attacks (the President) and under what conditions (whenever he thought they were warranted).
[275] Freedman, *supra* note 134, at 71.
[276] KAPLAN, *supra* note 242, at 29.
[277] *Id.* at 83; Rosenberg, *Nuclear War Planning supra* note 243, at 170.

reconnaissance, would be difficult for strike crews to identify, and lacked the "bonus damage" found in urban area targets.[278] The "bonus damage" concept harkened back to the Second World War's emphasis on primarily striking military objectives with the secondary effect of killing workers and sending a psychological message. It also appears to stand in contrast to the 1949 report from a multi-service committee chaired by Air Force Lieutenant General H.R. Harmon. The Harmon Report concluded that attacks on Soviet cities would harden enemy resolve and validate Soviet propaganda rather than reducing morale.[279]

At the outset of the Korean conflict, the Truman administration considered counter-force options for potential nuclear strikes. Truman was concerned about the Soviets joining the fight on the North Korean side and asked if the United States could "knock out their bases in the Far East."[280] The military answered that the task could be accomplished, but only through the use of atomic bombs.[281] Truman then ordered the Air Force to "prepare plans to wipe out all Soviet air bases in the Far East."[282] He clarified that the order was not to take action; it was limited to making plans.[283]

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[278] Rosenberg, *U.S. Nuclear War Planning supra* note 249, at 40–41.

[279] Gentile, *supra* note 236, at 70; FREEDMAN, *supra* note 135, at 53. Perhaps influenced by the Harmon Report, LeMay eventually backed away from "bonus damage" as an effect to be sought, at least publically. During a 1955 interview, he stated:

> I don't think it is humane or effective to attack a people or a population as such. You bring a war to a close when you destroy the capability and break the will of a people to fight. If they have nothing to fight with, you have gone a long way toward breaking their will to continue the struggle . . . .
>
> You don't win wars by terrorizing people. You win wars by destroying targets. Targets are something tangible, not something in people's minds.

We Must Avoid the First Blow: Interview with Gen. Curtis E. LeMay, Chief of U.S. Strategic Command, U.S. NEWS & WORLD REPORT, Dec 9, 1955, at 45.

[280] Memorandum of Conversation, by the Ambassador at Large (Jessup), *reprinted in* FOREIGN RELATIONS OF THE UNITED STATES, 1950 vol. 7, 159 (1976).

[281] *Id*.

[282] *Id*. at 160.

[283] *Id*.

Truman's deferential view of target selection also manifested itself during the Korean conflict. During a news conference in November 1950, the President was asked about the potential use of atomic weapons in the conflict. He refused to rule out the atomic bomb, but then explained, "I don't want to see it used. It is a terrible weapon, and it should not be used on innocent men, women, and children who have nothing whatever to do with this military aggression. That happens when it is used."[284] The President's answer could be understood to be a reference to collateral damage. Truman had expressed a strong desire to avoid killing innocents in his July 25, 1945, journal, and again after seeing the photographs of the Hiroshima devastation.[285] The President's answer during the news conference elicited a follow-on exchange:

> Q. Does that mean, Mr. President, use against military objectives, or civilian—
>
> The President. It's a matter that the military people will have to decide. I'm not a military authority that passes on those things.[286]

Through his answers, President Truman showed concern over civilian casualties. He understood war to be a terrible force and understood the consequences of the atomic bomb, especially after Hiroshima. This—along with related fears of escalation—weighed on his decision to reject calls to use atomic weapons against China during the Korean War.[287]

The legal construct for the early Cold War nuclear targets appears to assume the necessity of total war against the Soviet bloc, focusing on eliminating not only military forces, but also on an adversary's capability

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[284] The President's News Conference, November 30, 1950, *reprinted in* PUBLIC PAPERS OF THE PRESIDENTS, HARRY S. TRUMAN, https://trumanlibrary.org/publicpapers/viewpapers.php?pid=985.

[285] *See* Notes by Harry S. Truman on the Potsdam Conference, July 25, 1945, *supra* note 2; WALKER, *supra* note 4, at 86. Truman later said that atomic bomb use was "far worse than gas or biological warfare because it affects the civilian population and murders them by wholesale." MISCAMBLE, *supra* note 4, at 117.

[286] The President's News Conference, *supra* note 284. Although Truman did not intend it, his discussion of the bomb was perceived as a threat to use it. The British Prime Minister travelled to the United States to discuss preventing the Korean conflict from becoming a major war. HARRY TRUMAN, MEMOIRS, VOL. II: YEARS OF TRIAL AND HOPE 396 (1956).

[287] S. David Broscious, *Longing for International Control, Banking on American Superiority: Harry S. Truman's Approach to Nuclear Weapons*, *in* COLD WAR STATESMEN CONFRONT THE BOMB 34 (John Gaddis et al., eds., 1999).

to wage war through attacks on military industrial centers, which were thought of as synonymous with cities. This policy appeared to be consistent with the law of war, which still embraced Second World War customs.

IV. Massive Retaliation: The Eisenhower Years

The presumption that a war with the Soviets would be a total war continued during the Eisenhower administration; nuclear targeting grew in scale so as to avoid war. As will be discussed, Eisenhower and his administration did not see nuclear weapons as legally different from conventional weapons, but they did understand the catastrophic risks of a nuclear war. Nuclear targeting departed from the traditional laws of war in order to deter nuclear war in light of declared Soviet military strategy, which was to destroy the enemy's economic and political-morale base through bombing.[288]

A. Historical and U.S. Policy Developments: Korean Armistice and New War Plans

Dwight D. Eisenhower was elected to the Presidency in 1952 and war planning against the Soviet bloc continued. In October 1953, Admiral Arthur Radford, Chairman of the Joint Chiefs of Staff, recommended reprioritizing nuclear targets for graduated nuclear strikes.[289] He proposed making the Soviet's military forces the top priority, followed by military support-type targets. Under Radford's proposal, total "unrestricted" responses would only be available in retaliation for attacks on the United States or its allies. President Eisenhower did not follow the recommendation. Throughout his presidency, Eisenhower believed in averting disaster by rapidly responding to any Soviet attack in strength.[290]

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[288] Raymond L. Garthoff, *Air Power and Soviet Strategy*, *in* THE IMPACT OF AIRPOWER 534 (Eugene Emme, ed. 1959). The Soviets announced doctrine calling for long range "attacks on targets deep in the rear of the enemy with the objectives of undermining his military-economic power, affecting the morale of his armies and population, disorganizing communications, and gaining air supremacy." *Id*.

[289] Rosenberg, *Nuclear War Planning*, supra note 243, at 171.

[290] Rosenberg, *U.S. Nuclear War Planning*, *supra* note 249, at 53.

The nuclear strategy under the Eisenhower administration was known as "massive retaliation." It focused on immediate, massive, nuclear, retaliatory strikes on Soviet military-industrial population centers.[291] For example, early administration war plans dedicated over 450 weapons to attacking Soviet sea, air, and air defense targets, with an additional 1226 dedicated to collapsing the Soviet war economy; by the end of the administration over 3300 weapons were dedicated to countering Soviet atomic forces, controlling airspace and retarding land and sea operations, with 245 weapons dedicated to economic targets.[292] This strategy emphasized deterrence. It presumed that any war with the Soviet Union would necessarily escalate into a nuclear war. This approach thereby made the Soviets understand the terrible consequences of starting any war with the West.

In reality, Eisenhower's policy was more "flexible retaliation" with a massive response as one of many options.[293] The massive response was emphasized because of its deterrent value.[294] Flexibility was achieved, in part, due to developments in tactical nuclear weapons that gave the shrinking conventional forces more firepower.[295]

The Eisenhower administration saw significant value in nuclear deterrence and rhetoric. For example, it viewed the threat of nuclear

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[291] George Bunn, *US Law of Nuclear Weapons*, NAVAL WAR COLLEGE REV. 59 (1984). In this context, "retaliation" is simply a response-in-force and is not necessary being used as a legal term. The implication of a retaliatory nuclear exchange resonates with the doctrine of belligerent reprisals. *See supra* section II.A-B. The United States maintained the validity of the reprisal doctrine in the 1950s. *See also* U.S. DEP'T OF ARMY, FIELD MANUAL 27-10, THE LAW OF LAND WARFARE ¶ 497 (1956) [hereinafter 1956 FM 27-10]. Reprisals required an enemy violation of the law of war, careful inquiry into facts and proportionate response for the purpose of enforcing future compliance. *Id*.

[292] KAPLAN, *supra* note 242, at 99.

[293] FREEDMAN, *supra* note 134, at 72, 82.

[294] *Id*. at 69.

[295] *Id*. at 83. Tactical nuclear weapons do not have a precise definition, but are thought of as having relatively short range and less explosive power (in relative terms when compared to the weapons associated with long-range, "strategic" delivery systems), deployed at or near a combat area, and used for striking military targets in that area or directly behind it. Hugh Lynch, *Presidential Control of Nuclear Weapons in Limited War Situations*, 62 U.S. NAVAL WAR COLLEGE INT'L L. STUDIES 504 (1980). The Hiroshima and Nagasaki bombs would likely qualify as tactical weapons, although they had strategic effects. *Id*. The smallest tactical nuclear weapon in 1957 had approximately one-quarter of the explosive power of the Hiroshima and Nagasaki bombs. Ernest May, *Introduction*, *in* COLD WAR STATESMEN CONFRONT THE BOMB 5 (John Gaddis et al., eds., 1999).

weapons as critical to ending the Korean War. During the deadlocked armistice discussions, the United States suggested if progress was not made, it would "move decisively without inhibition in the use of weapons and would no longer be responsible for confining hostilities to the Korean Peninsula."[296] This got the stalled talks moving in February 1953. When they started to break down again, similar statements about expanding the battle area were made.[297] The Administration's words were not merely empty threats. When Eisenhower was briefed that the Communists were building up forces in the "Kaesong sanctuary" created during the armistice negotiations, Eisenhower expressed the view to "consider the use of tactical atomic weapons on the Kaesong area, which provided a good target for this type of weapon."[298] As the National Security Council discussed whether to consult allies, Secretary of State John Foster Dulles then wanted to begin working on breaking down the "false distinction" between nuclear weapons and conventional ones.[299] After the armistice finally suspended the Korean War, Eisenhower also told the military to be prepared to use nuclear weapons to counter a major Communist attack.[300]

Eisenhower again used rhetoric about nuclear weapons to deter Communist China from invading offshore islands held by the Nationalists.[301] Secretary of State John Foster Dulles spoke of reinforcing the Nationalists with the "deterrent of massive retaliatory power."[302] A reporter asked President Eisenhower about the United States will to use small atomic weapons in the event of a war. He replied,

> Now, in any combat where these things can be used on strictly military targets and for strictly military purposes, I see no reason why they shouldn't be used just exactly as you would use a bullet or anything else.

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296 FREEDMAN, *supra* note 134, at 80.
297 *Id*.
298 Memorandum of Discussion at the 131st Meeting of the National Security Council Wednesday, February 11, 1953, *in* FOREIGN RELATIONS OF THE UNITED STATES, 1952-1954 vol. 15, part 1, 770 (1984).
299 *Id*.
300 Memorandum of Discussion at the 179th Meeting of the National Security Council, Friday, January 8, 1954, *in* FOREIGN RELATIONS OF THE UNITED STATES, 1952 –1954 vol. 15, part 2, 1706 (1984).
301 Andrew Erdmann, *War No Longer Has Any Logic Whatever: Dwight D. Eisenhower and the Thermonuclear Revolution*, *in* COLD WAR STATESMEN CONFRONT THE BOMB 100 (John Gaddis et al., eds., 1999).
302 *Id*.

> I believe the great question about these things comes when you begin to get into those areas where you cannot make sure that you are operating merely against military targets. But with that one qualification, I would say, yes, of course they would be used.[303]

As the former Supreme Allied Commander in the European theater of the Second World War, Eisenhower would have understood the importance of target selection. His press conference, in conjunction with his guidance elsewhere, demonstrates his belief that striking military objects with atomic weapons would be as lawful as any other weapon. He was also aware of the "great question"—asking how to account for proportionality and collateral damage when employing massive weapons near civilian populations.

In 1956, Strategic Air Command issued a study on requirements for future atomic weapons reflected the emphasis on a massive nuclear response, but with little apparent concerns for proportionality or collateral damage concerns.[304] The study identified the top mission priority in a potential war as the destruction of Soviet bloc air power, while the secondary mission would be the systematic destruction of Soviet bloc war-supporting infrastructure.[305] In discussing the need for using surface bursts of nuclear weapons, which were primarily needed to destroy adversary airfields and underground facilities, the report said it considered the impact on "friendly forces and peoples", but "the requirement to win the Air Power Battle is paramount to all other considerations. If the Air Power Battle is not won, the consequences to the friendly world will be far more disastrous than the effects of fall-out contamination in the peripheral areas."[306] The study's authors showed no concern for the Soviet bloc civilians, as an analysis of the report explained that the "systematic destruction" mission explicitly targeted the "population" as a distinct category in all cities, including Beijing, Moscow, Leningrad, East Berlin,

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[303] The President's News Conference, March 16, 1955, *reprinted in* PUBLIC PAPERS OF THE PRESIDENTS, DWIGHT D. EISENHOWER, http://www.presidency.ucsb.edu/ws/index.php?pid=10434.

[304] Strategic Air Command, *Atomic Weapons Requirements Study for 1959*, SM 129-56, (June 15, 1956), http://nsarchive.gwu.edu/nukevault/ebb538-Cold-War-Nuclear-Target-List-Declassified-First-Ever/documents/section1.pdf.

[305] *Id.* at 6.

[306] *Id*. at 13.

and Warsaw.[307] While the Strategic Air Command authors still believed in "bonus damage," specifically targeting the adversary's population would have been abandoning all pretenses of needing an underlying concrete military objective to destroy morale or create a psychological effect. Eisenhower probably did not object because he believed that all sides in a nuclear war would attack each other's population centers, which perfected deterrence.[308]

The U.S. military also began preparing an alternative "retaliatory target list" in 1956.[309] The concept was a list of the highest priority targets to be struck in the event of a Soviet first strike wiping out all but 25% of the American nuclear capability.[310] This list emphasized Soviet government control and population centers, and allocated remaining strike packages to target the adversary's nuclear capabilities.[311] Eisenhower rejected the concept of a significant alternative strike list in favor of an integrated, simultaneous attack plan; he did not want to withhold a large amount of forces from the initial U.S. response.[312] This simultaneous attack plan appeared to emphasize deterrence, the effectiveness of the U.S. first strike against Soviet aggression, and marked a concern over the inability of U.S. forces to strike back. Retaliatory targeting was not a recognized formal legal doctrine, but it certainly echoes the broader notions of reciprocity underlying international law.[313] Moreover, technical legal concerns did not override national security imperatives when the very survival of the Western democracies was at stake.

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[307] William Burr, ed., *U.S. Cold War Nuclear Target Lists Declassified for First Time*, *National Security Archive Electronic Briefing Book No. 538* (Dec. 22, 2015), http://nsarchive.gwu.edu/nukevault/ebb538-Cold-War-Nuclear-Target-List-Declassified-First-Ever/.

[308] KAPLAN, *supra* note 242, at 124–25.

[309] Rosenberg, *Nuclear War Planning*, *supra* note 242, at 174.

[310] *Id*.

[311] *Id*.

[312] Rosenberg, *U.S. Nuclear War Planning*, *supra* note 249, at 54.

[313] According to a customary international law study by the International Red Cross, the obligation of a State to respect international humanitarian law does not depend on reciprocity. JEAN-MARIE HENCKAERTS AND LOUISE DOSWALD-BECK, CUSTOMARY INTERNATIONAL HUMANITARIAN LAW, VOL. I: RULES 498 (2005). The law of war, however, traditionally has been conditioned on notions of reciprocal obligation and observation. Watts, *supra* note 24, at 368. The United States DoD has explained that while many law-of-war rules do not require reciprocal compliance, reciprocity may nonetheless play a role in the application, operation or enforcement of specific rules. LAW OF WAR MANUAL, *supra* note 19, ¶ 3.6.

Nuclear targeting guidance was refined based on studies and analysis. In 1958, Eisenhower directed the NSC to determine the type of targets to best deter aggression.[314] A Navy initiative had argued that strikes on urban-industrial sites should be primary targets, not population centers or military forces.[315] Contemporaneously, a RAND Corporation study recommended targeting Soviet nuclear capabilities while avoiding urban targets.[316] The RAND theory was that if the United States avoided attacking Soviet cities, the Soviets would reciprocate.[317] The argument against attacking Soviet nuclear forces was centered on not wasting U.S. strike assets on Soviet weapons that had already been launched; such attacks would be directed against deserted airfields and empty silos.[318] The NSC staff issued its report in 1960, recommending a mix of counter-force and urban-industrial targets.[319]

The effort ultimately resulted in a comprehensive attack plan, known as Single Integrated Operational Plan (SIOP) 62, designed to eliminate the military capabilities of the Soviets, Chinese, and their satellite nations—the Sino-Soviet Bloc.[320] The plan, which built in considerable redundancies to ensure destruction of the adversary's critical assets, was designed to be implemented wholesale and was thereby inflexible. Soviet nuclear weapon capabilities received top priority, followed by primary military and government control centers.[321] The plan also called for attacks on 151 urban industrial targets.[322] Major cities and targets in China

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314 Rosenberg, *Nuclear War Planning*, *supra* note 243, at 174.

315 *Id*.

316 Herbert Goldhamer and Andrew Marshall, with the assistance of Nathan Leites, The Deterrence and Strategy of Total War, 1959-1961: A Method of Analysis, U.S. Air Force PROJECT RAND Research Memorandum RM-2301, April 30, 1959.

317 *Id*. at 186-87.

318 Rosenberg, *U.S. Nuclear War Planning*, *supra* note 249, at 50.

319 Desmond Ball, *The Development of the SIOP, 1960–1983*, *in* STRATEGIC NUCLEAR TARGETING, 40 (Desmond Ball & Jeffrey Richelson, eds. 1986); Rosenberg, *Nuclear War Planning*, *supra* note 243, at 174-75. Secretary of Defense Thomas Gates established the Joint Strategic Target Planning Staff (JSTPS) under the Joint Chiefs of Staff in August 1960. Gen. Thomas Power, *The U.S. Nuclear Team: Unification in Action*, speech at Armed Forces Day Luncheon, Detroit, Mich., May 14, 1964 *reprinted in* 30:18 VITAL SPEECHES OF THE DAY 553 (July 1, 1964). The JSTPS was responsible for integrating requirements from the different services and then preparing the National Strategic Target List and the SIOP for attacking them. *Id.* at 554.

320 Ball, *The Development of the SIOP, 1960–1983*, *supra* note 319, at 62; Rosenberg, *Nuclear War Planning*, *supra* note 243, at 175

321 Rosenberg, *U.S. Nuclear War Planning*, *supra* note 249, at 35.

322 *Id*.

and Soviet satellite states could be spared, but doing so risked degrading the overall plan.[323] Furthermore, sparing cities would not have necessarily saved significant civilian casualties due to the proximity of military targets to cities and the effects of radioactive fallout.[324] The SIOP-62 may have maximized operational simplicity, but it did so by trading off some of its strategic rationale, especially by treating China, the Soviet Union and other nations as a singular adversary.[325] These nations had formed a military alliance, although they did not always act in unison or agreement.[326] Potential legal concerns over such an attack plan against multiple countries would have been mitigated by the fact that the document was only a plan for a worse-case scenario and not an execution order.

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[323] Rosenberg, *Nuclear War Planning*, *supra* note 243, at 175. President Kennedy was told that executing a portion of the plan involved "certain grave risks"—notably the fact that U.S. weapons withheld for later use could be destroyed by the adversary's strikes. *SIOP-62 Briefing*, JCS 2056/281 *reprinted at* Scott Sagan, *SIOP-62: The Nuclear War Plan Briefing to President Kennedy*, 12 INT'L SECURITY 22, 50 (1987), http://belfercenter.ksg.harvard.edu/files/CMC50/ScottSaganSIOP62TheNuclearWarPlan BriefingtoPresidentKennedyInternationalSecurity.pdf.

[324] *SIOP-62 Briefing*, JCS 2056/281 *reprinted in* Sagan, *SIOP-62: The Nuclear War Plan Briefing to President Kennedy*, *supra* note 323, at 50.

[325] Sagan, *SIOP-62: The Nuclear War Plan Briefing to President Kennedy*, *supra* note 323, at 23.

[326] The Soviet Union formed a multilateral treaty of friendship, cooperation, and mutual assistance with Eastern European Communist nations at Warsaw in 1955, which became known as the Warsaw Pact. Editorial Note, FOREIGN RELATIONS OF THE UNITED STATES, 1955-1957, EASTERN EUROPE, vol. 25, 33 (1990). The Soviet Union and People's Republic of China entered a mutual defense treaty in 1950. Editorial Note, FOREIGN RELATIONS OF THE UNITED STATES, 1950, EAST ASIA AND THE PACIFIC, vol. 6, 311 (1976). Although it later deteriorated, the Sino-Soviet alliance was viewed as a strong during its first decade. By 1954, the U.S. Secretary of State was reporting, "the ChiComs are engaged in building up a war establishment and are motivated by a hostility to the United States which is, on the surface, more virulent than that of Soviet Russia . . . ." Report by the Secretary of State to the National Security Council, *reprinted in* United States Department of State, FOREIGN RELATIONS OF THE UNITED STATES, 1952-1954, CHINA AND JAPAN, vol. 14, 809, 811 (1985). *See also* National Intelligence Estimate (NIE) 10-7-54, *reprinted in* United States Department of State, FOREIGN RELATIONS OF THE UNITED STATES, 1952-1954, 930, 935; NIE 100-3-60, *reprinted in* United States Department of State, FOREIGN RELATIONS OF THE UNITED STATES, 1958–1960, CHINA, vol. 19, 703, 704 (1996); NIE 13-60, *reprinted in* United States Department of State, FOREIGN RELATIONS OF THE UNITED STATES, 1958-1960, 740-41. While NIE 13-60 predicted the Sino-Soviet alliance would hold together against the West, it did make note of the growing estrangement between the two allies.

B. Legal Considerations and Early Arms-Control Treaties

National war plans under the Eisenhower Administration did not appear to consider nuanced law-of-war questions. Nuclear weapons were, as a matter of policy, considered the same as conventional weapons from a military point of view—although the President still reserved release authority.[327] They were to be used when required to achieve national objectives.[328] From one legal perspective, war plans appeared to be a continuation of strategic and retaliatory bombing concepts existing at the end of the Second World War.[329] Nuclear weapons were no longer just directed at enemy cities, specific counterforce objectives were prioritized. On the other hand, including enemy "population" as a distinct category represented an abandonment of the law of war.[330] For the most part, no legal restraints on potential nuclear war plans were articulated during this period. *Lex specialis* for nuclear weapons did begin to emerge, however, in the form treaties baring the use of nuclear weapons in specific locations.

While Eisenhower did not give nuclear weapons special legal status, he did understand their devastating potential, especially as Soviet capabilities increased. During escalating tensions over Berlin in 1959, Eisenhower held a series of press conferences where he tried to deter Soviet aggression by explaining that it would be in everyone's interests to avoid armed conflict because of potential escalation.[331] He warned that war was not a way to maintain order:

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[327] NSC-5810 reprinted in United States Department of State, FOREIGN RELATIONS OF THE UNITED STATES, 1968-1960 vol. 3, 102 (1996).

[328] *Id*.

[329] GEORGE SCHWARZENBERGER, THE LEGALITY OF NUCLEAR WEAPONS 19 (1958); LASSA OPPENHEIM, INTERNATIONAL LAW, vol. II, 350 (H. Lauterpacht, ed., 7th ed. 1952).

[330] Law-of-war norms prohibiting the targeting of civilian populations without a nexus to a military objective was well documented in the 1950s. *See e.g.*, SPAIGHT, AIR POWER AND WAR RIGHTS 3D, *supra* note 77, at 277; OPPENHEIM, *supra* note 329, at 526; Hamilton DeSaussure, *International Law and Aerial Bombing*, AIR U.Q. REV. 22, 32 (1952); MORRIS GREENSPAN, THE MODERN LAW OF LAND WARFARE 337 (1959); Lauterpacht, *supra* note 196, at 368; Myres McDougal & Florentino Feliciano, *International Coercion and World Public Order: The General Principles of the Law of War*, 67 YALE L.J. 771, 832 (1958). Legal scholar William O'Brien attributed the lack of international law to nuclear war before 1960 to three broad possibilities: (1) legal regulation of nuclear war was impossible; (2) the fear of jeopardizing the defense of the free world against Communism; and (3) the belief that the law of war functions to prevent or mitigate suffering and reduce battlefield passions, but not to regulate hostilities. WILLIAM O'BRIEN, LEGITIMATE MILITARY NECESSITY IN NUCLEAR WAR, II WORLD POLITY Y.B. 35, 35-38 (1960).

[331] Erdmann, *supra* note 301, at 114.

> Destruction is not a good police force. You don't throw hand grenades around streets to police the streets so that people won't be molested by thugs.
>
> This is exactly the way that you have to look at nuclear war, or any other. Indeed, even in the bombing of the, you might say, relatively moderate type that we had in World War II, we destroyed cities, but not to compel anything except the enemy to allow our ground forces to move forward.
>
> And, I must say, to use that kind of a nuclear war as a general thing looks to me a self-defeating thing for all of us. After all, with that kind of release of nuclear explosions around this world, of the numbers of hundreds, I don't know what it would do to the world and particularly the Northern Hemisphere; and I don't think anybody else does. But I know it would be quite serious.[332]

If full scale nuclear war would end civilization, legal restraints on targeting—*lex specialis* or otherwise—would have no practical meaning. The primary objective national security goal needed to be deterrence; nuclear weapon employment planning and targeting supported that goal.[333]

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[332] The President's News Conference, Mar. 11, 1959, *reprinted in* PUBLIC PAPERS OF THE PRESIDENTS, DWIGHT D. EISENHOWER, http://www.presidency.ucsb.edu/ws/index.php ?pid=11678.

[333] National Security Council Report, NSC 5602/1, March 15, 1956, *reprinted in* FOREIGN RELATIONS OF THE UNITED STATES, 1955-57, National Security Policy, vol. XIX 246 (1990); KAPLAN, *supra* note 242, at 124–25. Bernard Brodie explained the rationale for nuclear deterrence theory in an international environment where legal constraints offer no protections. He argued for the ability to conduct retaliatory strikes against potential Soviet aggression by targeting their cities, explaining that in major wars the distinctions imposed by international law between "military" and "non-military" targets had disintegrated. Bernard Brodie, *War in the Atomic Age*, *in* THE ABSOLUTE WEAPON 36 (Bernard Brodie, ed. 1946). His influential conclusion summarizes the primacy of deterrence: "Thus far the chief purpose of our military establishment has been to win wars. From now on its chief purpose must be to avert them. It can have almost no other useful purpose." *Id.*, at 62. *See also* Bernard Brodie, *Anatomy of Deterrence*, RAND Corporation Research Memorandum, RM-2218, July 23, 1958, http://www.rand.org/content/dam/rand/pubs/ research_memoranda/2008/RM2218.pdf (arguing for the "super-dirty bomb" to make retribution as "horrendous as possible" and thereby improve the weapons deterrent effect.)

Against this backdrop of Armageddon, international law relating to nuclear weapon testing and deployment found a way to advance. From 1959 to 1972 the United States, Soviet Union and other nations agreed to some restrictions.[334] The first of these was the Antarctic Treaty, signed in 1959.[335] This multilateral treaty reserved Antarctica for peaceful purposes and prohibited military bases, fortifications, maneuvers and weapons testing in the area south of 60 degrees South Latitude.[336] It expressly prohibited nuclear explosions.[337] The second major treaty was the 1963 Limited Test Ban Treaty, which prohibited nuclear weapon testing or explosions in the atmosphere, outer space, or under water.[338] A third major treaty, the 1967 Outer Space Treaty, prohibited the placement of nuclear weapons in orbit, in outer space, or on any celestial bodies.[339] It also prohibited military bases, maneuvers and weapons testing on celestial bodies. The fourth of these treaties, the 1972 Seabed Arms Control Treaty, prohibited the emplacement of nuclear weapons, other weapons of mass destruction, or their support structures on the ocean floor at any point outside the 12-nautical-mile territorial seas of a nation.[340] These restrictions were possible because they did not create advantages for any of the Cold War adversaries, nor did they detract from deterrence by creating expectations that anyone would be spared the horrors of a nuclear war.

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334 Bunn, *supra* note 291, at 51; AIR FORCE OPERATIONS AND THE LAW 258–59 (2002).

335 The Antarctic Treaty, 12 U.S.T. 794 (Dec. 1, 1959).

336 *Id*. art. I.

337 *Id*. art. V.

338 Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water, 14 U.S.T. 1313 (Oct. 10, 1963). The original parties to the treaty were the United States, Soviet Union, and United Kingdom. Many other nations, with notable exceptions of China, France, and North Korea, subsequently acceded to the terms of the treaty. It paved the way for the Comprehensive Test Ban Treaty which has yet to be ratified by the United States.

339 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies, 18 U.S.T. 2410, art. IV (Jan. 27, 1967).

340 Treaty on the Prohibition of the Emplacement of Nuclear Weapons and Other Weapons of Mass Destruction on the Seabed and the Ocean Floor and in the Subsoil Thereof, Feb. 11, 1971, 23 U.S.T. 701.

V. Flexible Response and Assured Destruction: The Kennedy & Johnson Years

The *lex specialis* for U.S. nuclear targeting under the Kennedy and Johnson administrations began to emerge as target sets were both broadened and restricted. With a focus on deterrence, any pretense of limiting targets to military-supporting industry was abandoned. During this same era, the United States declared that law-of-war principles applied to nuclear weapon use generally, and specifically prohibited deliberate targeting of enemy populations. Furthermore, the United States entered into nonproliferation treaties restricting the use of nuclear weapons.

A. Historical and U.S. Policy Developments: Evolution of Strategy

The military strategic approach to the Soviets under the Kennedy Administration became conceptually dynamic. Kennedy disagreed with what he perceived as an over-reliance on nuclear weapons, which would deter military invasions, but not guerrilla campaigns, local insurrections, or political deterioration—techniques an adversary might calculate as sufficiently inoffensive as to avoid the risk of nuclear war.[341] Kennedy's new strategy was known as "Flexible Response" and was characterized as a menu of options varying from conventional, to select nuclear strikes, to total nuclear war.[342] It theoretically provided alternatives in the event of a conventional attack by the Soviets.[343] Despite the rhetorical shift in military strategy, though, the Kennedy administration was slow to make changes to SIOP-62, developed by the previous administration.[344]

The SIOP-63 plan, written in 1962 to take effect the following year, established multiple attack options against potential adversaries like the

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[341] Phillip Nash, *Bear* Any *Burden? John F. Kennedy and Nuclear Weapons*, *in* COLD WAR STATESMEN CONFRONT THE BOMB 122 (John Gaddis et al., eds., 1999).
[342] Bunn, *supra* note 291, at 59.
[343] FRANCIS GAVIN, NUCLEAR STATECRAFT 30 (2012). Gavin argues that the differences between the Kennedy and Eisenhower strategies were not as drastic as rhetoric may indicate. *Id.* at 53.
[344] *Id*. at 34; Rosenberg, *Nuclear War Planning*, *supra* note 243, at 176–77. Kennedy was briefed on SIOP-62 on September 13, 1961. Sagan, *SIOP-62: The Nuclear War Plan Briefing to President Kennedy*, *supra* note 323, at 22.

Soviet Union or the People's Republic of China.[345] The tiered plan first allowed for strike packages against the adversary's nuclear forces, then allowed the addition of other military targets, and then added urban-industrial targets.[346] The new plan also allowed withholding attacks against satellite countries or command and control centers in the capitals to keep open the possibility of negotiated settlements.[347] The plan even contained options to vary warhead sizes and heights of nuclear bursts.[348] Rather than presenting a range of options from conventional to nuclear, SIOP-63 appeared to offer different nuclear options.

Defense Secretary Robert McNamara was briefed on the RAND studies that recommended minimizing urban strikes and he endorsed a so-called "No-Cities" approach.[349] In February 1962, he explained his logic in a commencement speech at the University of Michigan:

> The [United States] has come to the conclusion that to the extent feasible, basic military strategy in a general nuclear war should be approached in much the same way that the more conventional military operations have been regarded in the past. That is to say, principal military objectives, in the event of a nuclear war stemming from a major attack on the Alliance, should be the destruction of the enemy's military force, not of his civilian population.[350]

After McNamara's speech, he was pressured to backtrack. The policy was publicly criticized: attacking adversary nuclear forces after they had been employed was seen as a wasted effort.[351] Worse, the approach would theoretically imply a strategy of preemptive U.S. strikes. Furthermore, President Kennedy refused to rule out a nuclear first strike if the Soviets

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345 History and Research Division Headquarters Strategic Air Command, "History of the Joint Strategic Targeting Planning Staff: Preparation of SIOP-63", January 1964, at 5 at 14, GEORGE WASH. U., http://nsarchive.gwu.edu/nukevault/ebb236/SIOP-63.pdf.
346 *Id*. at 14-16.
347 Rosenberg, *Nuclear War Planning*, *supra* note 243, at 177.
348 *Id.* at 63.
349 Ball, *The Development of the SIOP, 1960–1983*, *supra* note 319, at 62. The briefing was presented with data compiled by RAND analysts. FRED KAPLAN, THE WIZARDS OF ARMAGEDDON, 260-62 (1983).
350 Richelson, *supra* note 251, at 240.
351 Ball, *The Development of the SIOP, 1960–1983*, *supra* note 319, at 67.

threatened vital U.S. interests.[352] The Soviets also refused to entertain notions of restraint or limiting escalation, as their avowed strategy was to strike military targets, governmental and administrative centers, and cities immediately upon the outbreak of hostilities.[353] U.S. allies in Europe believed the new strategy undermined deterrence and created a possibility that Europe would be decimated by nuclear strikes while the homelands of the principals would be left intact.[354] Finally, McNamara's strategy required expensive procurement of additional capabilities.[355] Interestingly, the push-back against McNamara's strategy of what seemed to be greater humanitarian considerations was based on practical realities.

As McNamara's strategy was being challenged, President Kennedy was briefed on contingency plans.[356] He asked if the United States could preemptively attack the Soviet Union in a manner to prevent unacceptable losses.[357] The answer was no: significant Soviet nuclear capabilities would survive any first strike.[358] This generated studies to confirm the ineffectiveness of potential first strikes.[359]

The realization that preemptive strikes would be ineffective caused McNamara to rethink nuclear war plans, focusing on the concept of "Assured Destruction,"[360] eventually referred to publically as "Mutually Assured Destruction."[361] McNamara never abandoned "Flexible Response" in military planning, but the public face of war strategy emphasized the new "Assured Destruction" concept.[362] It basically assumed massive retaliation by each side in response to a nuclear attack.[363] If nuclear war broke out, the United States would inflict what McNamara

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[352] *Id.*
[353] *Id*.
[354] *Id.* at 67–68.
[355] *Id*. at 68. The U.S. nuclear arsenal reached its highest historical level of 31,255 weapons in 1967. Frank Rose, *Comments to the 2015 United National General Assembly First Committee*, U.S. DEP'T OF STATE (Oct. 12, 2015), https://www.state.gov/t/avc/rls/2015/248112.htm.
[356] Rosenberg, *Nuclear War Planning*, *supra* note 243, at 180.
[357] *Id*.
[358] *Id*. The ineffectiveness of preemption existed under SIOP-62, and Kennedy was so informed in 1961. Sagan, *SIOP-62: The Nuclear War Plan Briefing to President Kennedy*, *supra* note 323, at 30.
[359] Rosenberg, *Nuclear War Planning*, *supra* note 243, at 180.
[360] *Id*.
[361] Bunn, *supra* note 291, at 59.
[362] Ball, *The Development of the SIOP, 1960–1983*, *supra* note 319, at 70.
[363] *Id*.

considered "intolerable punishment" on the Soviets by destroying one-half to two-thirds of their industrial capacity and one-quarter to one-third of their population.[364] Industrial capacity was not limited to that in direct support of the military. According to Professor Desmond Ball, "it did not matter whether the industrial capacity destroyed consisted of machine goods or rolling stock, tank factories or garment factories, bakeries or toy factories."[365] If "Assured Destruction" really did not distinguish military supporting industry from general industry, then the law of war seemed to have no bearing on nuclear targeting policy and created justifiable skepticism about international law's ability to regulate nuclear war.[366] Rather than relying on promises of legal protections for national survival, which historically offered little insurance against aggression, U.S. policy continued to rely upon preventing nuclear war through realistic promises of Armageddon.[367] One senior defense department attorney later justified

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[364] Ball, *Toward a Critique of Strategic Nuclear Targeting*, *supra* note 245, at 25; Richelson, *supra* note 256, at 240. As a matter of law, the doctrine of belligerent reprisal allows proportional responses to attacks on illegal targets in order to ensure future compliance with the law. *See* 1956 FM 27-10, *supra* note 291, ¶ 497. The doctrine does not contemplate "punishment" as a permissible rationale. The question of the legality of population attacks, however, was receiving new attention at this point in the nuclear age.

[365] Ball, *Toward a Critique of Strategic Nuclear Targeting*, *supra* note 245, at 26.

[366] Richard Falk expressed the skepticism. Richard Falk, *The Shimoda Case: A Legal Appraisal of the Atomic Attacks Upon Hiroshima and Nagasaki*, 59 AM. J. INT'L L. 793 (1965). The duty to distinguish war making industries from general industry was articulated by some legal experts. *See, e.g.*, GREENSPAN, *supra* note 330, at 334-35 (explaining legitimate targets included factories producing finished war products and also those that supply the materials, such as steel); 1956 FM 27-10, *supra* note 296, ¶ 40 ("Factories producing munitions and military supplies . . . may also be attacked and bombarded"), but it was not a universally held norm. *See, e.g.*, OPPENHEIM, *supra* note 329, at 207 (legitimate targets for bombardment include "centres of industry"); DeSaussure, *supra* note 330, at 32 ("*military objective* has been redefined to include the industrial and economic potential of a country." (emphasis in original)).

[367] McNamara later explained his position:

> I do not believe we can avoid serious and unacceptable risk of nuclear war until we recognize—and until we base all our military plans, defense budgets, weapon deployments, and arms negotiations on the recognition—that nuclear weapons serve no military purpose whatsoever. They are totally useless—except only to deter one's opponent from using them.

Robert McNamara, *The Military Role of Nuclear Weapons: Perceptions and Misperceptions*, 62 FOREIGN AFFAIRS 59-80 (1983). In 2000, McNamara said, "I have for years believe that the use of nuclear weapons on any basis would be immoral and unlawful in the broad sense in which I as a non-lawyer conceive of the matter." Robert McNamara,

this construct by explaining that the legality of nuclear weapons was understood in the context of deterrence: behavioral restraints on international conduct was governed by perceptions of the utility of a course of action; since treaties and other norms could be readily breached or circumvented, nuclear deterrence necessarily needed to inspire fear.[368] Planning for widespread use of nuclear weapons against adversarial industry without distinction between military and civilian entities certainly would inspire terror.

B. Legal Developments: Law of War Declarations and Nonproliferation Treaties

Even though "Assured Destruction" seemed to leave no room for the law of war, this era did see significant efforts made to address humanitarian concerns over possible nuclear war. In 1965, the XXth International Conference of the Red Cross (ICRC Conference) met in Austria with eighty-four nations in attendance. One product of the ICRC Conference was a pronouncement on the laws of war:[369]

> - that the right of the parties to a conflict to adopt means of injuring the enemy is not unlimited;
> - that it is prohibited to launch attacks against the civilian populations as such;
> - that distinction must be made at all times between persons taking part in the hostilities and members of the civilian population to the effect that the latter be spared as much as possible;
> - that the general principles of the Law of War apply to nuclear and similar weapons[.][370]

Forward, in MOXLEY, *supra* note 22, at xv. The record is unclear as to when McNamara came to this understanding.

[368] Harry Almond, Jr., *Deterrence and a Policy-Oriented Perspective on the Legality of Nuclear Weapons*, *in* NUCLEAR WEAPONS AND LAW 57, 63-64 (Arthur Selwyn Miller and Martin Feinrider, eds. 1984). Almond wrote in his personal capacity.

[369] *XXth International Conference of the Red Cross*, 1965 INT'L REV. RED CROSS, 567, 568.

[370] *Id*. at 26.

This pronouncement became the subject of United Nations General Assembly Resolution 2444 (XXIII) in 1968.[371] The U.N. General Assembly resolution was unanimously adopted, but without expressly rearticulating the fourth bullet of the ICRC Conference pronouncement on the general law-of-war principles applying to nuclear war.[372] During the debate for the resolution, the U.S. representative to the United Nations stated:

> The . . . principles set out in that [ICRC Conference] resolution constitute a reaffirmation of existing international law. These principles, though drafted in general terms, clearly state that:
>
> (1) There is a limit to the permissible means of injuring the enemy, a limit which is inevitably affected by the actions of all parties to the conflict.
> (2) Civilian populations may not be attacked as such, but we recognize that the co-location of military targets and civilians may make unavoidable, certain injury to civilians. Moreover, we should recognize soberly, that none of these principles offers any significant protection to civilians in the catastrophic event of nuclear war.
> (3) There are indeed principles of law relative to the use of weapons; and these principles apply as well to the use of nuclear and similar weapons. The United States believes the above principles are statements of existing international law on this subject.[373]

United States nuclear employment directives would thereafter prohibit targeting populations *per se*. As will be evident, however, this had little actual effect on employment planning.

A few other legal developments during the Kennedy-Johnson years have implications for nuclear weapon employment and should be addressed. First, after the Cuban Missile Crisis, a treaty was established

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[371] BOTHE ET AL, *supra* note 225, at 220.
[372] G.A. Res. 2444 (XXIII), at 50 (Dec. 19, 1968); BOTHE ET AL., *supra* note 225, at 316; Parks, *Air War and the Law of War*, *supra* note 56, at 69.
[373] BOTHE ET AL., *supra* note 225, at 220; Bunn, *supra* note 296, at 58.

to limit the deployment and use of nuclear weapons.[374] This was the Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean, known as the Treaty of Tlatelolco.[375] It established Mexico, Central America, South America and the Caribbean as a nuclear weapons free zone (NWFZ). State parties to the treaty agreed not to possess, test, use or threaten to use, manufacture, produce, or acquire nuclear weapons. The United States was not eligible to be a party to the treaty, but ratified two additional protocols with statements of understanding.[376] As a result, the United States is precluded from stationing of nuclear weapons within the NWFZ and from using, or threatening to use, nuclear weapons against a state party unless that party would be assisted in an armed attack by a nuclear weapon state.

Another development produced one of the most critical treaties of this period: the promulgation of the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) of 1968, in which countries without nuclear weapons agreed not to "manufacture or otherwise acquire" them, or receive direct or indirect control over them.[377] The nuclear weapon possessing state parties to the treaty agreed not to transfer nuclear weapons or control thereof to any country, terrorist group or other recipient. In return, the non-nuclear weapon states received peaceful nuclear technology and agreed to accept safeguards and inspections from the International Atomic Energy Agency. The treaty could be extended after twenty-five years. Despite apparent progress through international treaties, McNamara's "Assured Destruction" strategic approach dominated the nuclear legacy of the Kennedy-Johnson years.

These two new legal restrictions were possible because they, like others before them, did not put rules on paper to create false expectations of protection from the effects of nuclear war between adversaries, nor did they give any parties an advantage. While these arms control treaties represented some humanitarian progress, McNamara's "Assured Destruction" continued to define the nuclear legacy of the Kennedy-Johnson years.

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[374] Bunn, *supra* note 291, at 51.

[375] Treaty for the Prohibition of Nuclear Weapons in Latin America (Tlatelolco Treaty), U.N. Doc. A/6663 (Feb. 14, 1967).

[376] Additional Protocol I to the Treaty for the Prohibition of Nuclear Weapons in Latin America, Feb. 14, 1967, 33 U.S.T. 1792; Additional Protocol II to the Treaty for the Prohibition of Nuclear Weapons in Latin America, Feb. 14, 1967, 22 U.S.T. 754.

[377] Treaty on the Non-Proliferation of Nuclear Weapons, Jul. 1, 1968, 21 U.S.T. 483.

VI. Controlling Escalation: The Nixon and Ford Years

The law applicable to nuclear weapon employment did not significantly change during the Nixon and Ford administrations, but this era did see more attention paid to potential discriminant use of nuclear weapons to prevent conflicts from escalating to a full nuclear exchange. The United States maintained its position that the Second World War legal regime for targeting remained intact. During this period the United States also committed to refrain from intentionally changing the environment as a means of war.

A. Historical and U.S. Policy Developments: New Technologies and Strategies

President Nixon's National Security Advisor, Henry Kissinger, rejected "Assured Destruction." Kissinger was concerned that the Soviets might launch limited nuclear strikes, contrary to their public statements, and began a review of the U.S. military posture and strategic needs immediately after taking office.[378] Motivated more by strategic pragmatism than the law of war, President Nixon told Congress in 1971, "I must not be—and my successors must not be—limited to the indiscriminate mass destruction of civilians as the sole possible response to challenges."[379] In mid-1972, Nixon directed Kissinger to head a team

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[378] Ball, *The Development of the SIOP, 1960–1983*, *supra* note 319, at 70.

[379] *Id.*, at 72. As careful as Nixon professed to be regarding all-out war with the Soviets, at times he was willing to contemplate using nuclear weapons. As Eisenhower's Vice President, he recalled how the suggestion of nuclear weapons helped conclude the Korean War armistice and discussed using the same tactic to conclude the Vietnam War. Conversations between Nixon and Kissinger, April 23, 1971, and April 19, 1972, *reprinted in* DOUGLAS BRINKLEY & LUKE NICTER, THE NIXON TAPES 96–97, 495 (2014); Nina Tannenwald, *Nuclear Weapons and the Vietnam War*, 29 J. STRATEGIC STUD. 708 (2006). On April 25, Nixon and Kissinger discussed escalation options for Operation Linebacker, the pending U.S. air campaign against North Vietnam:

> Nixon: See, the attack in the North [Vietnam] that we have in mind . . . power plants, whatever's left—POL [petroleum, oil and lubricants], the docks . . . . And, I still think we ought to take the dykes out now. Will that drown people?
>
> Kissinger: About two hundred thousand people.
>
> Nixon: No, no, no . . . I'd rather use the nuclear bomb. Have you got

to develop additional strategic nuclear war options, including selective attack options.[380]

Meanwhile, the understanding of secondary effects of nuclear weapons had been increasing. At the time of Hiroshima and Nagasaki, military planners understood that an atomic explosion would generate blast, heat, and gamma radiation. By the mid-1960s, with increased warhead size, new aspects of detonations needed to be accounted for: electromagnetic pulse, atmospheric ionization, as well as radioactive dust and fallout.[381] Not only would these effects affect attack plans, they meant that even if attacks were limited to military forces, collateral civilian casualties would be unavoidable.[382] Technological advances permitting more accurate targeting of military objectives partially mitigated these concerns in the early 1970s.[383]

James Schlesinger, another skeptic of "Assured Destruction," became Secretary of Defense in 1973 and continued in the office into the Ford Administration.[384] Schlesinger took advantage of the selective attack options and new technology to articulate a new strategy with a wide range of nuclear options from very small to very large, focusing smaller strike options on counter-force rather than counter-city targets.[385] The emphasis was on controlling escalation by hitting "meaningful targets with a sufficient accuracy-yield combination to destroy only the intended target and to avoid widespread collateral damage."[386]

> that, Henry?
>
> Kissinger: That, I think, would just be too much.
>
> Nixon: The nuclear bomb, does that bother you? . . . I just want you to think big, Henry, for Christsakes.

DANIEL ELLSBERG, SECRETS 418 (2002); Tannenwald, *supra*, at 716 (quoting White House Tapes, 25 April 1972, Executive Office Building, Tape 332–25). Despite the crass language at the time, Nixon later said he ultimately decided against using the nuclear bomb and against taking out dykes because they were not military targets. Tannenwald, *supra*, at 709.

380 Ball, *The Development of the SIOP, 1960–1983*, *supra* note 319, at 70.

381 Rosenberg, *Nuclear War Planning*, *supra* note 243, at 179.

382 *Id*.

383 Bunn, *supra* note 291, at 58-59.

384 FREEDMAN, *supra* note 134, at 361.

385 *Id*. at 361-62.

386 *Id*. at 361.

The targeting strategy of the Ford administration, developed during the Nixon years, added emphasis on destroying the Soviet's economic objects.[387] The new policy emphasized that the "fundamental mission of U.S. nuclear forces is to deter nuclear war[.]"[388] Nuclear weapon employment planning supported deterrence. If deterrence failed, the conflict needed to be terminated at the lowest level feasible.[389] Escalation would be controlled with options that "(a) hold some vital enemy targets hostage to subsequent destruction by survivable nuclear forces, and (b) permit control over the timing and pace of attack execution, in order to provide the enemy opportunities to reconsider his actions."[390] If escalation could not be controlled, then the United States would destroy "the political, economic and military resource[s] critical to the enemy's post-war power, influence and ability to recover at an early time as a major power."[391] Implementing guidance provided:

> Every reasonable effort will be made to limit attacks in the vicinity of densely populated areas. Further, damage to non-military targets and friendly military forces will be minimized through selection of the lowest weapon yields necessary, delivery vehicles with suitable accuracies, and alternative targets to accomplish the desired objective.[392]

Despite the guidance, the resulting military war plan called for destruction of 70% of the Soviet economic and industrial base.[393] This economic recovery strategy apparently included targeting Soviet fertilizer factories in order to affect post-war food production—an indirect attack on the adversary's population.[394]

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[387] Ball, *Toward a Critique of Strategic Nuclear Targeting*, *supra* note 245, at 26.
[388] *National Security Decision Memorandum 242*, 1, NIXON LIBRARY (Jan. 17, 1974), http://www.nixonlibrary.gov/virtuallibrary/documents/nsdm/nsdm_242.pdf.
[389] *Id*. at 2.
[390] *Id*.
[391] *Id*.
[392] Nuclear Weapon Employment Policy, 7, April 10, 1974, http://nsarchive.gwu.edu/NSAEBB/NSAEBB173/SIOP-25.pdf
[393] *Id*. at A-7; Ball, *The Development of the SIOP, 1960–1983*, *supra* note 319, at 74.
[394] SCOTT SAGAN, MOVING TARGETS 46 (1989).

B. Legal Developments: The Environmental Modification Convention

At this stage in history, the United States complied with its understanding of law-of-war obligations, but the rules appeared to have minimal impact on nuclear targeting considerations.[395] In 1973 the Office of the Legal Advisor to the State Department validated the legitimacy of attacking enemy industrial centers based upon customary international law as indicated by the language of the 1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict.[396] The legal standard for such attacks would be whether "the war making potential of such facilities to a party to the conflict may outweigh their importance to the civilian economy and deny them immunity from attack."[397] Furthermore, the U.S. legal position was:

> The existing laws of armed conflict do not prohibit the use of weapons whose destructive force cannot be limited to a specific military objective. The use of such weapons is not proscribed when their use is necessarily required against a military target of sufficient importance to outweigh inevitable, but regrettable, incidental casualties to civilians and destruction of civilian objects.[398]

This position captured the interplay between the law-of-war principles of military necessity, discrimination, and proportionality. The law appeared to maintain its Second World War incarnation with broad notions of

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[395] Air Force Colonel Jay Terry, the Director of International Law for the U.S. Air Force in Europe (writing in his personal capacity), surveyed the existing law applicable to aerial warfare and added, "nuclear weapon employment is now subject only to social and political controls rather than legal." Jay Terry, *The Evolving Law of Aerial Warfare*, AIR U. REV. (1975), http://www.airpower.maxwell.af.mil/airchronicles/aureview/1975/nov-dec/terry.html.

[396] The State Department Legal Advisor explained that article 8 of the 1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict, defined entities legally subject to armed attack as "any large industrial center or . . . any important military objective constituting a vulnerable point, such as, for example, an aerodrome, broadcasting station, establishment engaged upon work of national defense, a port or railway station of relative importance or a main line of communication." Arthur Rovine, *Contemporary Practice of the United States Relating to International Law*, 67 AM. J. INT'L L. 118, 123 (1973).

[397] *Id*. at 123-24.

[398] *Id*. at 124.

military objectives and toleration for civilian casualties.[399] No restrictions, apart from vague proportionality considerations, were placed on the potential annihilation of an adversary's economic and industrial areas. The inability of United States to restrain itself through legal mechanisms was likely due to the recognition that the Soviets would not reciprocate.[400] The legal construct for economic targeting would not be revisited until decades later.[401]

The law, however, did not stagnate during this period. One of the legal legacies of the Nixon-Ford years was the effort to develop a treaty to prevent weather modification as a means of war. The treaty was finalized in the 1977 Convention of the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (ENMOD Convention), which prohibited the "deliberate manipulation" of environmental forces *as the means* of causing injury or destruction to an adversary.[402] As a practical matter, it prohibited the use of nuclear weapons, or any other weapons, to hurt an enemy by purposely causing earthquakes, tsunamis, or changes in weather patterns that would be expected to last for months.[403] The United States and other nuclear weapons states were willing to prohibit such intentional changes of the environment as a means of war, but they refused to prohibit broader use of weapons that would be expected

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[399] The U.S. Air Force Judge Advocate General's reportedly told the service's Director of Plans that legitimate military objectives remained unchanged since 1945, they remained, "includes the entire military, economic and industrial strength of the enemy." Hamilton DeSaussure & Robert Glasser, *Methods and Means of Warfare: Air Warfare—Christmas 1972*, *in* LAW AND RESPONSIBILITY IN WARFARE: THE VIETNAM EXPERIENCE 127 (Peter Trooboff & Arthur Goldberg, eds. 1975) (quoting "Law of War Regulating Aerial Bombardment," Memorandum for Director of Plans, Deputy Chief of Staff Plans and Operations, United States Air Force (unpublished memorandum, Apr. 28, 1971)).

[400] The Soviets showed no interest in restraints on potential nuclear weapon use despite the spokesmen for Western governments emphasizing the need to limit collateral damage. Herbert York, *The Nuclear 'Balance of Terror' in Europe*, BULLETIN OF ATOMIC SCIENTISTS (May 1976) at 10.

[401] *See infra*, Section XI.B

[402] Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (hereinafter "The ENMOD Convention"), May 18, 1977, 31 U.S.T. 333.

[403] The ENMOD Convention, Understandings Regarding the Convention, Understanding Relating to Article II, http://www.state.gov/t/isn/4783.htm#understandings; Written Statement of the Government of the United States of America before the International Court of Justice, (Request by the World Health Organization for an Advisory Opinion on the Question of the Legality Under International Law and the World Health Organization Constitution of the Use of Nuclear Weapons by a State in War or Other Armed Conflict), at 30 (June 10, 1994), http://www.icj-cij.org/docket/files/93/10947.pdf).

to cause widespread and severe environmental damage as a side effect of a weapon's intended purpose.[404] The 1977 ENMOD convention, like other treaties before it, provided no advantage to either side of the Cold War standoff and did not promise significant protections should conflict arise.

VII. Minimum Deterrence Upended: The Carter Years

The nuclear targeting strategy under President James E. "Jimmy" Carter returned to distinguishing between general industry and war-supporting industry. While military related industry was to be attacked early in a conflict, general industry was reserved for retaliatory strikes to prevent economic recovery. The Carter administration fully recognized that rules prohibited population targeting *per se*, but still allowed economic recovery targeting—a legal construct that undermined theoretical civilian protections.

President Carter initially intended to emphasize minimum deterrence, but was stopped by intelligence reports of an unprecedented Soviet military buildup.[405] An assessment of Soviet doctrine informed him that they considered victory in nuclear war possible.[406] This forced the President to determine the best way to deny Soviet Union objectives should war break out.

Thus, President Carter directed a Nuclear Targeting Policy Review (NTPR) be conducted in 1977.[407] Defense Secretary Harold Brown forwarded the review to President Carter. Brown explained that while the Soviet population had not been targeted in recent years, the United States should conduct high-level discussions on whether populations should be targeted since the Soviets continued to develop plans to shelter and

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[404] *See e.g.*, Michael J. Matheson, *Remarks in Session One: The United States Position on the Relation of Customary International Law to the 1977 Protocols Additional to the 1949 Geneva Convention*, 2 AM. U. J. INT'L L. & POL'Y 419, 424 (1987); Letter dated 16 June 1995 from the Legal Adviser to the Foreign and Commonwealth Office of the United Kingdom of Great Britain and Northern Ireland, together with Written Comments of the United Kingdom 56 (Request by the World Health Organization for an Advisory Opinion on the Question of the Legality Under International Law of the Use of Nuclear Weapons by a State in War or Other Armed Conflict).

[405] Rosenberg, *Nuclear War Planning*, *supra* note 243, at 184.

[406] *Id*. at 185.

[407] Ball, *Toward a Critique of Strategic Nuclear Targeting*, *supra* note 245, at 16.

evacuate civilian populations.[408] The NTPR stated that the United States should "continue current policy with respect to the targeting of population, in which population, as such, is not an objective target."[409] It explained,

> We find no reason to believe that targeting population *per se*, would be a more effective deterrent or a more useful objective in general war than targeting the specific economic objectives suggested above along with the control apparatus and military power which the Soviets appear to consider of high value. Furthermore, targeting population would require substantial additional allocation of weapons if we assume that the Soviet civil defense is implemented and effective, and therefore would divert weapons from other objectives. However, estimates of population fatalities will continue to be an important criterion for any decision maker contemplating the use of nuclear weapons. Our data and methodology for making such estimates should continue to be improved. We should also keep under continuous examination the feasibility and the implications for other targeting objectives of adjusting our targeting so as to be able to attack some defined portion of Soviet population even if it is evacuated and/or sheltered. Whether we should have a specific target set for use in such a case remains an unresolved issue.[410]

The NTPR called for maintaining the targeting of populations and general industry supporting long-term recovery as "an assured destruction capability (to be withheld so long as the Soviets spared U.S. cities and industries)[.]"[411] Neither Brown's letter, nor the NTPR specifically mentioned legal concerns with targeting civilian populations. They implied the application of the doctrine of belligerent reprisal. They also highlighted the uncomfortable truth of the dark side to Second World War

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[408] Harold Brown, *Nuclear Targeting Policy Review, Memorandum for the President, Nov. 28, 1978*, NAT'L ARCHIVES 4, (2011), https://www.archives.gov/files/declassification/iscap/pdf/2011-064-doc39.pdf

[409] Nuclear Targeting Policy Review, *Summary of Major Findings and Recommendations*, NAT'L ARCHIVES xiii (Nov. 1, 1978), https://www.archives.gov/files/declassification/iscap/pdf/2011-064-doc39.pdf [hereinafter Nuclear Targeting Policy Review Summary].

[410] *Id*. at xiii-xiv.

[411] *Id.* at ix.

strategic bombing approaches: Targeting the adversary's economy meant targeting the adversary's cities. Walter Slocombe, a senior Carter administration DoD official, confirmed as much when he explained that the cumbersome Soviet economy had relatively few facilities that would be considered critical, thus, "Massive attacks on industrial production, transportation, and material resource targets" were needed to destroy the Soviet economy; these "would not be distinguishable from attacks on the population as such."[412]

NTPR also called for recommendations on "more effective targeting of Soviet military and war-sustaining capacity[.]"[413] The report emphasized that submarine launched nuclear weapons, while having the capacity to survive a Soviet attack, were less effective against hardened Soviet facilities than intercontinental ballistic missiles, which were more vulnerable to attack.[414] Thus, the report recognized the need for greater "hard target capabilities"—which were projected to be ready in the form of air launched cruise missiles in the 1980s.[415] The NTPR also called for improvements in selecting Soviet targets to effectively attack Soviet military capabilities—noting that attacks on conventional force home bases during a conflict may simply mean destroying empty facilities.[416]

The NTPR resulted in Presidential Directive 59 (PD-59), Nuclear Weapons Employment Policy, which Carter signed in July 1980.[417] The new "countervailing" strategy has been generally viewed as a refinement of the escalation control efforts emphasized by Schlesinger, rather than being driven by legal concerns.[418] Under PD-59, deterrence of nuclear and non-nuclear attacks remained the most fundamental policy objective.[419] Deterrence would require the Soviets to realize that their aggression would not result in "any plausible definition of victory."[420] It did so by prioritizing targets based on those objects and people most valued by the

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412 Walter Slocombe, *Preplanned Operations*, *in* MANAGING NUCLEAR OPERATIONS 129 (Ashton Carter et al. eds., 1987).
413 Brown, *supra* note 408, at 2.
414 Nuclear Targeting Policy Review Summary, *supra* note 409, at v.
415 *Id*. at vi.
416 *Id*.
417 Ball, *Toward a Critique of Strategic Nuclear Targeting*, *supra* note 245, at 17.
418 FREEDMAN, *supra* note 134, at 375; Ball, *The Development of the SIOP, 1960–1983*, *supra* note 319, at 82.
419 Presidential Directive 59 (PD-59), 1, July 25, 1980, https://www.jimmyCarterlibrary.gov/documents/pddirectives/pd59.pdf
420 *Id*. Walter Slocombe, *Countervailing Strategy*, 5 INT'L SECURITY 4, 18, 21 (1981)

Soviets: their leadership and military forces, especially command and control capabilities.[421] This nuclear strategy de-emphasized, but retained, Soviet industrial targets. The new countervailing strategy called for:

> [S]equential selection of attacks from among a full range of military targets, industrial targets providing immediate military support, and political control targets, while retaining a survivable and enduring capability that is sufficient to attack a broader set of urban and industrial targets.[422]

Presidential Directive 59 distinguished "industrial facilities which provide immediate support to military operations" from a separate category of "general industrial capacity."[423] Furthermore, the directive was to "limit collateral damage to urban areas, general industry and population targets outside these categories, consistent with effectively covering the objective target . . . ."[424] General industry appeared to receive a more protected status as a civilian object, departing from its treatment since the Kennedy-Johnson years as indistinguishable from military supporting industry.

The Department of Defense provided an example list of targets to the Senate Armed Services Committee in March 1980. The list is informative:

> *War-supporting industry*
> Ammunition factories.
> Tank and armored personnel carrier factories.
> Petroleum refineries.
> Railway yards and repair facilities.
>
> *Industry contributing to economic recovery*
> Coal.
> Basic steel.
> Basic aluminum.
> Cement.
> Electric power.

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421 SAGAN, MOVING TARGETS, *supra* note 394, at 49-52.

422 PD-59, *supra* note 419 at 2; Freedman characterizes the Carter administration's nuclear strategy as a refinement of the strategy initially developed by Schelsinger. FREEDMAN, *supra* note 134, at 375.

423 PD-59, *supra* note 419, at 3.

424 *Id*. at 3–4.

> *Conventional military forces*
> Kasernes [Barracks].
> Supply depots.
> Marshaling points.
> Conventional air fields.
> Ammunition storage facilities.
> Tank and vehicle storage yards.
>
> *Nuclear forces*
> ICBMs/IRBMs, [intercontinental ballistic missiles and intermediate-range ballistic missiles, together with their launch facilities and launch command centers].
> Nuclear weapon storage sites.
> Long range aviation bases (nuclear capable aircraft).
> SSBN [nuclear ballistic missile submarine] bases.
>
> *Command and control*
> Command posts.
> Key communications facilities.[425]

Arguments could easily be made for the samples of "Industry contributing to economic recovery" to be reclassified as "War-supporting industry." The connections, however, would be more indirect. For example, military-industrial plants would need heat and power from coal and electricity. Military equipment was made from steel, structures from concrete. During the Second World War, steel plants were a priority military-industrial target. The distinction in the category examples does not appear to have been "war-supporting" versus "economic recovery" industry, but the industries' direct or indirect relation to military end products.

PD-59 specifically refrained from population targeting. While it permitted the continued targeting of all industrial facilities, it distinguished military supporting industries from general industries. Examples of economic recovery objectives, cited as targetable, also appeared to be critical to direct military support. Despite this "progress" in humanitarian and law-of-war targeting categories, all 200 of the largest Soviet cities and

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[425] Senate Armed Services Committee, *Department of Defense Authorization for Appropriations for Fiscal Year 1981*, BABEL 2721(1980), https://babel.hathitrust.org/cgi/pt?id=umn.31951p00475313z;view=1up;seq=63

80% of cities with populations over twenty-five thousand contained targets for potential nuclear strikes in 1980.[426]

VIII. The End of the Cold War: The Reagan and Bush 41 Years

Nuclear weapon employment law and strategy did not change significantly during the Reagan and Bush administrations, although arms control breakthroughs allowed significant reductions in nuclear arsenals. The end of the Cold War allowed the United States to eliminate certain targets altogether.

Ronald Reagan fully understood the law-of-war issue with nuclear weapons in moral terms. He stated, "By the time the 1980s rolled around, we were placing our entire faith in a weapon whose *fundamental target was the civilian population*."[427] Despite concerns, the Reagan administration affirmed President Carter's PD-59 targeting policy in 1981 with National Security Decision Directive 13, with one significant change.[428] Deterrence remained fundamental, but if deterrence failed then the policy was for the United States and its allies to prevail in a nuclear war.[429] Other Carter-era nuclear employment guidance was maintained. For example, the guidance to "limit collateral damage consistent with effective accomplishment of the attack objective" remained.[430] Targeting also stayed focused on strategic nuclear systems, conventional forces, military-political centers and communications, as well as the 200 largest Soviet urban-industrial centers.[431] The military under the Reagan administration also improved planning for small nuclear options to increase the chances of the Soviets perceiving them to be limited.[432]

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426 Ball, *Toward a Critique of Strategic Nuclear Targeting*, *supra* note 245, at 27.

427 RONALD REAGAN, AN AMERICAN LIFE 549 (1990).

428 *Id*. at 17.

429 National Security Decision Directive 13, *Nuclear Weapons Employment Policy*. REAGAN LIBRARY 1, https://reaganlibrary.archives.gov/archives/reference/Scanned%20SDDs/NSDD13.pdf [hereinafter NSDD-13].

430 *Id*. at 2.

431 Publicly available sources indicate that PD-59 and NSDD-13 used the same basic targeting categories. *See, e.g.*, Rosenberg, *Nuclear War Planning*, *supra* note 243, at 187; Bunn, *supra* note 291, at 59; Ball, *The Development of the SIOP, 1960–1983*, *supra* note 319, at 79-82.

432 Elbridge Colby, *The United States and Discriminate Nuclear Options in the Cold War*, *in* ON LIMITED NUCLEAR WAR IN THE 21ST CENTURY, 64–65 (Jeffrey Larsen & Kerry Kartchner, eds., 2014). Although Schlesinger called for the development of limited strike

President Reagan did not overhaul the nuclear target list, but changed the United States approach to potential conflicts to convince the Soviets that the United States intended to prevail in conflict should one arise.[433] First, the Reagan administration focused on deploying new cruise and ballistic missiles, introducing new classes of missiles into the European theater, resuscitating the B-1 bomber cancelled by the previous administration, developing the B-2 stealth bomber, and pursuing strategic defense.[434] While Reagan wanted to eventually rid the world of nuclear weapons, his intermediate goal was to create sufficient defenses so as to change Assured Destruction to Assured Survival.[435] Moreover, Reagan thought he would only be able to achieve his goals by negotiating with the Soviets from a position of military strength.[436] Reagan and his successor, President George H.W. Bush, pursued a robust arms control agenda which resulted in a series of arms treaties with the Soviets. At the close of Reagan's first summit meeting with Soviet leader Mikhail Gorbachev, they issued a mutual statement announcing that they had "agreed that a nuclear war cannot be won and must never be fought."[437]

Planning for war contingencies continued against the backdrop of arms control. President Bush's Secretary of Defense Richard "Dick" Cheney explained that arms control was made possible by rationalizing nuclear targeting.[438] Cheney ended "encrusted bureaucratic thinking" which planned on striking cities like Kiev with "literally dozens of warheads."[439] These plans were based on guaranteeing target destruction and hedging against failures of different weapon types and delivery

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options during his tenure as Secretary of Defense, the Office of the Secretary of Defense under Secretary Casper Weinberger determined that the military's previous plans would not be perceived as limited. *Id.*

433 After leaving office, Reagan wrote about "the people at the Pentagon" who thought a nuclear war might be winnable: "I thought they were crazy. Worse, it appeared there were also Soviet generals who thought in terms of winning a nuclear war." REAGAN, *supra* note 432, at 586.

434 Colby, *supra* note 432, at 63.

435 REAGAN, *supra* note 427, at 550.

436 *Id.* at 548-49.

437 *Joint Soviet-United States Statement on the Summit Meeting in Geneva*, REAGAN LIBRARY (Nov. 21, 1985), https://reaganlibrary.archives.gov/archives/speeches/1985/112185a.htm

438 DICK CHENEY, IN MY TIME 233 (2011).

439 *Id.* Cheney attributed the phrase "encrusted bureaucratic thinking" to then Chairman of the Joint Chiefs Colin Powell. *Id.*

systems.[440] The "encrusted bureaucratic thinking" may have been a significant factor hindering law-of-war concerns from entering into nuclear targeting considerations during the Cold War. The October 1989 nuclear war plan revision, SIOP-6F, emphasized targeting Soviet leadership and means of political and military control.[441]

The Cold War ended with the peaceful fall of the Berlin Wall in November 1989, and the collapse of the Soviet Union on Christmas Day 1991. The United States removed nuclear targets in Eastern Europe and former Soviet states from war plans.[442] With the specter of total nuclear Armageddon seemingly gone, concerns over rogue states and terrorism rose.

IX. New Rules: The 1977 Additional Protocols

While the *lex specialis* for nuclear weapons did not necessarily change during the last two decades of the Cold War, law-of-war rules for conventional weapons certainly did receive a long awaited update in the form of the 1977 Additional Protocols to the Geneva Conventions.[443] Although signed by the United States during the Carter administration, the full analysis and impact of the protocols took roughly a decade and the United States ultimately rejected Additional Protocol I (AP I). Meanwhile, the United States recognized that some of the provisions of the Additional Protocols are articulations of pre-existing customary international law—applicable to conventional and nuclear weapons. Thus, the law applicable to nuclear weapon employment must be viewed in light of this unique context.

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[440] Theodore Postal, *Targeting*, *in* MANAGING NUCLEAR OPERATIONS 379–80 (Ashton Carter et al., eds., 1987).

[441] FREEDMAN, *supra* note 134, at 431–32.

[442] *Id*. at 432.

[443] Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts, Jun. 8 1977 [hereinafter AP I], *reprinted in* SCHINDLER & TOMAN, *supra* note 53, at 711-74; Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of victims of Non-International Armed Conflicts, Jun. 8, 1977 [hereinafter AP II], *reprinted in* SCHINDLER & TOMAN, *supra* note 53, at 775-818.

A. Background

The Additional Protocols, which were negotiated during multiple formal and informal sessions of a 1974–1977 diplomatic conference.[444] The First Additional Protocol addressed law-of-war issues in international armed conflicts. The ICRC began the discussion by presenting draft protocols with the understanding that they were not intended to broach problems relating to atomic, bacteriological or chemical warfare.[445] The United States, United Kingdom and Soviet Union endorsed the ICRC position.[446] The United States, along with other nations, signed the protocols while providing statements of understanding that the rules did not affect, regulate or prohibit the use of nuclear weapons.[447]

The inapplicability of AP I to nuclear weapons is not in the language of the treaty and thereby caused concern with the United States[448] In 1985, a Joint Chiefs of Staff memo explained that "the rules against indiscriminate methods of warfare and excessive collateral damage . . . might severely limit the utility of [nuclear] weapons."[449] The memo also recognized that legal experts were disputing the applicability of the treaty to nuclear weapons.[450] The military was concerned with making a reservation to the treaty over the nuclear issue:

> The problem with taking a treaty reservation on AP I's inapplicability to nuclear weapons is that such an act would constitute a formal admission that, in the absence of the reservation, the Protocol does apply to nuclear and chemical weapons. This could create problems if the United States needed to launch such weapons from the soil of allies who had not taken a similar reservation.[451]

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[444] BOTHE ET AL., *supra* note 225, at ix. The high level expert discussions leading to AP I may have influenced nuclear targeting changes in the 1970s.
[445] *Id*. at 218.
[446] *Id*. at 219.
[447] *Id*. at 219–20; 2015 DoD LAW OF WAR MANUAL ¶ 6.18.3.
[448] Appendix to John W. Vessey, Jr., Chairman, Joint Chiefs of Staff, Review of the 1977 First Additional Protocol to the Geneva Conventions of 1949, May 3, 1985, at 90.
[449] *Id*.
[450] *Id*. at 91.
[451] *Id*. at 90.

The memo ultimately recommended that if the United States ratified the treaty, it should expressly condition its ratification on acceptance of an understanding excluding the use of nuclear and chemical weapons from regulation by the Protocol "to make it clear that the rules related to use of weapons in the Protocol do not have *any effect on* the use of nuclear or chemical weapons."[452]

The ratification language was never needed. In a letter to the Senate, President Reagan unequivocally rejected the treaty, stating, "Protocol I is fundamentally and irreconcilably flawed."[453] One of the major factors for the United States' rejection of AP I was its radical abolition of the doctrine of belligerent reprisal against enemy civilian populations.[454] The doctrine allowed such attacks in response to the enemy's law-of-war violations with the intent to deter the enemy from future violations.[455] The concern was that without the sanctions permitted under this doctrine, an adversary could attack U.S. cities and the United States would be legally prohibited from responding in kind.[456]

B. The Articulation of Law-of-War Principles

Even after rejecting AP I, the United States considered portions of it as reflecting customary international law.[457] The question became which provisions reflect customary international law, and which of those, if any, would be applicable to the use of nuclear weapons?

Prior to AP I, the U.S. military's understanding of the law of war was presented primarily in the 1956 Army Field Manual, *The Law of Land Warfare*, which was updated in 1976. It articulated three law-of-war

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[452] *Id*. at 91.

[453] Ronald Reagan, Message to the Senate Transmitting a Protocol to the 1949 Geneva Conventions, January 29, 1987. For a detailed critique of AP I's faults, *see* Abraham D. Sofaer, *The Position of the United States on Current Law of War Agreements*, 2 AM. U. J. INT'L L. & POL'Y 467–68 (1987); Parks, *Air War and the Law of War*, *supra* note 56.

[454] Sofaer, *supra* note 453, at 469.

[455] *Id*.

[456] *Id*.

[457] *See* Matheson, *supra* note 404, at 427; 1977 Protocols Additional to the Geneva Conventions: Memorandum for Mr. John H. McNeill, Assistant Gen. Counsel, Office of the Secretary of Defense, Customary International Law Implication (May 9, 1986) *reprinted in* The Judge Advocate General's Legal Center & School, LAW OF ARMED CONFLICT DOCUMENTARY SUPPLEMENT 234 (2012).

principles: humanity, chivalry, and military necessity.[458] Since signing AP I, the United States acknowledged proportionality and distinction as principles of the law of war.[459] The 2015 *DoD Law of War Manual* explains proportionality and distinction are founded upon the three earlier principles.[460]

In 1987 Michael Matheson, Deputy Legal Advisor to the U.S. State Department, outlined the U.S. position on aspects of AP I to an American Red Cross Conference on International Humanitarian Law. During those remarks he endorsed the application of the principle of proportionality:

> We support the principle that the civilian population as such, as well as individual citizens, not be the object of acts or threats of violence the primary purpose of which is to spread terror among them, and that attacks not be carried out that would clearly result in collateral civilian casualties disproportionate to the expected military advantage.[461]

The U.S. military had long followed a similar requirement, found under the heading "unnecessary killing and devastation" within the Army's Field Manual.[462] In other words, the requirement to conduct

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[458] U.S. DEP'T OF ARMY, FIELD MANUAL 27-10, THE LAW OF LAND WARFARE (C1, 1976) ¶ 3 [hereinafter 1976 FM 27-10]. U.S. DEP'T OF AIR FORCE, AIR FORCE PAMPHLET 110-31, INTERNATIONAL LAW—THE CONDUCT OF ARMED CONFLICT AND AIR OPERATIONS, November 19, 1976 [hereinafter AFP 110-31] (listing the same three principles). AFP 110-31 ¶ 1-3.

[459] LAW OF WAR MANUAL, *supra* note 19, ¶ 2.6 (recasting "chivalry" as "honor").

[460] *Id*., ¶ 2.1. Sean Watts, *The DOD Law of War Manual's Return to Principles*, JUST SECURITY (June 30, 2015, 9:12 AM), https://www.justsecurity.org/24270/dod-law-war-manuals-return-principles/.

[461] Matheson, *supra* note 404, at 426. AP I, art. 51(5)b contains the language of proportionality provision prohibiting attacks "which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated." AP I, art. 51(2) (containing the prohibition against attacks with the primary purpose of spreading terror).

[462] 1976 FM 27-10, *supra* note 458, ¶ 41 ("[L]oss of life and damage to property incidental to attacks must not be excessive in relation to the concrete and direct military advantage expected to be gained.").

proportional attacks is not a new rule. The challenge with proportionality, however, is its subjective and imprecise nature.[463]

The principle of distinction, also known as discrimination, was also codified in AP I, requiring that all parties to a conflict "shall at all times distinguish between the civilian population and combatants and between civilian objects and military objectives and accordingly shall direct their operations only against military objectives."[464] The principle, which is that military violence be directed at military targets, is directly related to the principle of military necessity.[465] It is also related to the principle of humanity, which prohibits actions not required by military necessity.[466] AP I's construction of the discrimination principle in Article 48 also codified the duty of a defender to keep civilian populations and objects distinct from military ones.[467] The principle of discrimination, however, is not new. Its origins have been traced back to the Hague Conventions and the 1965 ICRC pronouncement endorsed by the United Nations General Assembly.[468]

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[463] LAW OF WAR MANUAL, *supra* note 19, at ¶ 2.4.1.2; Rogier Bartels, *Dealing With the Principle of Proportionality in Armed Conflict in Retrospect: The Application of the Principle in International Criminal Trials*, 46 ISR. L. REV. 271, 275-76 (2013). In 1982, Major General J.P. Wolfe, Judge Advocate General for the Canadian Defense Forces, and W. Hays Parks, Chief, International Law Branch, International Affairs Division, in the Office of The Judge Advocate General of the Army, debated the standard for violations of proportionality; they eventually agreed that "proportionality was gauged by 'casualties so excessive . . . as to be tantamount to the intentional attack of the civilian population, or to the total disregard for the civilian population.'" *More "Rolling Thunder" (Editor's Note)*, XXIII AIR U. REV. 6, 82, 84 (1982), https://babel.hathitrust.org/cgi/pt?id=uiug.30112105112301;view=1up;seq=84.

[464] AP I, art. 48; Parks, *Air War and the Law of War*, *supra* note 56, at 113 ("Article 48 states the fundamental principle of discrimination, a principle with which there should be no disagreement."). While Article 48's general restatement of the principle of discrimination is in keeping with the U.S. view of customary international law, subsequent articles in AP I are more problematic. Parks, *Air War and the Law of War*, *supra* note 56, at 113.

[465] Parks, *Air War and the Law of War*, *supra* note 56 at 14. The principle of military necessity "justifies those measures not forbidden by international law which are indispensable for securing the complete submission of the enemy as soon as possible." 1976 FM 27-10, *supra* note 464, ¶ 3; *see also* LAW OF WAR MANUAL, *supra* note 19, at ¶ 2.2.

[466] LAW OF WAR MANUAL, *supra* note 19, ¶ 2.3.1.1.

[467] BOTHE ET AL., *supra* note 225, 323–24.

[468] *Id*. at 321-23; LAW OF WAR MANUAL, *supra* note 19, ¶ 2.5 n.80.

C. Targeting Provisions

Arising from the principle of discrimination, AP I articulates targeting guidance with the first definition of "military objective" articulated in a treaty since the Hague Conventions.[469] Article 52(2) contains key language:

> Attacks shall be limited strictly to military objectives. In so far as objects are concerned, military objectives are limited to those objects which by their nature, location, purpose or use make an effective contribution to military action and whose total or partial destruction, capture or neutralization, in the circumstances ruling at the time, offers a definite military advantage.

This establishes a two-part test for attacks.[470] First, the entity to be attacked must make an effective contribution to military action. Second, attacking the entity must offer a definite military advantage under existing circumstances. Both parts of the test must exist for an attack to be legitimate.

This definition of military objective can be found almost verbatim in the 1976 update to the 1956 Army Field Manual. [471] It is repeated word-

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[469] Parks, *Air War and the Law of War*, *supra* note 56, at 33 n.124.
[470] LAW OF WAR MANUAL, *supra* note 19, ¶5.6.5.
[471] The 1976 update to the 1956 Field Manual reads:

> Military objectives— *i.e.*, combatants, and those objects which by their nature, location, purpose, or use make an effective contribution to military action and whose total or partial destruction, capture or neutralization, in the circumstances ruling at the time, offers a definite military advantage—are permissible objects of attack (including bombardment). Military objectives include, for example, factories producing munitions and military supplies, military camps, warehouses storing munitions and military supplies, ports and railroads being used for the transportation of military supplies, and other places that are for the accommodation of troops or the support of military operations. Pursuant to the provisions of Article 25, HR [Universal Declaration of Human Rights], however, cities, towns, villages, dwellings, or buildings which may be classified as military objectives, but which are undefended . . . , are not permissible objects of attack.

for-word in the 1976 Air Force Pamphlet on international law and the law of war.[472] Thus, AP I Article 52(2) did not appear to be controversial in 1977.

The standard did create some concern within the U.S. Department of Defense. In a 1982 preliminary assessment, the Joint Chiefs of Staff raised concerns with possible interpretations requiring attack effects to be strictly confined to military objectives, rather than relying on the traditional proportionality standards.[473] The report expressed problems the standard would potentially create with strategic bombardment:

> Strategy aimed at destruction of the enemy's political infrastructure or economic or industrial establishment might result in targeting objects that make only a remote contribution to military action but significantly curtail the enemy's will to continue hostilities. To the extent that this article prohibits strategic bombing, it could severely impede US war efforts.[474]

The 1985 Joint Chiefs of Staff final assessment; however, determined that the definition of military objective within Article 52(2) included "political and economic activities" and ultimately characterized the standard as "militarily acceptable."[475] A year later, U.S. military service lawyers wrote that AP I Article 52(2) reflected customary international law.[476] While this rule prohibits attacks on civilian objects, it does not

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1976 FM 27-10, *supra* note 458, ¶ 40.c.

[472] AFP 110-31, *supra* note 458, ¶ 5-3b(1).

[473] Joint Chiefs of Staff, *Review of the 1977 Protocols to the 1949 Geneva Conventions, JCS 2497/24-4*, DEP'T OF DEF. 32 (Sept. 13, 1982) http://www.dod.mil/pubs/foi/Reading_Room/Special_Collections/13-M-3010.pdf.

[474] *Id*. at 33.

[475] Appendix to John W. Vessey, Jr., Chairman, Joint Chiefs of Staff, Review of the 1977 First Additional Protocol to the Geneva Conventions of 1949, May 3, 1985, at 51-52.

[476] Memorandum for Mr. John H. McNeill, *supra* note 457. Note that one service attorney, Mr. W. Hays Parks, Chief of the Army's International Law Team, International Affairs Division, later challenged the status of the AP I Article 52(2) as customary international law. W. Hays Parks, *Asymmetries and the Identification of Legitimate Military Objectives*, *in* INTERNATIONAL LAW FACING NEW CHALLENGES 91–92 (2007) (Parks was assigned to the U.S. Department of Defense General Counsel's office at the time of the 2007 article). In a 1990 article, Parks questioned how to apply the AP I Article 52(2) standard when considering potential targets that would have significant psychological effects, but not significantly contribute to military action. Parks, *Air War and the Law of War*, *supra* note 56, at 141-42 n.421. Examples he discussed included the Second World War's Doolittle

address collateral damage resulting from attacks on military objectives.[477] As discussed below, AP I Article 52(2) continues to be important as it establishes a universal targeting standard and frames the legal debate over economic targets.[478]

Raid and the 1986 Operation ELDORADO CANYON. The 1942 Doolittle Raid targeted military objectives in Tokyo and four other Japanese cities: Yokohama, Nagoya, Osaka, and Kobe. CARROLL GLINES, THE DOOLITTLE RAID: AMERICA'S FIRST DARING STRIKE AGAINST JAPAN 52, 55 (1988). Pilots were instructed to aim only at military targets like military installations, war industries, ship building facilities, power plants, and oil refineries while being directed not to strike residential areas, hospitals, schools, temples, the Imperial Palace, or similar locations. *Id.* at 55; THE ARMY AIR FORCES IN WORLD WAR II, VOLUME I, PLANS AND EARLY OPERATIONS JANUARY 1939 TO AUGUST 1942 442 (Wesley Craven & James Cate eds., 1983). Similarly, Operation ELDORADO CANYON targeted military objectives within Libya, specifically Qadhafi's terrorist-training infrastructure and a fighter aircraft base. Judy G. Endicott, *Raid on Libya: Operation ELDORADO CANYON*, *in* SHORT OF WAR: MAJOR USAF CONTINGENCY OPERATIONS 1947-1997 149 (A. Timothy Warnock, ed., 2000). The Libyan targets were of a military nature and were thereby lawful targets under AP I Article 52(2). If the primary purpose of a strike, however, was to spread "terror" among civilians, then AP I Article 51(2) would prohibit the attack.

Other military attorneys have also been critical of AP I for creating new limits inconsistent with customary law. *See* Jeanne Meyer, *Tearing Down the Façade: A Critical Look at the Current Law on Targeting the Will of the Enemy and Air Force Doctrine*, 51 AIR FORCE L. REV. 143 (2001) (arguing that attacks on civilian morale and property would be lawful so long as attacks are not directed at civilian lives and otherwise comply with military necessity); Charles Dunlap, *The End of Innocence: Rethinking Noncombatancy in the Post-Kosovo Era*, 28 STRATEGIC REV. 9 (2000); Charles Dunlap, *Targeting Hearts and Minds: National Will and Other Legitimate Military Objectives of Modern War*, *in* INTERNATIONAL LAW FACING NEW CHALLENGES 120 (2007) (arguing that "civilian morale is considered simply a constituent element of the adversary's national will that . . . war seeks to destroy[,]" while caveating that civilians may not be attacked directly.); *c.f.* Parks, *Air War and the Law of War*, *supra* 56, at 113 (explaining that he is troubled by the expanding definition of military objectives to the extent advocated by Dunlap); A. P. V. ROGERS, LAW ON THE BATTLEFIELD 118 (3d ed. 2012) (criticizing Dunlap's redefinition of "military objective" as not necessarily reducing civilian casualties and not working in conflicts against poor countries). The Meyer and Dunlap interpretations seem to be in keeping with Spaight's writings, where non-military industry and civilian buildings would be eligible for attack when civilian casualties are unlikely. *See supra* Section II.D.

[477] BOTHE ET AL., *supra* note 225, at 363.

[478] In 1987, the U.S. State Department Legal Adviser explained, "[T]he United States has no great concern over the new definition of 'military objective' set forth in article 52(2) of Protocol I." Matheson, *supra* note 404, at 426. In 2016, the U.S. State Department Legal Adviser confirmed that the United States applies the AP I, art. 52(2) standard to the conduct of hostilities during non-international armed conflicts as a matter of customary international law. Brian Egan, *International Law, Legal Diplomacy, and the Counter-ISIL Campaign: Some Observations*, 92 INT'L L. STUD. 235, 242 (2016).

D. Increased Role for Legal Advisers in the Targeting Process

Another perhaps overlooked ramification of AP I on targeting has been a requirement for military commanders to have legal advisors available when necessary to consult on law-of-war issues.[479] At the time this requirement was drafted, the United States believed it was in substantial compliance.[480] In the decade after AP I was signed, the United States significantly improved its legal support to targeting and operations.

Prior to the Protocol, military judge advocates in the United States focused primarily on military justice matters, claims, and legal assistance.[481] During the Vietnam War, for example, there were no judge advocates systematically advising commanders in Vietnam on potential targets or rules of engagement at the base level, within the tactical air control center, or at the unified command level.[482] Legal advice from judge advocates appeared to be provided nearly exclusively by legal advisors to the Chairman of the Joint Chiefs of Staff.[483] One exception to this highly centralized advice was an exchange officer at the Thailand embassy who was an Air Force judge advocate.[484] He advised airmen operating out of Thailand, including regular reviews of target lists to ensure targets were lawful, compliant with the law of war, and were in keeping with the sensitivities of the Thailand government.[485]

The Army and Air Force appeared to realize the need for increased involvement by judge advocates in operations around the same time. The 1983 Operation URGENT FURY in Grenada led the U.S. Army to

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[479] AP I, art. 82.
[480] Matthew Winter, *"Finding the Law"—The Values, Identity, and Function of the International Law Advisor*, 128 MIL. L. REV. 6 (1990).
[481] Michael Denny, *The Impact of Article 82 of Protocol I to The 1949 Geneva Conventions on the Organization and Operation of a Division SJA Office*, ARMY LAW., Apr. 1980, at 15; Charles Dunlap, *The Revolution in Military Legal Affairs: Air Force Professionals in 21st Century Conflicts*, 51 AIR FORCE L. REV. 293, 296 (2001).
[482] FREDERIC BORCH, JUDGE ADVOCATES IN COMBAT viii (2001); Terrie Gent, *The Role of Judge Advocates in a Joint Air Operations Center, A Counterpoint of Doctrine, Strategy and Law*, AIRPOWER J. (1999) http://www.airpower.maxwell.af.mil/airchronicles /apj/apj99/spr99/gent.html. .
[483] W. Hays Parks, *The Law of War Advisor*, 31 JAG J. 1, 12 (1980).
[484] Gent, *supra* note 482.
[485] *Id*.

formally create an operational law discipline.[486] In 1988, the Joint Chiefs of Staff officially required combatant commanders to have legal advisors available to provide advice on the law of war, rules of engagement, and related matters during planning and execution of joint and combined exercises and operations.[487] Thus, military judge advocates were able to support Operation JUST CAUSE in Panama at all levels of command and across services.[488] Their involvement in operations increased during DESERT STORM.[489] When U.S. Strategic Command was established as the combatant command successor to Strategic Air Command, its first staff judge advocate reported that his attorneys "had a seat at the battle staff, and otherwise prepared for the possibility of strategic conflict."[490]

X. Nuclear Weapons and the Law of War: The Clinton Years

The Clinton administration publically articulated the policy and law applicable to nuclear weapons in considerable detail. This was due, in part, to the end of the Cold War and to litigation brought before the United Nations International Court of Justice. The administration also built upon non-proliferation agreements with restrictions on nuclear targeting.

A. Historical and U.S. Policy Developments: Nuclear Posture Review and Threats

Writing in 1991, Professor Howard Levie commented, "It is probably necessary to conclude that if and when an armed conflict approaches the nuclear stage, law will play a very small role in determining the actions of the belligerents."[491] The decade of 1990s proved to be a dynamic time for the law of war and the debate over the role of nuclear weapons. President William J. Clinton entered office after the Cold War and conducted a

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[486] BORCH, *supra* note 482, at x; David Graham, *Operational Law—A Concept Comes of Age*, ARMY LAW., July 1987, at 9.
[487] Gent, *supra* note 482.
[488] *Id*.
[489] Dunlap, *The Revolution in Military Legal Affairs: Air Force Professionals in 21st Century Conflicts*, *supra* note 481, at 296.
[490] William Moorman, *Flying "The Glass"*, 26 THE REPORTER, 118 (1999).
[491] Howard S. Levie, *Nuclear, Chemical, and Biological Weapons*, 64 U.S. NAVAL WAR COLLEGE INT'L L. STUD. 334 (1991).

Nuclear Posture Review, which was completed in 1994.[492] The results modified force structures, but did not make significant changes to weapon employment guidance.[493] The focus of deterrence shifted to include the growing threat from the proliferation of Weapons of Mass Destruction (WMD).[494] President Clinton's policy, issued in 1997 as Presidential Decision Directive 60, removed Reagan-era references to prevailing in a nuclear conflict, but retained the right to respond to aggression with nuclear weapons.[495] Meanwhile, the U.S. Congress, through a National Defense Authorization Act, prohibited the Department of Energy from conducting research and development into nuclear weapons with a yield under five kilotons.[496]

B. Legal Developments: Nuclear Weapons and the International Court of Justice

The attention to nuclear weapons law in the nineties was not generated by Presidential policy or an international crisis, but by the international community acting through the United Nations. The United Nations General Assembly had passed nonbinding resolutions condemning nuclear weapons for decades.[497] In December 1994, however, the General Assembly approved a resolution asking the United Nation's International Court of Justice (ICJ) for an advisory opinion on the following question:

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[492] Paul Bernstein, *Post-Cold War US Nuclear Strategy*, *in* ON LIMITED NUCLEAR WAR IN THE 21ST CENTURY 83 (Jeffrey Larsen & Kerry Kartchner, eds., 2014).

[493] *Id*.

[494] *Id*. at 84.

[495] *Id.* at 85.

[496] Pub. L.No. 103-160, § 3136 (1993). This legislation effectively ended development of very low yield nuclear weapons, as defined as those with a yield under five kilotons. The bomb used at Hiroshima was 15 kilotons. Jonathan Medalia, *Nuclear Weapon Initiatives: Low-Yield R&D, Advanced Concepts, Earth Penetrators, Test Readiness*, CRS Report for Congress, RL32130, Oct. 28, 2003, at 6.

[497] Charles Dunlap, *Taming Shiva: Applying International Law to Nuclear Operations*, 42 AIR FORCE L. REV. 157, 159-60 (1997); *see also Declaration on the Prohibition of the Use of Nuclear and Thermonuclear Weapons*, G.A. Res. 1653 (XVI) (Nov. 24, 1961); *Non-Use of Force in International Relations and Permanent Prohibition of the Use of Nuclear Weapons*, G.A. Res. 2936 (XXVII) (Nov. 29, 1973); G.A. Res. 33/71-B (Dec. 14, 1978); G.A. Res. 35/152-D (Dec. 12, 1980); G.A. Res. 36/92-I (Dec. 9, 1981); *Convention on the Prohibition of the Use of Nuclear Weapons*, G.A. Res. 46/37-D (Dec. 9, 1991); G.A. Res. 47/53C (Dec. 9, 1992).

"Is the threat or use of nuclear weapons in any circumstances permitted under international law?"[498]

The ICJ issued a non-binding advisory decision in 1996.[499] By an eleven-to-three decision, the ICJ determined the answer to the General Assembly's question: "There is in neither customary nor conventional international law any comprehensive and universal prohibition of the threat or use of nuclear weapons as such . . . ."[500] The ICJ unanimously determined that any threat or use of force involving nuclear weapons "should also be compatible with the requirements of the international law applicable in armed conflict, particularly those of the principles and rules of the international humanitarian law" and treaty requirements.[501] By a seven-to-seven vote, the court made its most controversial statement, explaining:

> [T]he threat or use of nuclear weapons would generally be contrary to the rules of international law applicable in armed conflict, and in particular the principles and rules of humanitarian law;
>
> However, in view of the current state of international law, and of the elements of fact at its disposal, the Court cannot conclude definitively whether the threat or use of nuclear weapons would be lawful or unlawful in an extreme circumstance of self-defence, in which the very survival of a State would be at stake[.][502]

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[498] Request for an Advisory Opinion from the International Court of Justice on the Legality of the Threat or Use of Nuclear Weapons, G.A. Res. 49/75K (Dec. 15, 1994).

[499] For a detailed critique of the opinion, see Robert F. Turner, *Nuclear Weapons and the World Court: The ICJ's Advisory Opinion and Its Significance for U.S. Strategic Doctrine*, 72 U.S. NAVAL WAR COLLEGE INT'L L. STUD. 309 (1998); Michael Schmitt, *The International Court of Justice and the Use of Nuclear Weapons*, LI:2 NAVAL WAR COLLEGE REV. 91 (1998).

[500] Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. 226, ¶ 105(2)B (July 8) [hereinafter 1996 ICJ Advisory Opinion].

[501] *Id*. ¶ 105(2)D.

[502] *Id*. ¶ 105(2)E. The rules of the ICJ allowed the court's President to cast a tie-breaking vote. ICJ STAT. art. 55(2). The ICJ President, Mohommed Bedjaoui of Algeria, separately wrote that nuclear weapons were the "ultimate evil." 1996 ICJ Advisory Opinion, *supra* note 5, Declaration of President Bedjaoui, ¶ 20.

The court failed to provide any meaningful guidance as to what would amount to an "extreme circumstance of national defense." This decision by the ICJ, where a weapon might be considered lawful under limited circumstances of national survival, is inconsistent with *jus in bello*, which prescribes rules independent of the political righteousness of a belligerent's *causes beli*.[503] In another sense, the ICJ decision appears consistent with AP I article 52(2) analysis for strikes: attack assessments are always based on the circumstances ruling at the time.

Perhaps more informative than the ICJ's non-binding decision were the actions taken and statements provided by the governments of the nuclear weapon states during the litigation. For example, in April 1995, the international community determined to permanently extend the 1968 Nuclear NPT. President Clinton made a statement of U.S. policy:

> The United States reaffirms that it will not use nuclear weapons against non-nuclear-weapon States Parties to the Treaty on the Non-Proliferation of Nuclear Weapons except in the case of an invasion or any other attack on the United States, its territories, its armed forces or other troops, its allies, or on a State towards which it has a security commitment, carried out or sustained by such a non-nuclear-weapon State in association or alliance with a nuclear-weapon State.[504]

France, Russia, and the U.K. made similar policy declarations.[505]

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[503] YORAM DINSTEIN, WAR AGGRESSION AND SELF-DEFENCE 173 (5th ed. 2011).

[504] Written Statement of the Government of the United States of America before the International Court of Justice, June 20, 1995 (Request by the United Nations General Assembly for an Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons) 16 [hereinafter U.S. Statement to ICJ].

[505] *Id.* The United States and other nuclear weapon states also took action to further build the nuclear NPT regime. In April 1996, the United States, the United Kingdom, China, and France signed Protocols I and II to the African Nuclear-Weapon-Free Zone Treaty, known as the Treaty of Pelindaba Treaty. Protocols I and II to the Pelindaba Treaty, Apr. 11, 1996, United Nations U.N. Office for Disarmament Affairs Treaty Database, http://disarmament.un.org/treaties/t/pelindaba. Russia signed the Protocols in November 1996. *Id.* The text of the Pelindaba Treaty is available as part of the same U.N. data-base and is available at http://disarmament.un.org/treaties/t/pelindaba/text. The treaty, which is open to African states, prohibits research, development, manufacture, stockpiling, acquisition, testing, possession, control, or stationing of nuclear ex-plosive devices by state parties. Protocol I signatories agreed not use or threaten to use a nuclear explosive device against any of the African state parties to the treaty. Protocol I to the Pelindaba Treaty, art.

On June 20, 1995, the U.S. State Department filed an official position regarding the pending ICJ nuclear weapons case. The statement, signed by Mr. Matheson, contains important guidance for nuclear weapon targeting law. The United States agreed that principles of the law of war applied to the use of nuclear weapons.[506] As to AP I, the United States explained that its "new rules" did not apply to non-ratifying states or to the use of nuclear weapons.[507] The United States reaffirmed that it would be unlawful to use nuclear weapons on civilian populations, subject to the right of reprisal.[508] This rule, however, would not be violated when attacking military objectives that might cause collateral civilian injury or damage.[509] As to proportionality, the United States explained that nuclear weapons could be used proportionally, but this would depend on the nature of the enemy threat, the importance of destroying the objective, the nature and size of the nuclear blast and the magnitude of risk to civilians.[510] Similarly, nuclear weapons could be used discriminately based on tailored effects (i.e., size of yield, blast height, offset targeting, etc.) and precision guidance systems.[511] The significance of the official U.S. legal pleading to the ICJ is greater than being a simple argument in a non-binding court; it established an official written U.S. policy statement on nuclear weapon targeting to account for law-of-war concerns.

Ultimately, the ICJ decision had little practical impact on U.S. nuclear weapon employment policy. Ten years after the opinion, the U.S. State Department's deputy legal adviser explained "much of the Court's discussion was generally reflective of the state of international law . . . ."[512]

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1. Under Protocol II, the signatories agreed not to test, assist or encourage the testing of nuclear explosive devices within treaty's zone. Protocol II to the Pelindaba Treaty.

[506] U.S. Statement to ICJ, *supra* note 504, at 21.

[507] *Id.* at 25. The United States has not comprehensively detailed precisely which provisions of AP I represent "New Rules." *See supra* Part XIII. Relevant to targeting law, the abolition of the doctrine of belligerent reprisal against enemy civilian populations, cultural objects and places of worship, objects indispensable to the survival of the civilian population, the natural environment, and works and installations containing dangerous forces all represented "new rules." *Id*. at 31; Matheson, *supra* note 404, at 426. Similarly, the environmental protections established in AP I art. 33(1), arts. 55, 56 were "new rules." U.S. Statement to ICJ, *supra* note 504, at 30; Matheson, *supra* note 404, at 424, 427.

[508] 1995 U.S. Statement to ICJ, *supra* note 504, at 26.

[509] *Id.* at 22.

[510] *Id.* at 23.

[511] *Id.*

[512] Deputy Legal Adviser Bettauer's address before the Lawyer's Committee on Nuclear Policy re U.S. compliance with nuclear policy (October 10, 2006), *reprinted in* Digest of United States Practice in International Law 2006, https://www.state.gov/ s/l/2006/

Moreover, the United States did not believe the ICJ's nonbinding response "necessitated any changes in the nuclear posture and policy of the United States."[513]

C. Developments in U.S. Military Doctrine and Policy Guidance

The U.S. military also promulgated unclassified guidance during the Clinton administration. In December 1995, the U.S. Department of Defense published a remarkable document: Joint Publication (JP) 3-12, *Doctrine for Joint Nuclear Operations*.[514] JP 3-12 emphasized the deterrent role of nuclear weapons, repeating a warning from the National Military Strategy that the United States would "dominate" conflicts should WMD be used by an adversary against U.S. forces, which in the context of nuclear doctrine is a stern warning indeed.[515] The JP 3-12 told the military to consider countervalue and counterforce targeting.[516] Countervalue targets were defined as the adversary's "military and military related activities, such industries, resources, and/or institutions *that contribute to the enemy's ability to wage war*."[517] The guidance pointed out, weapons required to implement countervalue targeting "need not be as numerous or accurate as those required to implement a counterforce targeting strategy, because *countervalue targets generally tend to be softer and unprotected* in relation to counterforce targets."[518] Counterforce targets were defined as WMD-related forces and facilities requiring larger and more accurate weapons because the targets tended to

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98879.htm.

513 *Id*.

514 JOINT CHIEFS OF STAFF, JOINT PUB. 3-12, DOCTRINE FOR JOINT NUCLEAR OPERATIONS (15 Dec. 1995) [hereinafter JP 3-12].

515 *Id.* at I-1.

516 *Id.* at vi.

517 *Id.* at II-5. Herman Kahn, a physicist-turned-nuclear strategist, popularized the term "countervalue" in the targeting context. HERMAN KAHN, ON THERMONUCLEAR WAR 179 (2d ed., 1961). He defined a countervalue attack as one where the attacker tries "to destroy those things which the defender prizes most highly regardless of whether such destruction helps the attacker to achieve an immediate or essential military objective." HERMAN KAHN, THINKING ABOUT THE UNTHINKABLE 63 (1962). He believed countervalue targets were primarily people and property, but acknowledged that some states might assign a higher value to military power. *Id.* Kahn wrote that countervalue targets were irrational and would merely waste weapons. *Id*. at 64-67. The JP 3-12's definition of countervalue targets differed significantly from Kahn's by requiring the target to be a valid military objective.

518 JP 3-12, *supra* note 514 at II-5 (emphasis in original).

harder and better protected.[519] The JP 3-12 also instructed targeting to limit collateral damage.[520] This publication even contained an annex listing treaties that established obligations for nuclear operations.[521]

JP 3-12 was supplemented by another unclassified document: JP 3-12.1, *Doctrine for Joint Theater Nuclear Operations.*[522] The document had early sections on "The Law of Armed Conflict," emphasizing the legality of nuclear weapons. The JP 3-12.1 also made clear, "any weapon used must be considered a military necessity, and measures must be taken to avoid collateral damage and unnecessary suffering. Since nuclear weapons have greater destructive potential, in many instances they may be inappropriate."[523] For nuclear strike targeting, JP 3-12.1 specified enemy combat forces and facilities, while factoring in the need for environmental awareness and to avoid collateral damage.[524] The JP 3-12.1 had a separate section addressing the use of nuclear weapons to produce a political decision by an adversary or otherwise influence its operations.[525] By separating these goals from the law of war section, JP 3-12.1 validated the concept that targets must be independently lawful prior to prioritizing them for political or psychological effects. The record is unclear as to whether JP 3-12 and JP 3-12.1 were published as unclassified documents in order to emphasize the legality of nuclear operations, or whether they were intended to increase deterrence, or both. Together, they went further in articulating DoD's understanding of the applicability of the law of war

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519 *Id*.

520 *Id.* at II-6.

521 *Id*. at Annex A.

522 JOINT CHIEFS OF STAFF, JOINT PUB. 3-12.1, DOCTRINE FOR JOINT THEATER NUCLEAR OPERATIONS (9 Feb 1996) [hereinafter JP 3-12.1].

523 *Id*. at v-vi; *see also id.* at I-1:

> [T]o comply with the law, a particular use of any weapon must satisfy the long-standing targeting rules of military necessity, proportionality, and avoidance of collateral damage and unnecessary suffering. *Nuclear weapons are unique in this analysis only in their greater destructive potential* (although they also differ from conventional weapons in that they produce radiation and electromagnetic effects and, potentially, radioactive fallout).

Id..

524 *Id*. at 3-12.1.

525 Dunlap, *Taming Shiva: Applying International Law to Nuclear Operations*, *supra* note 497, at 164.

to nuclear operations than was previously available to the public.[526] DoD's articulation of these legal restraints was consistent with the absence of an existential communist threat to national survival.

XI. Operation ALLIED FORCE and the Economic Targeting Debate

Targeting an adversary's industrial and economic areas was a long-standing strategy of the United States and Soviets during the Cold War. Based on the experience of total war and conflict escalation, these targets were viewed as legitimate. Operation ALLIED FORCE, a seventy-eight-day U.S. and NATO air campaign, served to ignite a debate over the legitimacy of targeting economic objects as military objectives.[527]

A. Overview of the Operation

The goal of ALLIED FORCE in Kosovo was to bring an end to atrocities by Serbian forces under the control of Slobodan Milosevic.[528] Destroying Serbian forces proved to be difficult because the Serbian military remained hidden from view and only traveled under limited circumstances.[529] The NATO air attacks, therefore, focused on selected infrastructure targets, such as bridges and electric-power systems, to degrade the ability of the Serbian military to command and control its forces or to resupply and reconstitute them.[530] Air strikes were reportedly designed to weaken support for Milosevic by destroying objects serving both a military and civilian purpose like bridges, communications and electrical power facilities.[531] Moreover, reports surfaced that NATO was

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[526] Both publications were withdrawn in 2005, because these were determined to be policy documents, not doctrine. Subsequent replacement policy publications are highly classified.

[527] U.S. DEPT. OF DEFENSE REPORT TO CONGRESS, KOSOVO/OPERATION ALLIED FORCE AFTER-ACTION REPORT (31 Jan. 2000), http://www.dod.gov/pubs/kaar02072000.pdf.

[528] *Id*. at Secretary Cohen's Message, 1.

[529] *Id*. at 10, 61.

[530] *Id*. at 10–11.

[531] AMNESTY INTERNATIONAL, FEDERAL REPUBLIC OF YUGOSLAVIA (FRY) /NATO: "COLLATERAL DAMAGE" OR UNLAWFUL KILLINGS? VIOLATIONS OF THE LAWS OF WAR BY NATO DURING OPERATION ALLIED FORCE 1 (June 5, 2000), https://www.amnesty.org/en/documents/EUR70/018/2000/en/; HUMAN RIGHTS WATCH, THE CRISIS IN KOSOVO (Feb. 2010), http://www.hrw.org/reports/2000/nato/Natbm200-01.htm; Daniel Lake, *The Limits of Coercive Airpower*, 34 INT'L SECURITY 107 (2009); Julian Tolbert, Crony Attack:

striking factories owned by supporters of Milosevic and other objects for purely coercive purposes, i.e., to make Serbians reconsider their support for Milosevic.[532] These target descriptions subsequently generated significant legal controversy.

B. Resulting Legal Debates

In a 2002 collection of articles entitled "Legal and Ethical Lessons of NATO's Kosovo Campaign," Law Professor Yoram Dinstein explained that the United States was stretching AP I Article 52(2)'s definition of military objective beyond the plain meaning of its words to justify striking economic objects that did not constitute military objectives.[533] Dinstein pointed out that valid targets were those that made "an effective

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Strategic Attack's Silver Bullet?, 31-33 (Nov. 2006) (unpublished thesis, U.S. Air Force School of Advanced Air and Space Studies), http://www.dtic.mil/dtic/tr/fulltext/u2/a462291.pdf .

[532] Arkin, *Smart Bombs, Dumb Targeting?*, BULL. OF ATOMIC SCIENT. 46-53 (2000); Lake, *supra* note 540, at 107; Human Rights Watch reported that unnamed U.S. military sources admitting destroying certain bridges for psychological or symbolic value, rather their value to the Serbian military. Human Rights Watch, *supra* note 531. The accuracy of these reports, however, are questionable. Judith Miller, who was with the DoD General Counsel's Office during the conflict, wrote, "In each case a direct military link was required, or only those portions of the facility having military utility, or conducting military work, were targeted." Judith Miller, *Commentary*, 78 U.S. NAVAL WAR COLLEGE INT'L L. STUD. 110 (2002).

[533] Yoram Dinstein, *Legitimate Military Objectives Under the Current Jus In Bello*, 78 U.S. NAVAL WAR COLLEGE INT'L L. STUD. 139, 145 (2002) (Dinstein, like all authors published in this series, was speaking for himself, not on behalf of the U.S. Naval War College). Dinstein points out that the AP 52(2) definition of military objective is contained verbatim in Protocols II and III, Annexed to the 1980 Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to be Excessively Injurious or to Have Indiscriminate Effects [hereinafter 1980 Conventional Weapons Convention] and the 1999 Second Protocol to the Hague Cultural Property Convention. *Id.* at 141. While the United States is a party to the 1980 Conventional Weapons Convention, the definitions of military objective in the protocols are limited to those protocols. Prohibitions or Restrictions on the Use of Mines, Booby-traps and Other Devices (Protocol II), 1994 U.S.T. LEXIS 225 (May 24, 1999); Prohibitions or Restrictions on the Use of Incendiary Weapons (Protocol III), 1981 U.S.T. LEXIS 311 (May 14, 1981). The United States is not a party to the 1999 Second Protocol to the Hague Cultural Property Convention. *Second Protocol to the Hague Convention of 1954 for the Protection of Cultural Property in the Event of Armed Conflict 1999*, U.N. EDUCATIONAL, SCIENTIFIC AND CULTURAL ORGANIZATION (UNESCO) CONVENTIONS DATABASE (Mar. 26, 1999), http://www.unesco.org/eri/la/convention.asp?KO=15207&language=E&order=alpha.

contribution to military action."[534] He found the United States was acting based on questionable guidance, citing the 1997 *U.S. Commander's Handbook on the Law of Naval Operations*, which substituted "military action" with "war-fighting or war-sustaining capability."[535] While "handbooks" are not official U.S. policy, they reflect the military services' understanding of rules and are used by military members for guidance when conducting operations. The authority cited by the Handbook's annotated supplement was the destruction of cotton during the U.S. Civil

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[534] Dinstein, *Legitimate Military Objectives Under the Current Jus In Bello*, *supra* note 533, at 145 (quoting AP I, art. 52(2)).

[535] *Id.* The guidance stated:

> Proper economic targets for naval attack include enemy lines of communication, rail yards, bridges, rolling stock, barges, lighters, industrial installations producing war-fighting products, and power generation plants. Economic targets of the enemy that indirectly but effectively support and sustain the enemy's war-fighting capability may also be attacked.

U.S. NAVAL WAR COLLEGE ANNOTATED SUPPLEMENT TO THE COMMANDER'S HANDBOOK ON THE LAW OF NAVAL OPERATIONS ¶ 8.1.1 (A.R. Thomas & James Duncan, eds., 1999). The same guidance was found in the 1989 version of the handbook. U.S. DEP'T OF NAVY, NAVAL WARFARE PUB. 9 (REV. A)/FLEET MARINE FORCE MANUAL 1-10, ANNOTATED SUPPLEMENT TO THE COMMANDER'S HANDBOOK ON THE LAW OF NAVAL OPERATIONS para. 8-1.1 (5 Oct. 1989). The 2007 COMMANDER'S HANDBOOK states:

> Proper objects of attack also include enemy lines of communication, rail yards, bridges, rolling stock, barges, lighters, industrial installations producing war-fighting products, and power generation plants. Economic objects of the enemy that indirectly but effectively support and sustain the enemy's war-fighting capability may also be attacked.

U.S. DEP'T OF NAVY, NAVAL WARFARE PUB. 1-14M, THE COMMANDER'S HANDBOOK ON THE LAW OF NAVAL OPERATIONS para. 8.2.5 (July 2007) [hereinafter NWP 1-14M].

Even before Operation ALLIED FORCE, Rear Admiral (ret.) Horace B. Robertson, former Judge Advocate General of the Navy, cautioned that the U.S. NWP 1-14M had a broader definition of military objectives than that found in AP I, and emphasized that the U.S. Navy's approach was rejected by the drafters of the SAN REMO MANUAL ON INTERNATIONAL LAW APPLICABLE TO ARMED CONFLICTS AT SEA. Horace Robertson, *The Principle of the Military Objective in the Law of Armed Conflict*, 8 U.S. AIR FORCE ACAD. J. LEGAL STUD. 35-70 (1997). The *San Remo Manual* authors feared that the U.S. language could "too easily be interpreted to justify unleashing the type of indiscriminate attacks that annihilated entire cities during [the Second World War]." *Id.* (quoting Louise Doswald-Beck, *The San Remo Manual on International Law Applicable to Armed Conflicts at Sea*, 89 AM. J. INT'L L. 192, 199 (1995)).

War to deprive the Confederacy of revenue.[536] Dinstein concluded, "The connection between military action and exports, required to finance the war effort, is 'too remote.'"[537] To Dinstein, the U.S. Navy's interpretation of the AP I standard was not textual.

On the other hand, an Air Force Judge Advocate, Captain Burrus Carnahan, presented a different perspective decades earlier—while AP I was in draft form. Carnahan emphasized that the definition of a military objective was broad, consisting of the contribution it made to an enemy, the attacker's advantage in destroying it, and the circumstances existing at the time.[538] Confederate cotton was the ultimate source of almost all of the Confederate weapons and military supplies. "Thus, it made an effective contribution to military action, and its destruction offered a definite military advantage to the Union 'in the circumstances ruling at the time.'"[539] Carnahan also pointed out that a post-Civil War Anglo-American arbitration tribunal concluded that the destruction of British-owned cotton was lawful.[540] Carnahan, however, conceded that this well-established nineteenth century legal precedent appears to have faded after the adoption of the Hague Regulations.[541] After analyzing those rules, he concluded that the Hague Regulations did not change the law:

> It is still permissible to destroy property of military value, with such prior warning of bombardment as is practical under the circumstances. Noncombatant persons and property may lawfully be incidentally harmed during the course of the bombing if the harm is proportional to the military advantage.[542]

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[536] Dinstein, *Legitimate Military Objectives Under the Current Jus In Bello*, *supra* note 533, at 145 (citing *The Law of Targeting*, 73 U.S. NAVAL WAR COLLEGE INT'L L. STUD. 403 n.11 (A.R. Thomas & J.C. Duncan eds., 1999)).

[537] *Id.* at 146. *See also* YORAM DINSTEIN, THE CONDUCT OF HOSTILITIES UNDER THE LAW OF INTERNATIONAL ARMED CONFLICT 95–96 (2d. ed. 2010).

[538] Burrus Carnahan, *Protecting Civilians Under the Draft Geneva Protocol: A Preliminary Inquiry*, 18 AIR FORCE L. REV. 32, 47 (1976).

[539] *Id*. at 47-48.

[540] *Id*. at 48; Burrus Carnahan, *The Law of Air Bombardment in Its Historical Context*, 17 AIR FORCE L. REV. 39, 42 (1975).

[541] Carnahan, *The Law of Air Bombardment in Its Historical Context*, *supra* note 540, at 42.

[542] *Id*. (citing 1956 FM 27-10, *supra* note 291, ¶40 (defining "defended places") and ¶43c (explaining warning requirements). Paragraph 40 of was updated in 1976 to add the prohibition on attacking civilian populations. 1976 FM 27-10, *supra* note 458.

Carnahan's position was repeated in the highly influential analysis of AP I by international experts Michael Bothe, Karl Partsch, and Waldemar Solf.[543] It was also restated in a 1980 U.*S. Air Force Commander's Handbook on the Law of Armed Conflict*,[544] as well as the aforementioned *Naval Commander's Handbooks*.[545]

Over time, Dinstein's argument has been influential in Western academic circles. Professor Michael Schmitt of the Naval War College analyzed a hypothetical adversary oil-export facility as a potential target based on the revenue it generated for the adversary state. He concluded, "attacking oil facilities dedicated solely to export production in order to deprive the military of funding stretches the definition [of AP I Article 52(2)] beyond its intended reach."[546] Other international experts agreed.[547]

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[543] BOTHE ET AL., *supra* note 225, at 366 n. 15. Michael Bothe was Professor of Public Law at the Johann Wolfgang Goethe University in Frankfurt, Germany, and former Chair, International Humanitarian Fact-finding Commission; Karl Josef Partsch was Professor at the Universities of Kiel, Mainz and Bonn, Federal Republic of Germany and a member of the International Committee for the Elimination of Racial Discrimination at United Nations Headquarters; Waldemar Solf was Chief International Affairs Division, Office of the Judge Advocate General of the US Army, and Professor of Law at the Washington College of Law, American University, Washington, D.C.

[544] U.S. DEP'T OF AIR FORCE, AIR FORCE PAMPHLET 110-34, COMMANDER'S HANDBOOK ON THE LAW OF ARMED CONFLICT ¶ 2-3a (25 July 1980).

[545] *See* U.S. DEP'T OF NAVY, NAVAL WARFARE PUB. 9 (REV. A)/FLEET MARINE FORCE MANUAL 1-10, ANNOTATED SUPPLEMENT TO THE COMMANDER'S HANDBOOK ON THE LAW OF NAVAL OPERATIONS, *supra* note 535; U.S. NAVAL WAR COLLEGE ANNOTATED SUPPLEMENT TO THE COMMANDER'S HANDBOOK ON THE LAW OF NAVAL OPERATIONS, *supra* note 544; NWP 1-14M, *supra* note 535.

[546] Michael Schmitt, *Fault Lines in the Law of Attack*, *in* TESTING THE BOUNDARIES OF INTERNATIONAL HUMANITARIAN LAW 281 (Susan Breau & Agnieszka Jachec-Neale, eds., 2006). *See also* Beth Van Schaack, *Targeting Tankers Under the Law of War (Part 1)*, JUST SECURITY (Dec. 2, 2015, 12:50 PM), https://www.justsecurity.org/28064/targeting-tankers-law-war-part-1/ (characterizing oil as a military objective only when it has a designated military use). Dinstein analyzed oil infrastructure not related to military production and concluded that despite the civilian nature, every oil installation, except for neighborhood filling stations, can be deemed as part of the military industry and represent legitimate targets. Dinstein, *Legitimate Military Objectives Under the Current Jus In Bello*, *supra* note 533, at 155. Oil presumably has this quality because it can always be repurposed for military use.

[547] WILLIAM BOOTHBY, THE LAW OF TARGETING 106 (2012); Kenneth Watkin, *Targeting "Islamic State" Oil Facilities*, 90 U.S. NAVAL WAR COLLEGE INT'L L. STUD. 499, 504 (2014) *citing* Program on Humanitarian Policy and Conflict Research, HPCR MANUAL ON INTERNATIONAL LAW APPLICABLE TO AIR AND MISSILE WARFARE Rule 24, Commentary ¶ 2 (2013); ROGERS, *supra* note 476, at 109–10. *See also* TALLINN MANUAL ON THE INTERNATIONAL LAW APPLICABLE TO CYBER WARFARE 130–31 (Michael Schmitt, ed.,

Oxford University's Janina Dill pointed out that the "war-sustaining" logic would authorize direct strikes on general business activities, the civilian political system, and general morale.[548] As a practical matter, defining such broad "war-sustaining" entities as military objectives means that it would be nearly impossible for belligerents to comply with their obligation to separate civilian objects from military, which is the defender's duty under the law-of-war principle of distinction.[549] Similarly, Ken Watkin, a former Judge Advocate General for the Canadian military, expressed concern over the scope of potential damage: "whether the potential for the broad range of targets that can be attacked as contributing to the 'military action' outside the war sustaining debate has been sufficiently restricted so as to avoid the broad based destruction that can result from the conduct of a total war."[550]

Despite the criticism, U.S. authorities reiterated the Navy's expansive interpretation of "military action." Hays Parks, writing from the U.S. Department of Defense Office of the General Counsel in 2007, reaffirmed the position that belligerents may legitimately attack their adversary's ability to sustain a conflict without limitation to "war-fighting" capabilities; that the U.S. Civil War practice of targeting Confederate cotton would still be legitimate; and that oil can be targeted because of its commercial value apart from its direct military contributions.[551] Similarly, New York University Law Professor Ryan Goodman agreed with Parks and the U.S. position, explaining how AP I states have used militaries to attack and deprive enemies of revenue.[552] The Military Commission Act of 2009 used the AP I Article 52(2) definition of military objective, while substituting "military action" with the words "war-fighting or war-sustaining capability."[553] In 2016, U.S. State Department and Department

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2013).

548 Janina Dill, *The 21st-Century Belligerent's Trilemma*, 26 EUROPEAN J. INT'L L. 1, 95 (2015).

549 LAW OF WAR MANUAL, supra note 19, ¶ 2.5.3; AP I, art. 58. The United States agrees in principle with AP I, art. 58. Matheson, *supra* note 404, at 427.

550 Kenneth Watkin, *Targeting in Air Warfare*, 44 ISR. Y.B. HUM. RIGHTS 1, 39 (2014).

551 Parks, *Asymmetries and the Identification of Legitimate Military Objectives*, *supra* note 476, at 100–01.

552 Ryan Goodman, *Targeting 'War-Sustaining' Objects in Non-International Armed Conflict*, 110 AM. J. INT'L L. (forthcoming 2017) http://ssrn.com/abstract=2783736. At the time of writing, Professor Goodman was Special Counsel to the General Counsel of the Department of Defense, but wrote in his personal capacity.

553 Military Commission Act of 2009, Pub. L. No. 111-84, § 950p(a)(1), 123 Stat. 2190 (codified at 10 U.S.C 47A (2006)) *cited in* Watkin, *supra* note 547, at 503.

of Defense legal advisers concurred in the lawfulness of attacks on objects making an effective contribution to the enemy's war-fighting or war-sustaining capabilities.[554] The *2015 DoD Law of War Manual* further supports the Navy's position on the legitimacy of destroying war sustaining property, using the U.S. Civil War cotton destruction as a legitimate means of depriving an adversary of funding.[555] The manual also lists "economic objects associated with military operations" as military objectives.[556] The manual's examples, electrical power and oil, however, are less informative because they serve or have the strong potential to serve direct military purposes: modern air defenses use the power grid and military vehicles use oil.

Although the United States finds war-sustaining objects to be legitimate objects for attack, the DoD General Counsel Jennifer O'Connor recently explained that they could not be categorially targeted based on their nature alone.[557] Every potential target requires an evaluation to determine whether it qualifies as a military objective.[558] The object must have a connection to its military action, where "each additional link in a causal chain between an object and its contribution to military action will generally make the military advantage to be gained from its destruction less certain, and more remote, and therefore less likely to qualify as

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[554] Egan, *supra* note 478, at 242. Jennifer O'Connor, *Applying the Law of Targeting to the Modern Battlefield*, speech at New York University, Nov. 28, 2016, https://www.defense.gov/Portals/1/Documents/pubs/Applying-the-Law-of-Targeting-to-the-Modern-Battlefield.pdf.

[555] LAW OF WAR MANUAL, *supra* note 19, ¶ 5.17.2.3.

[556] *Id.* ¶¶ 5.6.6.2 n.174 & 5.6.8. The manual also cites a 1999 DoD General Counsel Opinion as an authority on cyber issues. Although not restated in the 2015 manual, the 1999 opinion explains that purely economic objects would not likely be lawful targets in a short conflict, but may be in long ones: "In a long and protracted conflict, damage to the enemy's economy and research and development capabilities may well undermine its war effort, but in a short and limited conflict it may be hard to articulate any expected military advantage from attacking economic targets." U.S. DEP'T OF DEF., OFFICE OF GENERAL COUNSEL, AN ASSESSMENT OF INTERNATIONAL LEGAL ISSUES IN INFORMATION OPERATIONS 8 (May 1999), http://www.au.af.mil/au/awc/awcgate/dod-io-legal/dod-io-legal.pdf.

[557] O'Connor, *supra* note 554, at 9. O'Connor's remarks were endorsed by a report signed by President Obama. THE WHITE HOUSE, REPORT ON THE LEGAL AND POLICY FRAMEWORKS GUIDING THE UNITED STATES' USE OF MILITARY FORCE AND RELATED NATIONAL SECURITY OPERATIONS, Dec. 2016, https://www.whitehouse.gov/sites/whitehouse.gov/files/documents/Legal_Policy_Report. pdf [hereinafter Legal Policy Report].

[558] O'Connor, *supra* note 554, at 9.

'definite.'"[559] Adversary control, as opposed to civilian control, over an entity is another significant consideration.[560] The requirement for these strong connections rules out striking objects merely because they contribute to an enemy's general tax base. Requiring a causal connection also helps ensure that appropriate facts are gathered in advance of strikes to ensure commanders can account for their decisions.[561] It provides a basis for the proportionality analysis, which requires an understanding of concrete and direct military advantages. The nature of the proportionality analysis itself, however, remains vague. Goodman suggests that the proportionality analysis go beyond weighing considerations of death and injury to civilians or incidental damage to civilian objects against concrete and direct military advantages; the analysis should "include the percentage of funds distributed to nonmilitary purposes (such as running civilian hospitals, schools, etc.)."[562] Furthermore, some commentators interpreted O'Connor's remarks as requiring the war- sustaining object to be unique or irreplaceable before it could be considered to provide a definite military advantage.[563]

Russia may have inadvertently weighed in on this debate. Russian news recently broadcast designs for a "drone" submarine capable of launching nuclear weapons.[564] The effects of the submarine were listed as defeating "important economic objects of an enemy in coastal zones, [and] bringing guaranteed and unacceptable losses on the country's territory by forming a wide area of radioactive contamination incompatible with

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[559] *Id.* The requirement for a causal connection appears to follow the recommendations of Professor Goodman. Goodman, *supra* note 552, at 17. It does not, however, fully incorporate his idea for a limiting principle where "the economic product constitutes an *indispensable* and *principal* source for directly maintaining military action." Goodman, *supra* note 552, at 18.

[560] O'Connor, *supra* note 554, at 10.

[561] Kenneth Watkin, *Reflections on Targeting: Looking in the Mirror*, JUST SECURITY (June 16, 2016, 12:59 PM), https://www.justsecurity.org/31513/reflections-targeting-mirror/; Watkin, *Targeting "Islamic State" Oil Facilities*, *supra* note 547, at 512.

[562] Goodman, *supra* note 552, at 18 (citing General Counsel, Department of Defense, letter of Sept. 22, 1972, *reprinted in* 67 AM. J. INT'L L. 123-24 (1973)).

[563] Oona Hathaway, Marty Lederman & Michael Schmitt, *Two Lingering Concerns About the Forthcoming Law of War Manual Amendments*, JUST SECURITY (Nov. 30, 2016, 8:28 AM), https://www.justsecurity.org/35025/lingering-concerns-forthcoming-law-war-manual-amendments/. O'Connor remarked that Islamic State oil has been targeted, in part, because it creates cash used for military purposes and it provided a revenue source not easily substituted. O'Connor, *supra* note 554.

[564] Andrew Kramer, *Russia Says Leak of Secret Nuclear Weapon Design Was an Accident*, INT'L N.Y. TIMES (Nov. 12, 2015), http://nyti.ms/1OGxrDf.

conducting military, economic or any other activities there for a long period of time."[565] Russia's apparent willingness to broadly target economic objects serves as a reminder that interpretations of the law of war will ultimately be decided by national *opinio juris* and its state practice component. It should also serve as a warning about overreliance on technical legal rules for protection. Although the law of war seeks to maximize humanitarian protection, its credibility requires recognition of battlefield realities and necessities.[566] Such recognition is as important in the strategic environment as it is in the technical environment.

XII. The Rome Statute of the International Criminal Court

In 1998, a United Nations conference finalized the treaty known as the Rome Statute of the International Criminal Court (ICC), referred to as the "Rome Statute."[567] It is relevant to the law relating to nuclear weapons insomuch as it purports to have universal jurisdiction and establishes a standards for war crimes and proportionality.

The Rome Statute established the first permanent international court with jurisdiction to prosecute individuals for "the most serious crimes of concern to the international community."[568] The ICC asserts jurisdiction over citizens of states that are not parties to the Rome Statute, which the U.S. views as unchecked power and a threat to state sovereignty.[569] The U.S. is not a party to the Rome Statute.[570]

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[565] *Id*.

[566] Geoffrey Corn, et al., *Belligerent Targeting and the Invalidity of the Least Harmful Means Rule*, 89 INT'L L. STUD. 536, 542 (2013).

[567] United Nations Diplomatic Conference of Plenipotentiaries on the Establishment of an International Criminal Court, Rome, Italy, June 15-July 17, 1998, Rome Statute of the International Criminal Court, U.N. Doc. A/CONF.183/9 (July 17, 1998), 37 I.L.M. 999 (1998) [hereinafter Rome Statute].

[568] *Id*. preamble.

[569] *Id*. arts. 12-13.

[570] The United States initially supported the underlying concept for the ICC, participated in the drafting conference, but ultimately voted against the treaty language. EMILY BARBOUR & MATTHEW WEED, CONG. RESEARCH SERV. R41116, THE INTERNATIONAL CRIMINAL COURT (ICC): JURISDICTION, EXTRADITION, AND U.S. POLICY, 2 (2010). President Clinton signed the treaty on December 31, 2000, but simultaneously recommended that it not be submitted for ratification due to concerns over jurisdictional flaws. William J. Clinton, 37 WEEKLY COMPILATION OF PRESIDENTIAL DOCUMENTS 1 (Jan. 8, 2001) https://www.gpo.gov/fdsys/pkg/WCPD-2001-01-08/pdf/WCPD-2001-01-08-Pg4.pdf. The United States subsequently notified the U.N. that it did not intend to become

The Rome Statute is highly relevant to international law and through later-adopted elements of crimes, established specific criteria for war crimes. It contains provisions and omissions applicable to the potential use of nuclear weapons. The drafting committee considered provisions to criminalize the use of nuclear weapons, but these measures were ultimately rejected.[571] Instead, the weapons provisions were in keeping with prior treaty obligations and international law. The provisions criminalize the use of poison or poisoned weapons;[572] "asphyxiating, poisonous or other gases, and all analogous liquids, materials or devices;"[573] expanding bullets,[574] and:

> [W]eapons, projectiles and material and methods of warfare which are of a nature to cause superfluous injury or unnecessary suffering or which are inherently indiscriminate in violation of the international law of armed conflict, provided that such weapons, projectiles and material and methods of warfare are the subject of a comprehensive prohibition and are included in an annex to this Statute, by an amendment . . . .[575]

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a party to the Rome Statute and therefore had no legal obligations from President Clinton's signature. Letter from John Bolton, Under Secretary of State for Arms Control and International Security, to U.N. Secretary General Kofi Annan, May 6, 2002, *reprinted in* DIGEST OF UNITED STATES PRACTICE OF INTERNATIONAL LAW 2002 148-156. The United States also took several measures to prevent the ICC from exercising jurisdiction over its citizens, to include passing of the American Servicemembers' Protection Act of 2002, 22 U.S.C. §§ 7421-7433; concluding bilateral immunity agreements; and obtaining a U.N. Security Council resolutions deferring potential prosecution of U.S. personnel during peacekeeping operations in Bosnia and Herzegovina through 2004. BARBOUR & WEED, *supra* 570, at 3-4.

[571] Philippe Kirsch & John T. Holmes, *The Rome Conference on an International Criminal Court: The Negotiating Process*, 93 AM. J. INT'L. L. 2, 7-8 (1999). Various drafts of nuclear weapon prohibitions can be found in 3 UNITED NATIONS DIPLOMATIC CONFERENCE OF PLENIPOTENTIARIES ON THE ESTABLISHMENT OF AN INTERNATIONAL CRIMINAL COURT OFFICIAL RECORDS, ROME, 15 JUNE –17 JULY 1998, 18, 206, 242, 243, 250.

[572] Rome Statute, *supra* note 567, art. 8(2)(b) (xvii). *C.f.* Hague II and Hague IV, art. 23(a), *supra* note 54, at 235.

[573] Rome Statute, *supra* note 567, art. 8(2)(b)(xviii). *C.f.* 1899 Hague Declaration on Asphyxiating Gases, July 29, 1899, *reprinted in* SCHINDLER & TOMAN, *supra* note 53, at 95, and the Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, 26 U.S.T. 571, June 17, 1925.

[574] Rome Statute, *supra* note 567, art. 8(2)(b)(xix). *C.f.* 1899 Hague Declaration Concerning Expanding Bullets, July 29, 1899 *reprinted in* SCHINDLER & TOMAN, *supra* note 53, at 99.

[575] Rome Statute, *supra* note 567, art. 8(2)(b)(xx). *C.f.* AP I, *supra* note 449, art. 35(2).

No annex to the treaty exists. Thus, the use of nuclear weapons would only become unlawful *per se* once they became the "subject of a comprehensive prohibition."

Although the Rome Statute did not outlaw nuclear weapon use *per se*, it reinforces the overall law-of-war requirements to limit attacks to proportionate strikes against legitimate military objectives. Intentional attacks against civilian populations were specifically criminalized.[576] The language from article 25 of the 1907 Hague Regulation was also brought into the Rome Statute's framework, with a prohibition against "[a]ttacking or bombarding, by whatever means, towns, villages, dwellings or buildings which are undefended and which are not military objectives."[577] Perhaps most relevant to the potential use of nuclear weapons, the Rome Statute made intentionally disproportionate attacks war crimes:

> Intentionally launching an attack in the knowledge that such attack will cause incidental loss of life or injury to civilians or damage to civilian objects or widespread, long-term and severe damage to the natural environment which would be clearly excessive in relation to the concrete and direct overall military advantage anticipated[.][578]

This provision expands the proportionality analysis beyond weighing the anticipated advantage from an attack against possible civilian casualties and damage to their property—environmental damage is factored into the equation.[579] While proportionality remains fundamentally subjective, the Statute's standard requires both intent and "clearly excessive" damage. Nuclear weapons will cause significant damage by their nature. The Rome Statute's disproportionate attack

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[576] Rome Statute, *supra* note 567, art. 8(2)(b)(i).
[577] *Id*. art. 8(2)(b)(v)
[578] *Id*. art. 8(2)(b)(iv).
[579] The United States has not recognized as customary international law the environmental damage provisions previously found in AP I art. 35(3) or art. 55. Matheson, *supra* note 404, at 424; John Bellinger, III and William J. Haynes II, *A US government response to the International Committee of the Red Cross study Customary International Humanitarian Law*, 89 INT'L REV. OF THE RED CROSS 443, 455-56 (June 2007). Mr. Matheson, however, conceded that "the means and methods of warfare that have such a severe effect on the natural environment so as to endanger the civilian population may be inconsistent with the other general principles, such as the rule of proportionality." Matheson, *supra* note 404, at 436.

offense should give decision makers incentive to carefully select nuclear targets and tailored weapon effects to maximum degree necessary to achieve the military objective.

Another critical concern with the Rome Statute is a complete omission of the doctrine of belligerent reprisals. The Statute lists ground for excluding criminal responsibility such as mental disease or defect, intoxication, duress, and reasonable self-defense.[580] Reprisals are not on this list, but historically have been omitted from treaty discussions due to their contentious nature.[581] When AP I prohibited reprisals, the United States considered it to be one of that treaty's major flaws and not reflective of customary international law.[582] Other nations, like the United Kingdom, France, Germany, Italy, and Egypt, became parties to AP I while reserving the right to take reprisals.[583] The Rome Statute's omission of discussion relating to reprisals does not eliminate this doctrine, which is relied upon by States to compel adversaries to cease violating the law of war.[584]

XIII. Nuclear Tranformation: The Bush 43 Years

Nuclear weapon targeting law did not significantly change during the administration of President George W. Bush. This period was marked by a new strategy, deemphasizing nuclear capabilities, and a failed attempt to modernize nuclear weapons.

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[580] Rome Statute, *supra* note 576, art. 31.
[581] *See supra* Section II.B.
[582] Burrus Carnahan, *Remarks in Session One: The United States Position on the Relation of Customary International Law to the 1977 Protocols Additional to the 1949 Geneva Convention*, 2 AM. U. J. INT'L L. & POL'Y 419, 506-07 (1987). Even if AP I's prohibitions against reprisals were generally accepted as customary international law, those prohibitions would not apply to nuclear weapons. 1995 U.S. Statement to ICJ, *supra* note 513, at 25.
[583] Michael Newton, *Reconsidering Reprisals*, 20 DUKE J. COMP. & INT'L L. 361, 378-79 (2010).
[584] *Id*. at 379-80 (2010).

A. U.S. Policy Developments: The New Triad

Like Clinton, President Bush began his administration with a Nuclear Posture Review. Based on this review, Russia was no longer considered a primary threat, while remaining known and unknown potential threats needed to be addressed through a "capabilities based approach."[585] First, the administration established a "New Triad." The term "triad" previously referred to nuclear strike capabilities: submarines, bombers, and land-based missiles. Secretary of Defense Donald Rumsfeld announced the composition of the "New Triad" in the publicly released Foreword to the 2002 Nuclear Posture Review Report. It was composed of: (1) "Offensive strike systems (both nuclear and non-nuclear);" (2) "Defenses (both active and passive);" and (3) "A revitalized defense infrastructure[.]"[586] The new system would need improved command, control, intelligence and planning to work.[587] Basically, U.S. strategic defense would have a nuclear component, but nuclear weapons would not be its sole emphasis.

B. U.S. Nuclear Modernization Controversy

Because of WMD proliferation, Rumsfeld also argued that different nuclear weapons were needed: instead of large warheads with moderately accurate delivery vehicles, the United States needed weapons with lower yields, greater accuracy, and the ability to penetrate hardened and deeply buried structures.[588] New nuclear weapons could also have tailored effects, such as the ability to neutralize chemical and biological agents.[589] These new nuclear weapons were viewed as more likely to deter rogue state adversaries.[590] Since deterrence required the ability to destroy an adversary's high value assets, those adversaries needed to know the U.S. had the capability and will to do so when necessary.[591] Secretary Rumsfeld pointed out that seventy countries were pursuing underground activities.[592] He told Congress,

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585 Donald Rumsfeld, Foreword to the Nuclear Posture Review Report, http://imi-online.de/download/Nuclear_Posture_Review.pdf; Bernstein, *supra* note 498, at 87.
586 Rumsfeld, *supra* note 585, at 1.
587 *Id*.
588 Bernstein, *supra* note 492, at 87.
589 Robert Monroe, *New Threats, Old Weapons*, WASH. POST, Nov. 16, 2004, at A25.
590 *Id*.; Bernstein, *supra* note 492, at 87.
591 Monroe, *supra* note 589, at A25.
592 Testimony of Donald Rumsfeld, Secretary of Defense, U.S. Senate Subcommittee of

> At the present time, we don't have a capability of dealing with that. We can't go in there and get at things in solid rock underground.
>
> The proposal—the only thing we have is very large, very dirty, big nuclear weapons. So the choice is not do we have—do we want to have nothing and only a large dirty nuclear weapon or would we rather have something in between?[593]

The proposed "nuclear transformation" of the weapons proved to be controversial based on practical and policy arguments. One of the principle arguments against the proposed weapons was found in the physics problems with nuclear bunker busters. The *Washington Post* reported:

> [N]o nuclear weapon could go deep enough without destroying itself or creating enormous fallout. As Sidney Drell, the nuclear physicist. . . . wrote, 50 feet is about as deep as a bomb or missile warhead could dig itself. To be effective, it would take more than 100 kilotons to reach a target 1,000 feet down. That size weapon would create a much larger crater than Ground Zero at the World Trade Center and create a large amount of dangerous radioactive debris.[594]

Although this criticism applied to existing technology, Rumsfeld pointed out that the theoretical nuclear "bunker buster" needed to be studied.[595] Critics also focused on the fact that employment of new nuclear weapons would still have the potential to cause considerable casualties.[596]

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the Committee on Appropriations, Wed. 27, 2005, at 41 https://www.gpo.gov/fdsys/pkg/CHRG-109shrg39104153/pdf/CHRG- 109shrg39104153.pdf ;

[593] *Id*. at 41.

[594] Walter Pincus, *Future of the U.S. Nuclear Arsenal Debated; Arms Control Experts Worry Pentagon's Restructuring Plan Means More Weapons*, WASH. POST, May 4, 2003, at A06.

[595] Testimony of Donald Rumsfeld, *supra* note 592 at 41.

[596] Ann Scott Tyson, *'Bunker Buster' Casualty Risk Cited*, WASH. POST, Apr. 28, 2005, at A07.

Rumsfeld countered that casualties would be reduced when compared to existing weapons.[597]

Other criticism of the proposed new generation of weapons focused on policy concerns. Some emphasized the lack of threats to the United States, accusing the Bush administration of trying to indefinitely preserve the "nuclear security establishment's . . . nuclear weapon design capability at the national laboratories."[598] Other critics feared that the smaller, lower-yield weapons would be more likely to be used.[599] They also argued that development of nuclear "bunker busters" would require resumption of nuclear testing, which was suspended in 1992.[600] Furthermore, some argued that it was hypocritical for the U.S. to develop a new generation of nuclear weapons while discouraging other countries from developing their own.[601]

Congress ultimately opposed developing the new weapons.[602] Senator Edward "Ted" Kennedy stated that the new nuclear weapons would raise doubt about the U.S. commitment to refrain from using nuclear weapons against non-nuclear nations.[603] He also agreed with arguments finding the proposed nuclear bunker buster to be more usable, and went so far as to declare, "If we build it, we will use it[.]"[604] Senator Richard "Dick" Durbin explained that the new weapon development program would likely lead to a resumption of the Cold War arms race.[605] Senator Dianne Feinstein expressed concerns over these initiatives expanding nuclear proliferation, rather than controlling it.[606] Representative David Hobson

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[597] Testimony of Donald Rumsfeld, *supra* note 592, at 69.

[598] Bruce Blair, *We Keep Building Nukes For All the Wrong Reasons*, WASH. POST, May 25, 2003, at B01.

[599] Andrew Krepinevich, *The Real Problems with Our Nuclear Posture*, N.Y. TIMES, Mar. 14, 2002, at A31.

[600] James Dao, *Study Raises Fears About Weapons*, N.Y. TIMES, Nov. 17, 2002, at A22. Research and development of nuclear weapons under five kilotons had been prohibited in the 1994 National Defense Authorization Act. P.L. 103-160 § 3136. That restriction was repealed by the 2004 National Defense Authorization Act and replaced with a prohibition on testing, acquiring, or deploying low-yield nuclear weapons. P.L. 108-136 § 3116.

[601] *Id*.

[602] Bernstein, *supra* note 492, at 88.

[603] Pincus, *supra* note 594, at A06.

[604] Helen Dewar, *GOP Blocks Democrats' Effort to Halt Nuclear Arms Studies*, WASH. POST, May 21, 2003, at A04.

[605] *Id*.

[606] Carl Hulse, *House Retreats From Bush's Nuclear Plan*, N.Y. TIMES, July 15, 2003, at A18.

also found the new weapons proposal to be provocative.[607] The Bush administration's efforts to transform the nuclear stockpile did not advance.

Due to the proliferation of threats, however, the planning for nuclear conflict was forced to evolve. The military's single integrated operational plan for nuclear war was no longer viable in the new global environment and was transformed into a family of plans where employment options could vary as needed.[608]

XIV. The Prague Agenda: The Obama Years

The Obama administration articulated that the principles of the law of war applicable to nuclear weapons, emphasizing the role of law in their potential employment, while simultaneously stressing both arms control and deterrence. The administration continued to pursue modernization to make weapons more compliant with legal requirements.

A. U.S. Policy Developments

Early in his Presidency, Barack Obama made a speech in Prague, Czech Republic, where he outlined priorities to strengthen nonproliferation and advocate for further arms control negotiations as steps toward a world ultimately free of nuclear weapons.[609] The Obama administration's approach to promoting that agenda was outlined in a 2010 Nuclear Posture Review Report. The review called for stable relations with existing nuclear powers, emphasizing "Russia and the United States are no longer adversaries, and prospects for military confrontation have declined dramatically."[610] It acknowledged that nuclear weapons existed for deterring aggression, but declared they would have a reduced role in deterring non-nuclear attacks. The review refrained from an absolute "no-first use" declaration in favor of stressing use only under "extreme circumstances to defend the vital interests of the United States or its allies

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[607] Matthew Wald, *Nuclear Weapons Money Is Cut From Spending Bill*, N.Y. TIMES, Nov. 23, 2004, at A22.
[608] Bernstein, *supra* note 492, at 88.
[609] *Id*. at 89.
[610] U.S. Dep't of Defense, Nuclear Posture Review Report, April 2010 at iv.

and partners."[611] Furthermore, the review stated that the United States would "not use or threaten to use nuclear weapons against non-nuclear weapons states that are party to the NPT and in compliance with their nuclear non-proliferation obligations."[612] Finally, the review rejected new nuclear warheads and new capabilities for existing weapons.[613]

In response to a Congressional mandate, the Obama Administration released a public Nuclear Employment Strategy document in 2013. The strategy, signed by Defense Secretary Chuck Hagel, repeated the themes of the 2010 Nuclear Posture Review: Russia was no longer an adversary; deterrence was the fundamental role of U.S. nuclear weapons; those weapons would only be used in extreme circumstances to defend vital interests; and nuclear weapons would not be used against non-nuclear NPT states complying with their obligations. [614] With regard to targeting, the emphasis was on maintaining counterforce capabilities. The announced policy disfavored reliance on a "countervalue" or "minimum deterrence" strategy.[615] It did not define these terms, nor did it state that eliminating reliance on counter-value targeting reflected any legal limitations. The direction within the document required all war plans to be consistent with the fundamental principles of the law of war and "apply the principles of distinction and proportionality and seek to minimize collateral damage to civilian populations and civilian objects. The United States will not intentionally target civilian populations or civilian objects."[616]

In 2015, the Obama administration oversaw testing of a smaller, more accurate, modernized version of an existing nuclear bomb.[617] According to reports, the administration believed this modernization would allow for a smaller overall U.S. nuclear arsenal.[618] The administration also

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[611] *Id*. at viii-ix.
[612] *Id*. at viii.
[613] *Id*. at xiv.
[614] U.S. DEP'T OF DEF., REPORT ON NUCLEAR EMPLOYMENT STRATEGY OF THE UNITED STATES SPECIFIED IN SECTION 491 OF 10 U.S.C. at 3-4 (19 June 2013).
[615] *Id*. at 4-5.
[616] *Id*.
[617] William J. Broad & David E. Sanger, *As U.S. Modernizes Nuclear Weapons, 'Smaller' Leaves Some Uneasy*, N.Y. TIMES, Jan. 11, 2016, at A1. The new bomb has a "dial-a-yield" capability whereby the blast can be lowered to 2% of the Hiroshima bomb. *Id.* Variable yield nuclear warheads allowing tailored efforts have existed in the U.S. arsenal since at least 1962. James Gibson, *History of the Army's Nuclear Capable Rocket Program*, FIELD ARTILLERY, Aug. 1987 at 23.
[618] Broad & Sanger, *supra* note 617, at A1.

recognized concerns that smaller more accurate weapons would be more tempting to use, but believed the increased "usability" made them a more credible threat and would increase the deterrent value of the weapons.[619] James Miller, the Under Secretary of Defense for Policy who helped develop the modernization plan, explained that the modernized weapon addressed proportionality concerns with nuclear weapons by reducing the risks for civilians living near military targets: "Minimizing civilian casualties if deterrence fails is both a more credible and a more ethical approach."[620] Such modernization efforts would also be in keeping with the administration's nuclear posture review's restriction against new nuclear warheads or new military capabilities so long as existing military technology is used to sustain capabilities.

In its final months in office, the Obama Administration issued policy guidance to "underscore its commitment to reducing civilian casualties[.]"[621] Through an executive order, the President required DoD to take feasible precautions, conduct risk assessments, and develop intelligence systems in the interest of protecting civilians."[622] These policy requirements reflected existing law and policy. The order, however, also directed that the United States acknowledge "responsibility for civilian casualties and offer condolences, including *ex gratia* payments, to civilians who are injured or to the families of civilians who are killed[.]"[623] In the context of a major war, such payments could be significant, although they are subject to rules under annual Congressional funding acts and DoD regulations.[624]

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[619] *Id*.

[620] *Id*. Meanwhile, Russia's nuclear weapon modernization included development of the Sarmat intercontinental ballistic missile, nicknamed "Satan 2." Sebastian Shukla & Laura Smith-Spark, *Russia Unveils 'Satan 2' Missile, Could Wipe Out France or Texas, Report Says*, CNN (Oct. 27, 2016, 9:43 AM) http://www.cnn.com/2016/10/26/europe/russia-nuclear-missile-satan-2/. The Russian weapon is capable of wiping out parts of the earth the size of Texas or France. *Id*.

[621] Legal Policy Report, *supra* note 557, at 26.

[622] Exec. Order No. 13,732, Sec. 2, July 1, 2016 *reprinted in* 81 Fed. Reg. 44,485 (July 7, 2016).

[623] *Id.*

[624] The annual National Defense Authorization Act (NDAA) authorizes and governs *ex gratia* "condolence" payments. *See e.g.* Pub. L. No.109-163, § 1202 (2006); Pub. L. No. 110-181 § 1205 (2008); Pub. L. No. 111-84 § 1222 (2009); Pub. L. No. 111-383 § 1212 (2011); Pub. L. No. 112-81 § 1201 (2011). *See also* U.S. DEP'T OF DEF., 7000.14-R, DoD FINANCIAL MANAGEMENT REGULATION, vol. 12, ch. 27, para. 270103, (Aug. 2008).

B. United States Military Targeting Guidance

As pointed out earlier, the distinctions between military and civilian objects are not always clear. This problem is acknowledged in Joint Publication (JP) 3-60, *Joint Targeting*, which contains the current U.S. military doctrine addressing targeting across the spectrum of possible actions, including conventional, cyberspace, information operations and nuclear targeting.[625] The publication fully adopts the AP I Article 52(2) targeting language.[626] In the explanation, JP 3-60 maintains definitional flexibility to permit the targeting of objects that sustain an adversary's war effort:

> *Purpose or use*. Purpose means the future intended or possible use, while use refers to its present function. The potential dual use of a civilian object, such as a civilian airport, also may make it a military objective because of its future intended or potential military use. The connection of some objects to an enemy's war-fighting, war-supporting, or war-sustaining effort may be direct, indirect, or even discrete. A decision as to classification of an object as a military objective and allocation of resources for its attack is dependent upon its value to an enemy states [sic.] war-supporting or war-sustaining effort (including its ability to be converted to a more direct connection), and is not solely reliant on its overt or present connection or use.[627]

The guidance appears to preclude targeting unimportant objects with its repeated emphasis on the need for a "definite military advantage,"

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[625] JOINT CHIEFS OF STAFF, JOINT PUB. 3-60, JOINT TARGETING C-7 (31 Jan. 2013) [hereinafter JP 3-60].

[626] *Id*. at A-2:

> Lawful Military Attacks. Military attacks will be directed only at military objectives. In the law of war, military objective is a treaty term: "those objects which by their nature, location, purpose, or use make an effective contribution to military action and whose partial destruction, capture, or neutralization, under the circumstances ruling at the time, offers a definite military advantage.

[627] *Id*. at A-3. "Discrete," meaning "separate" or "distinct," should not be confused for its homonym "discreet," meaning "inconspicuous" or "subtle."

which must be "concrete and perceptible military advantage, rather than one that is merely hypothetical or speculative."[628] This definition incorporates the legal principle of military necessity by requiring attacks to be limited to entities contributing to the ability to wage war. Direct attacks on populations or objects exclusively to undermine enemy morale or civilian support for the war efforts are no longer considered to be lawful, as such attacks do not provide a definite military advantage.[629] As Hays Parks wrote, "'Morale' is neither an object nor a person. It may be affected by attack of military objectives. But morale may not in and of itself be a military objective, and civilian objects may not be attacked to affect civilian morale."[630] Likewise, the enemy's national will, the ultimate Clausewitzian objective of war, may be aimed at through attacks on lawful military objectives.[631]

Under JP 3-60, proportionality must also factor into any strike on military objectives.[632] Scholars have pointed out examples of nuclear weapon use where collateral damage would clearly not be excessive:

> [T]here seems to be no reason to fault the use of nuclear weapons in a 'strike upon troops and armor in an isolated desert region with a low-yield air-burst in conditions of no wind'. Another apparently acceptable setting would be that of detonating 'clean' nuclear weapons against an enemy fleet in the middle of the ocean . . . In neither of these two exceptional situations should the employment of nuclear weapons give rise to . . . any expectation of 'excessive' collateral damage to civilians or civilian objects.[633]

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628 *Id*. at A-2, A-3.

629 LAW OF WAR MANUAL, *supra* note 19, ¶ 5.6.7.3.

630 Parks, *Asymmetries and the Identification of Legitimate Military Objectives*, *supra* note 476, at 116 (quoting comments from Professor Knut Ipsen).

631 *Id*. at 99.

632 JP 3-60, *supra* note 625, at III-1.

633 DINSTEIN, THE CONDUCT OF HOSTILITIES UNDER THE LAW OF INTERNATIONAL ARMED CONFLICT, *supra* note 537, at 86, (quoting Schmitt, *supra* note 499, at 108). *See also* Justin Anderson, *Applying Jus In Bello to the Nuclear Deterrent*, ARMS CONTROL WONK (March 14, 2016), http://www.armscontrolwonk.com/archive/1201208/applying-jus-in-bello-to-the-nuclear-deterrent/ (describing a scenario where it would be legitimate for a U.S. nuclear strike to prevent a catastrophic, mass-casualty attack against the United States or an ally).

Under the conditions that characterize operational realities, law-of-war proportionally assessments are far more difficult.

Although subjective, modern proportionality requirements limit attack options, including potential attacks on military forces as well as war-sustaining, economic targets. Proportionality must account for legitimate civilian needs, like electrical power, in addition to incidental destruction and casualties.[634] Ultimately, the proportionality determination weighs collateral damage against military advantage, noting that "a very significant military advantage would be necessary to justify the collateral death or injury to thousands of civilians."[635] The assessment of the military advantage, however, is not limited to the tactical gains of the individual attack, but is linked to the full context of the war strategy.[636] This is consistent with the views of other nations who signed AP I with the understanding that the "military advantage of an attack" refers to the attack as a whole and not isolated or particular parts of the attack.[637]

Similar to the Rome Statute's obligations, JP 3-60 contained a doctrinal requirement to include environmental damage in the proportionality analysis. American commanders now have the affirmative "obligation to avoid unnecessary damage to the environment to the extent that it is practical to do so consistent with mission accomplishment."[638] They are cautioned to take "due regard" for the "protection and preservation of the natural environment" when weighing the dictates of military requirements against the possible methods and means of attack.[639] The publication's doctrinal obligations are consistent with the U.S. State Department's position on accounting for environmental damage.[640]

Applying proportionality requirements to nuclear weapons becomes very abstract, if not subjective. The examples of Hiroshima and Nagasaki are unhelpful in clarifying the modern legal analysis. First, the popular moral proportionality analysis of these strikes often compares the numbers actually killed against those who would have died if an invasion was necessary.[641] Second, many seem to treat the military advantage of these

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634 JP 3-60, *supra* note 625, at A-5.
635 LAW OF WAR MANUAL, *supra* note 19, ¶ 5.12.3.
636 JP 3-60, *supra* note 625, at A-4.
637 LAW OF WAR MANUAL, *supra* note 19, ¶5.6.7.3 n. 182.
638 JP 3-60, *supra* note 625, at A-7.
639 *Id*.
640 Matheson, *supra* note 404, at 436; Bellinger & Haynes, *supra* note 579, at 455-59
641 FREEDMAN, *supra* note 134, at 189.

strikes as Japan's surrender, rather than the destruction of specific military objectives. The primary historical error of these views is that they use the benefit of hindsight, with full knowledge of the atomic blast effects, numbers killed, and the political situation in Japan as well as the number of civilians at risk of starvation prior the end of the war. The primary legal flaw in these views is that the modern proportionality analysis was not required or conducted prior to the attacks. The modern approach would have required decision makers to weigh the expected collateral damage against the destruction of Hiroshima's regional military headquarters and Nagasaki's military industrial works as part of the overall Allied military strategy.

XV. Trends

United States nuclear targeting policy and the country's understanding of the law of war have evolved considerably. Certain trends are now evident.

The law-of-war requirement to limit attacks to military objectives remains an intact principle for nuclear war. The city-attack strategy during the early Cold War was not an abandonment of this requirement, but a result of limitations in intelligence and capabilities. Those cities still contained significant economic and industrial facilities representing legitimate targets. In the modern era, listing cities *per se* as the potential targets of attack would no longer be considered lawful, unless they were targeted pursuant to application of the doctrine of belligerent reprisal. Similarly, the concept of "bonus damage" is anathema to the modern sense of humanity, especially if such damage was intentionally engineered into a nuclear strike.

The doctrine of reprisal, which is an exception to the law-of-war rules for target selection, always lurks in the background of nuclear weapon policy. It gives the most coherent justification for Cold War strategies like targeting enemy cities, massive retaliation, and assured destruction.[642] It remains a viable legal rationale for countering unlawful attacks against U.S. vital interests. The limitations to the traditional legal doctrine, however, are that reprisals require unlawful prior conduct by the adversary and proportional responses. Fully rationalizing Cold War era Massive Retaliation or Assured Destruction requires assuming a total war construct

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[642] SCHWARZENBERGER, *supra* note 329, at 40-41.

where the adversary's intent to strike U.S. and allied cities is presumed at the outset and proportionality concerns are contextualized by the condensed timeframe and overwhelming destructive potentials involved in a nuclear exchange. Even if a nuclear exchange is limited, theoretically permitting the operation of the classic belligerent reprisal doctrine, concerns for massive loss of life remain.[643] Ambiguities in the law may give states flexibility in characterizing limited attacks as "illegal" and thereby allow justification for reprisal strikes. This leads to history's caution that reprisals tend to escalate conflicts rather than bring parties back into conformity with the law. That said, even though the United States strives to comply with the law at all times, its adversaries do not. The law of war is not a suicide pact.[644] Thus the mandate for deterrence keeps the doctrine of belligerent reprisal alive despite protests.

Furthermore, the law-of-war principle of distinction plays an increasing role of importance. The requirement was captured in AP I articles 48 and 51(4). These rules prohibit indiscriminant attacks on civilian populations. While the "new rules" contained in AP I do not apply to nuclear war, the principle of distinction is not a new rule. Moreover, the American public and international community at large has ever-increasing expectations of precision attacks by U.S. munitions. This increasing demand for precision and discrimination creates concerns on multiple levels. On the one hand, highly accurate, low yield nuclear weapons would be more likely to mitigate legal concerns, but some fear that such improvement would make the weapons more likely to be used. On the other hand, nuclear weapon employment would still break a "nuclear taboo" and risk producing significant collateral damage. How public expectations of precision damage match with the destructive effects of nuclear weapons will remain a significant legal and policy conundrum as long as nuclear weapons exist.

Despite the increasing role of the law of war for all military operations, the actual role of the law of war relating to nuclear weapons remains at an extraordinary level of abstraction.[645] For example, consider a strike against a WMD target near a dam, the breach of which would flood a major

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643 KALSHOVEN, *supra* note 25, at 376.

644 Parks, *Air War and the Law of War*, *supra* note 56, at 54.

645 The *Law of War Manual* advises, "[A] very significant military advantage would be necessary to justify the collateral death or injury to thousands of civilians." LAW OF WAR MANUAL *supra* note 19, ¶ 5.12.3.

city. The U.S. rejects the AP I article 56 requirement to refrain from striking dams, dykes or nuclear power plants with conventional weapons when effects would have severe consequence on the civilian population.[646] Instead, the U.S. favors a more general proportionality analysis on any such attack with a conventional weapon.[647] Under the U.S. approach, removing the threat posed by the WMD would be weighed against the probability and degree of civilian casualties, damage and hardship as well as environmental damage. If nuclear weapons would be used to strike the WMD objective, the abstraction in applying a proportionality test increases by orders of magnitude.

The abstractions in applying the law of war to potential nuclear weapon use is not a result of negligence or oversight but can only be a deliberate course of action by States.[648] The international community, to include the nuclear weapon States, has been able to negotiate *jus in bello* rules after the advent of atomic weapons such as the 1949 Geneva Conventions and the 1977 Additional Protocols. The United States and former Soviet Union were able to negotiate arms control treaties. Yet the nuclear weapon States have not demonstrated any will to negotiate specific rules for employing nuclear weapons.[649] Perhaps the best explanation is that policymakers do not trust the credibility of legal restrictions to protect against nuclear-armed opponents and, simultaneously, the lack of regulation complements nuclear deterrence by confronting enemies with uncertainty.

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[646] Matheson, *supra* note 404, at 427.

[647] *Id*. at 434.

[648] For example, the United States has intentionally practiced "calculated ambiguity" to deter adversaries armed with chemical and biological weapons. William Perry, et al., *U.S. Nuclear Weapons Policy, Independent Task Force Report no. 62*, COUN. ON FOR. RELAT'S 16-17 (2009), http://www.cfr.org/proliferation/us-nuclear-weapons-policy/p19 226. The North Atlantic Treat Alliance also leverages ambiguity in its nuclear posture to underscore the irrationality of a major war in the Euro-Atlantic region. *Id.* at 15.

[649] The United Nations Committee on Disarmament and International Security, also known as the First Committee, is striving for nuclear disarmament. Thalif Deen, *U.N. Plans New Working Group Aimed at Nuclear Disarmament*, INTER PRESS SERVICE NEWS AGENCY (Oct. 28, 2015), http://www.ipsnews.net/2015/10/u-n-plans-new-working-groups-aimed-at-nuclear-disarmament/. The United States seeks to achieve a world without nuclear weapons by pursuing a full-spectrum, pragmatic approach by steadily reducing the role and number of nuclear weapons in a way that advances strategic stability and thereby fostering conditions and opportunities for further progress. Rose, *supra* note 355. According to John Burroughs, Executive Director of the New York-based Lawyers Committee on Nuclear Policy, the United States is willing to support a U.N. working group that would explore all effective measures for nuclear disarmament, but not negotiate legal measures. Deen, *supra.*

XVI. Conclusion

Nuclear targeting strategy and its legal support were primarily built on Second World War strategic bombing practices, which arose from earlier theories and legal understandings. Pre-war legal concerns over strategic bombardment and targeting were not resolved by the conflict. Indeed, the legal legacy of the Second World War permitted vague definitions of military objectives and tolerance for civilian collateral damage, justified by a spirit of retaliation. Insomuch as the United States military resisted targeting "morale" as an objective during the war, it adopted the rationale when developing war plans during the Truman administration to stop potential totalitarian aggression. Collateral damage was embraced as a "bonus." Eisenhower's emphasis on Massive Retaliation imperfectly invoked the belligerent reprisal doctrine for deterrence. While U.S. strategy expanded targets to more military force entities, it also included targets under a "population" category—a significant departure from law of war norms. The legal concern over population targeting was addressed during the Kennedy and Johnson administrations, but only by returning the emphasis to broad World War Two concepts of targeting enemy industry and economic infrastructure, with Assured Destruction leaving little room for law-of-war concerns over distinction and proportionality. The Nixon and Ford administrations began tasking the military to seek selective options so as to control escalation in the hope of avoiding Armageddon, but did so with even greater emphasis on targets representing the Soviet's ability to recover economically. The United States finally settled on a countervailing strategy to close out the Cold War, retaining, but deemphasizing, economic targets based on value to the enemy rather than on legal concerns. The demands of deterring an adversary without scruples relegated the law to the periphery. As much as the United States' targeting concepts appeared to break with law-of-war norms, exacting legal standards did not get firmly articulated until AP I was finalized. Although the United States rejected the treaty and held that its new rules did not apply to nuclear weapons, AP I articulated customary law standards for targeting, especially for distinction and proportionality. The United States acknowledged the applicability of these standards during the ICJ's *Nuclear Weapons* proceedings and brought its nuclear targeting strategies into compliance with its understanding of legal obligations.

The Obama administration's summary of international law applicable to nuclear weapon targeting was succinct and in keeping with the trajectory of history after the fall of Soviet communism. President Obama

articulated a standard that the Trump Administration inherits. The mandate not to strike civilian objects, but military ones only, however, was not new; it was also made by President Truman when issuing employment guidance for atomic bombs. Civilian objects can easily be converted to military objectives based on direct, indirect, or even discrete future intended or potential military use. Understanding the history of major conflicts makes it abundantly clear that industrial, infrastructure, and economic objects were high-priority targets in the past. If defining how and when these objects become military targets is problematic, then a better standard is required. Since defenders are obligated to keep their military objects distinct from civilian ones, the U.S. and international community may wish to clarify these ambiguities.

Clarity, however, may not serve a constructive purpose. Adversaries may attempt to leverage new restrictions to their advantage. Rules for humanitarian safeguards are regularly ignored by ruthless dictators. They do not demonstrate care for their civilian populations in the Western sense. For example, while the United States located its ICBMs to the rural center portion of the country during the Cold War, the Soviet Union spread their arsenal over their territory, including the heavily populated areas west of the Ural Mountains.[650] Today's rogue actors may not care if civilian populations suffer or starve; they may value civilian objects only as shields from attack, rather than as having inherent humanitarian value. If new legal restrictions were in place, would rogue actors adhere to them? If not, how would the West respond? These are especially challenging questions the United States would face if the doctrine of belligerent reprisal were eliminated. Realistic assessments of potential adversary behavior and deception should always temper approaches to new rules.

The questions and ambiguities about targeting touch on the overall deterrence mission of the nuclear force. If potential adversaries believe the U.S. will not strike certain objects, then that perception will affect their decisions about courses of action and likely consequences. Possessing capabilities matching legal requirements will add credibility to deterrence. At the same time, ambiguity in the law of war can serve to improve deterrence by keeping adversaries uncertain as to the exact nature of potential responses to aggression.

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[650] Ball, *Toward a Critique of Strategic Nuclear Targeting*, *supra* note 245, at 21.