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Legal and Policy Constraints on the Conduct of Aerial Precision Warfare

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Legal and Policy Constraints on the Conduct of Aerial Precision Warfare

*Nathan A. Canestaro**

ABSTRACT

Focusing his historical analysis on World War II, Mr. Canestaro describes how the substantial legal and policy controls under which the U.S. military conducts its air campaigns meet or exceed the requirements of international treaties and the customary practice of states. Bombing technology has only recently developed to the point of allowing compliance with international legal standards, and the United States has implemented stringent measures in recent conflicts to minimize unintended civilian casualties in warfare. Mr. Canestaro demonstrates that because these self-imposed restrictions go beyond the point of mere compliance, they often constitute a disadvantage to the conduct of U.S. military operations. Strict U.S. military compliance with international legal standards and self-imposed policy restrictions derived from political fear of excessive casualties insure that adversaries are rarely engaged with the full measure of U.S. military might.

The development of precision weapons over the last several decades has made armed conflict both more and less lethal. Against his established historical background, Mr. Canestaro measures modern U.S. military practice and technology against the customary standards, concluding that self-imposed legal and policy restraints designed to protect civilian lives have risen in step with technological developments allowing greater precision and thus avoidance of collateral damage. This situation continues significantly to shape the conduct of campaigns and to offer advantages to U.S. adversaries who choose not to follow the customary standards as faithfully.

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TABLE OF CONTENTS

I.	INTRODUCTION		432
II.	THE EVOLUTION OF LAW AND TECHNOLOGY RELATING TO PRECISION BOMBING		434
	A.	*Pre-World War I*	436
	B.	*World War I and the Interwar Period*	438
	C.	*World War II's "Crisis of Distinction"*	443
	D.	*Vietnam and Protocol I*	448
	E.	*The Gulf War and Beyond: Precision Warfare Comes of Age*	450
III.	THE RULES OF WARFARE		454
	A.	*Military Necessity*	454
	B.	*Discrimination (Distinction)*	457
	C.	*Proportionality*	462
	D.	*Humanity (Unnecessary Suffering)*	464
IV.	THE RULES OF ENGAGEMENT		465
	A.	*What Are RoE?*	465
	B.	*How Are RoE Implemented?*	467
	C.	*How Does Policy Affect RoE?*	468
V.	WHERE THE RUBBER MEETS THE ROAD: POLICY AND LAW DRIVING MILITARY OPERATIONS		472
	A.	*Limitation on Choice of Targets and Method of Attack*	472
	B.	*Sensitivities to Friendly Casualties or Collateral Damage*	476
VI.	THE COSTS OF PLAYING FAIR		479
VII.	CONCLUSION		482

I. INTRODUCTION

"Men who take up arms against one another in public war do not cease on this account to be moral beings, responsible to one another and to God."[1] Lieber Code, 1863.

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1. Francis Lieber, Instructions for the Government of Armies of the United States in the Field, promulgated as General Orders No. 100 by President Abraham Lincoln, Apr. 24, 1863, art. 15, *reprinted in* THE LAWS OF ARMED CONFLICTS: A COLLECTION OF CONVENTIONS RESOLUTIONS AND OTHER DOCUMENTS 3 (Dietrich Schindler & Jirí Toman eds., 3rd rev. ed. 1986) [hereinafter Lieber Code].

> "In war the main idea is to get the bombs on the targets."[2]
> General Curtis LeMay, U.S. Air Force, 1995.

In the last few years, the media has devoted much time and effort to documenting the civilian deaths that have resulted from U.S. military operations around the globe. Every death is a tragedy, but in Kosovo, Afghanistan, and Iraq, the press has sensationalized these deaths rather than determining whether they could have been prevented. Although the media has publicized the impressive capabilities of precision weaponry, it has not conveyed that military campaigns are not precise merely because the weapons are. Contrary to Cicero's adage, *silent enim leges inter arma*,[3] the U.S. military operates under strict limitations imposed by civilian political administrations and the requirements of the law of war. It is the combined effect of these "rules of engagement" and the capabilities of precision weaponry that have reduced civilian casualties in recent conflicts.

These restrictions on U.S. military action are driven as much by political fear of public reaction to casualties as they are by respect for the law, and are often stricter than the law of war would otherwise require. Regardless of the motives, the U.S. commitment to the prevention of noncombatant deaths is extraordinary when viewed in the context of the difficulty of distinguishing military targets from nearby civilian areas, the technical challenges to precise aerial bombing, and the conduct of many U.S. opponents, who often attempt to exploit U.S. adherence to the law to their advantage.

This Article will establish that the U.S. military conducts its air campaigns under substantial legal and policy controls that meet or exceed the requirements of international treaties and the customary practice of states. Furthermore, this Article will demonstrate that these self-imposed restrictions go beyond the point of mere compliance and can be so strict as to constitute a definite disadvantage against adversaries who attempt to leverage U.S. compliance for their own military gain. In spite of these apparent drawbacks, the United States maintains a system of exhaustive legal review in a target acquisition cycle where speed is often critical and respects arbitrary policy restrictions that may never allow the enemy to be fully engaged by the full measure of U.S. military might.

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2. Gen. Curtis LeMay, Eighth Air Force Commanding General to Eighth Air Force Command Commanding General, Mar. 31, 1944, File 452.26, Folder—Bombsights, RD-3690, RG 342, *quoted in* STEPHEN L. MCFARLAND, AMERICA'S PURSUIT OF PRECISION BOMBING: 1910-1945 7 (1995).

3. "The law stands mute in the midst of arms." MARCUS TULLIUS CICERO, PRO MILONE, IV, 11, *quoted in* BARTLETT'S FAMILIAR QUOTATIONS: A COLLECTION OF PASSAGES, PHRASES AND PROVERBS TRACED TO THEIR SOURCES IN MODERN LITERATURE 98 (Emily Morrison Beck ed., 15th ed. 1980).

In order to establish this claim, this Article will first examine the development of the legal standards that apply to aerial bombardment and the related technology and tactics. This will serve to illustrate that until the end of the Vietnam war, the technology of aerial bombardment was, to a large degree, not capable of achieving the precision required by the accepted law. By comparing the customary practice of nations with the standards codified in international treaties, this Article will establish that "the history of bombardment regulation shows a distinct utilitarian development, in which the idea of military effectiveness dominates, and in which the doctrines of permissible violence and social sanction are of secondary importance as checks or influences."[4]

This Article will focus its historical analysis primarily on World War II as evidence of customary practice, because the crucial national interests at risk in that conflict forced all parties to cede no advantage and comply only with the most basic standards for wartime conduct.[5] Brief examinations will also be made of the use of air power in regional conflicts that followed the development of precision weapons, such as the Gulf Wars, Kosovo, Afghanistan, and, to a lesser degree, Vietnam. These will serve to contrast modern U.S. practice and technology against the customary standard and to determine the degree to which legal and policy restraints actually shaped the conduct of those campaigns.

II. THE EVOLUTION OF LAW AND TECHNOLOGY RELATING TO PRECISION BOMBING

The basic legal restrictions on the conduct of aerial bombing are based on the international laws of armed combat, sometimes referred to as the "law of war". It is "that part of international law that regulates the conduct of armed hostilities."[6] This body of law is derived from both codified law, such as treaties and conventions, and the customary practices of warring states.[7] It "restricts both the

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4. THE LAWS OF WAR: CONSTRAINTS ON WARFARE IN THE WESTERN WORLD 151 (Michael Howard et al. eds., 1994) [hereinafter LAWS OF WAR].

5. More limited conflicts such as the Gulf Wars and Kosovo will be discussed later, but their utility as an indication of the practice of nations is hampered by the relatively peripheral interests at stake. Nations may exercise a more moderate level of force when no crucial interest, such as national survival, is at stake, but total war is the most revealing indication of the most basic requirements of war that no nation will violate.

6. UNITED STATES DEPARTMENT OF DEFENSE, CONDUCT OF THE PERSIAN GULF WAR: FINAL REPORT TO CONGRESS O-1, (Apr. 1992) [hereinafter GULF WAR REPORT].

7. ALAN VICK ET AL., AEROSPACE OPERATIONS IN URBAN ENVIRONMENTS 40 (2000).

means of waging war and the objects against which such means may be employed."[8]

The law of war has two specific shortcomings in regard to the conduct of air operations. First, little of it is specifically dedicated to aerial warfare. Those few treaties and conventions dedicated to air combat, or containing provisions that mention it specifically, are either unratified or have not been recognized as binding by the United States. Thus, legal practitioners have been forced to adapt to the subject of air operations the body of law that covers land or naval warfare or the use of force generally,[9] much of which was drafted before the development of powered flight.

A second shortcoming in the conduct of air operations is that the law of war is not enforceable upon nations in the traditional sense; no permanent international judicial body with the necessary universal jurisdiction exists to enforce it, and domestic courts only rarely adjudicate violations.[10] Instead, compliance with the law often stems from decisions of national policy or military necessity—suggesting that in the most serious conflicts, limitations on warfare are more likely to be abandoned entirely.[11] In this manner, the laws of war are "respected and enforced [between opposing states] in an ongoing process of reciprocation and retaliation. Arrangements that seemed to be in the common interest of the antagonists [are] respected so long as compliance [is] reciprocal."[12]

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8. LESLIE C. GREEN, THE CONTEMPORARY LAW OF ARMED CONFLICT 118 (Gilliam M. White ed., 1993).

9. *Id.* at 118, 173.

10. *See* Michael C. Bonafede, *Here, There, and Everywhere: Assessing the Proportionality Doctrine and U.S. Uses of Force in Response to Terrorism after the September 11 Attacks*, 88 CORNELL L. REV. 155, 203 (2002) ("While domestic politics functions under a system of authority, global politics is anarchic. There is no central authority to determine how nations should act . . . and unilaterally enforce rules for such interactions."); *see also* JUDGE ADVOCATE GENERAL'S SCHOOL OPERATIONAL LAW HANDBOOK 28 (LCDR William O'Brien, JAGC USN et al. eds. 2003) [hereinafter OPERATIONAL LAW] (indicating that under U.S. law, commission of war crimes, which are also violations of the law of war, are enforceable against individuals as criminal offenses). It is Department of Defense policy that any member of the armed forces that commits a war crime will be charged under the Uniform Code of Military Justice. Furthermore, The War Crimes Act of 1997, 18 U.S.C. § 2401 (1997), provides federal courts with jurisdiction to prosecute any person inside or outside of the United States for war crimes if a U.S. national stands accused or was a victim. *Id.*

11. MICHAEL C. WAXMAN, INTERNATIONAL LAW AND THE POLITICS OF URBAN AIR OPERATIONS 25-26 (2000) ("Public and coalition sensitivity to friendly casualties . . . often reduces operational flexibility more severely than does adherence to the international law of armed conflict."); *see also* THE LAWS OF WAR: A COMPREHENSIVE COLLECTION OF PRIMARY DOCUMENTS ON INTERNATIONAL LAWS GOVERNING ARMED CONFLICT xviii (W. Michael Reisman & Chris T. Antoniou eds., 1st ed. 1994) [hereinafter Reisman & Antoniou].

12. Reisman & Antoniou, *supra* note 11, at xvii-xviii.

A. *Pre-World War I*

Although much of the law of war has been derived from the practice of nations and the Christian "just war" tradition, it was not until the industrialized wars of the late nineteenth and early twentieth centuries that the law of war began to be formally codified. The "written and organizational genesis"[13] of this modern body of law was the 1863 Lieber Code. Drafted by Columbia University Professor Francis Lieber and implemented as the U.S. Army's General Orders No. 100, this code was the first attempt to draft formal regulations based on customary practice.[14] It reflected the traditional permissibility of attacks on all enemy combatants, stating that "military necessity admits of all direct destruction of life or limb of armed enemies, and of other persons whose destruction is incidentally unavoidable in the armed contests of the war."[15] Under the justification of military necessity, the Lieber Code also allowed attacks against other targets that "are indispensable for securing the ends of the war, and which are lawful according to the modern law and usages of war."[16] It also recognized the traditional immunity of noncombatants, but conceded that they could not be completely separated from the burdens of the conflict:

> The citizen or native of a hostile country is thus an enemy, as one of the constituents of the hostile state or nation, and as such is subjected to the hardships of war. . . . Nevertheless, as civilization has advanced . . . so has . . . the distinction between the private individual belonging to a hostile country and the hostile country itself, with its men in arms. The principle has been more and more acknowledged that the unarmed citizen is to be spared in person, property, and honor as much as the exigencies of war will admit.[17]

This provision in the Code reflected the customary understanding that when noncombatants are injured or killed as a result of an attack against a lawful target, the attack remains legal provided the civilian deaths are indirect and unintentional in relation to the initial act.[18] These unintended noncombatant deaths, known in modern

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13. Lt. Commander Stuart Walters Belt (USN), *Missiles Over Kosovo: Emergence, Lex Lata, of a Customary Norm Requiring the Use of Precision Munitions in Urban Areas*, 47 NAVAL L. REV. 115, 137 (2000).

14. GREEN, *supra* note 8, at 27; *see also* W. Hays Parks, *Air Law and the Law of War*, 32 A.F. L. REV. 1, 7 (1990). The Lieber Code later served as a model both for other nations' codes of conduct and for the international conventions on the law of armed combat. *See* GREEN, *supra* note 8, at 27-28.

15. Lieber Code, *supra* note 1, art. 15.

16. *Id.* art. 14.

17. *Id.* arts. 21-22.

18. Parks, *supra* note 14, at 4.

military parlance as "collateral damage," were regarded as the cost of waging war and not the responsibility of the attacker.[19]

This "siege doctrine" originated from the practice of laying siege to an enemy city. Once the city had been surrounded, and the offer to accept a surrender had been extended by the attackers and declined by the defenders, injury or death of noncombatants garrisoned inside was traditionally the responsibility of the besieged commander because it resulted from his refusal to surrender.[20] Furthermore, once the city had fallen, the attacker could put all occupants—including noncombatant women and children—to the sword. Although this latter practice had declined by the Industrial Age, allotting responsibility to the defender for noncombatant deaths encouraged a prompt capitulation by making the consequences of continued resistance too grievous to accept.[21]

It was not until the ratification of the Hague Conventions of 1899 and 1907 that the international community was successful in codifying international regulations that directly affected combat operations.[22] At the time, aviation was in its infancy—with the Wright brothers' first successful flight occurring in 1903—and there was little international recognition that aviation would soon make a significant contribution to warfare.[23] The only direct mention of aerial bombardment in either the 1899 or 1907 Conventions was a five-year moratorium placed on the dropping of projectiles and explosives from balloons contained in Commission I of the 1899 Hague Conference.[24] No other portion of these instruments dealt with air combat specifically, but they did contain other rules that were applicable to the subject by inference.[25] For example, the 1907 Hague IV Convention regarding the "Laws and Customs of War on Land" linked the propriety of an attack to that which is "demanded by the necessities of war,"[26] confirming that a legitimate military target could be attacked wherever located.[27] However, it also prohibited the "attack or bombardment of towns, villages, habitations, or buildings, which are undefeated."[28] Although presumably drafted with the intent of regulating bombardment by land-based artillery, this rule implied that an attack against a city where resistance continued was

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19. *Id.* at 4, 18-19, 31.
20. *Id.* at 4.
21. *Id.*
22. *Id.* at 19.
23. GREEN, *supra* note 8, at 35.
24. LAWS OF WAR, *supra* note 4, at 141.
25. *Id.* at 118, 173.
26. Convention Relative to the Opening of Hostilities, Oct. 18, 1907, art. 23(g), 36 Stat. 2259 [hereinafter Hague IV].
27. Parks, *supra* note 14, at 14.
28. Hague IV, *supra* note 26, art. 25.

acceptable, a principle that could be applied to the conduct of aerial bombardment.

This "defended places" rule also reflected the customary siege rule under which the defender bore responsibility for casualties resulting from his failure to surrender. Hague IV also made provisions for protection of noncombatants and required the preservation of humanitarian facilities such as hospitals, churches, and museums. "In sieges and bombardments, all necessary steps should be taken to spare as far as possible buildings dedicated to religion, art, science, or charitable purposes, historical monuments, hospitals, and places where the sick and wounded are collected, provided they are not used at the same time for military purposes."[29] However, it also established that "it is the duty of the besieged to indicate the presence of such buildings,"[30] confirming the responsibility of the defender to mitigate noncombatant loss.

The 1907 Hague IX Convention contained several provisions on naval bombardment that were generally applicable to aerial bombing. It relieved an attacker of legal responsibility for collateral damage that was "unavoidable,"[31] bringing naval bombardment within the scope of the siege rule.[32] Although only intended as a codification of customary law,[33] Hague IX stepped beyond Hague IV in that it provided specific guidance in the types of targets that could be legitimately attacked. These sites included "military works, military or naval establishments, depots of arms or war material, workshops or plants which could be utilized for the needs of the hostile fleet or army, and the ships of war in the harbor."[34] This broad construction of military necessity was significant in that it indicated civilian industry that supported the war effort could be lawfully attacked.[35]

B. *World War I and the Interwar Period*

Meetings to establish subsequent international conventions regarding the conduct of warfare were pre-empted by the onset of World War I. The significant strike role aircraft could play in this conflict was not initially recognized, and so at first, aircraft were mainly used for scouting and reconnaissance. Small-scale aerial bombing raids conducted by the Germans in 1914 started a cycle of

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29. *Id.* art. 27.
30. *Id.*
31. Convention Concerning Bombardment by Naval Forces in Time of War, Oct. 18, 1907, art. 2, 36 Stat. 2351 [hereinafter Hague IX].
32. Parks, *supra* note 14, at 19.
33. *Id.* at 20.
34. Hague IX, *supra* note 31, art. 2.
35. Parks, *supra* note 14, at 18.

escalatory attacks, however, and by the end of the war both sides were using aircraft to bomb enemy urban and industrial centers.[36] Although each side accused the other of deliberately targeting the civilian population,[37] the historical record suggests that harm done to civilians during the war was caused by inadequacies in navigation, target identification, and bombing accuracy rather than "malice aforethought."[38]

Aviators in World War I had only three basic methods by which to navigate to their targets. The first was to employ celestial positioning, which was time consuming. The second was to use dead reckoning, which was often inaccurate.[39] Finally, pilots could "fly the iron compass" and orient themselves by following roads and rail lines from the air,[40] but this often exposed them to deadly ground fire. Because the technology of aiming bombs remained crude, and pilots found it difficult to distinguish targets from the air, bombardments were often so inaccurate that those on the ground often could not determine whether the attack was aimed at a military target or directed against the civilian population.[41] Furthermore, as both sides' anti-aircraft defenses improved, bombers were forced to fly at higher altitudes and at night to improve their chances for survival, further diminishing their overall accuracy.

Following the war, jurists and politicians attempted unsuccessfully to control the sudden emergence of aviation as a part of warfare in three ways: (1) restricting the types and quantity of aircraft available to combatants, (2) prohibiting certain tactics, and (3) attempting to establish international legal constraints on the use of aircraft generally.[42] Because the 1922 Washington Conference on the Limitation of Armaments failed to establish any regulation of these methods to control aerial warfare, the Hague Commission of Jurists subsequently convened to undertake the latter two methods.[43]

The Hague Draft Rules of Air Warfare produced by this Commission departed from customary law in several crucial ways.

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36. HERMANN KNELL, TO DESTROY A CITY: STRATEGIC BOMBING AND ITS HUMAN CONSEQUENCES IN WORLD WAR II 105-117 (2003) ("The Germans had started bombing civilians . . . but were hit back."); MICHAEL S. SHERRY, THE RISE OF AMERICAN AIR POWER: THE CREATION OF ARMAGEDDON 12-13 (1987).

37. KNELL, *supra* note 36, at 108-09.

38. Parks, *supra* note 14, at 22.

39. MICHAEL RUSSELL RIP & JAMES M. HASIK, THE PRECISION REVOLUTION: GPS AND THE FUTURE OF AERIAL WARFARE 16-17 (2002).

40. *Id.* at 17.

41. LAWS OF WAR, *supra* note 4, at 145.

42. Donald Cameron Watt, *Restraints on War in the Air Before 1945*, *in* RESTRAINTS ON WAR: STUDIES IN THE LIMITATION OF ARMED CONFLICT 63 (Michael Howard ed., 1979).

43. *Id.* at 66; SHERRY, *supra* note 36, at 33-34; *see also* GREEN, *supra* note 8, at 36 (noting that, while the rules drawn up by the jurists have some authority, they are not binding).

For example, in addition to specifically applying the Hague IX provisions outlawing the bombardment of enemy cities to air combat,[44] the Draft Rules provided that "aerial bombardment is legitimate only when directed at a military objective, that is to say, an object of which the destruction or injury would constitute a distinct military advantage to the belligerent."[45] This was a departure from customary law in that it attempted to shift the responsibility for avoiding collateral damage to the attacker.[46]

In another departure from customary law, Section 24(2) of the Draft Rules strictly limited the set of permissible targets to military forces, thus excluding the types of attacks against civilian industrial targets that had been permissible under Hague IV and Hague IX and were common practice during World War I.[47] Finally, in Article 24(3), the Draft Rules stated:

> [T]he bombardment of cities, towns, villages, dwellings, or buildings not in the immediate neighborhood of the operations of land forces is prohibited . . . in cases where [military objectives are in cities, and] they cannot be bombarded without the indiscriminate bombardment of the civilian population, the aircraft must abstain from such bombardment.[48]

This rule differed from customary law by limiting bombardment to the front lines and by suggesting that an evaluation of the legality of an attack be based upon the results of the attack rather than an analysis of the intent of the attacker.[49] Scholars noted that as a result of these differences from the then-current law, the first and only effort at regulation of aerial bombardment before World War II was "doomed from the outset by language that established rules for black-and-white situations in a combat environment permeated by shades of gray."[50]

While politicians and lawyers were struggling unsuccessfully to control aviation as a tool of warfare, military strategists were

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44. KNELL, *supra* note 36, at 131.

45. The Hague Draft Rules of Air Warfare, Feb. 19, 1923, art. 24(1), *reprinted in* DOCUMENTS ON THE LAWS OF WAR 121 (Adam Roberts & Richard Gueff eds., 2d ed. 1989) [hereinafter Hague Draft Rules].

46. Parks, *supra* note 14, at 32. ("[Article 24(1)] was a 180-degree change of course in then-existing bombardment philosophy.").

47. *Id.* at 34.

48. Hague Draft Rules, *supra* note 45, art. 24(3).

49. Parks, *supra* note 14, at 34.

50. *Id.* at 35. Legal scholars from states that have ratified Protocol I—which echoes many of the limitations in the 1923 Hague Draft Rules—are more likely to cite the Draft Rules' relevance and effect on modern law. See GREEN, *supra* note 8, at 36, in which the Canadian author notes that the Draft Rules are "an authoritative attempt to clarify and formulate rules of law governing the use of aircraft in war."

defining the aerial doctrine that would be used in the next war.[51] During the late 1920s and early 1930s, planners at the newly formed Air Corps Tactical School (ACTS) theorized that precision bombing against key industrial nodes and economic targets could effectively bring an opponent state to its knees.[52] If sufficient numbers of these "bottleneck" targets could be destroyed from the air, ACTS planners theorized, it might be possible to "paralyze the [enemy] nation's ability to wage war . . . and [its] hostile will to resist."[53]

Although bombers in the First World War were not capable of this level of precision, the staff at ACTS believed that formations of more modern bombers equipped with sophisticated high altitude bomb-aiming equipment could "prove to be a more convincing argument against war than all the Hague and Geneva Conventions put together."[54] Subsequent demonstrations of the capabilities of aerial bombing—such as the 1921 sinking of the surrendered German battleship *Ostfriesland* off the coast of Virginia—raised international interest by proving aircraft could inflict serious damage, but did little to overcome political opposition to funding a significant increase in the Air Corps.[55] Partly because of "deep-rooted opposition to making civilians targets in war," and partly because of perceptions that strategic bombing was inconsistent with the official U.S. policy of isolationism, U.S. air power did not receive the resources required to build more than just a token force until late in the 1930s.[56]

An accepted—or at least not refuted—counterargument to the precision doctrine of ACTS suggested that accuracy was not needed in

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51. MCFARLAND, *supra* note 2, at 27 (discussing doctrines created by, among others, the field officers school and the Morrow Board).

52. BENJAMIN S. LAMBETH, THE TRANSFORMATION OF AMERICAN AIR POWER 264 (2000); SHERRY, *supra* note 36, at 51-57 ("[The Acts Doctrine] saw economic targets as a more effective point of attack on the enemy's nerves."); *see also* LAWS OF WAR, *supra* note 4, at 150.

53. MCFARLAND, *supra* note 2, at 91.

54. LAWS OF WAR, *supra* note 4, at 150; SHERRY, *supra* note 36, at 57.

55. Although the sinking of the *Ostfriedland* was heralded by air power advocates as proof positive of the power of precision bombing, a close examination of the results of the attack revealed the accuracy problems that continued to plague aerial bombing. General Mitchell's eight biplanes dropped their bombs on a motionless, defenseless vessel 546 feet long and 93 feet wide from altitudes no higher than 2,500 feet, but were only able score hits 19 percent of the time. Although viewed by contemporaries as a great success it seems apparent now that the technology of aerial bombing had still not caught up with the strategy of the time. MCFARLAND, *supra* note 2, at 46-47; *see also* GERALD ASTOR, THE MIGHTY EIGHTH: THE AIR WAR IN EUROPE AS TOLD BY THE MEN WHO FOUGHT IT 6 (1997); SHERRY, *supra* note 36, at 36-37, 49 (chronicling lack of political support for aerial support). Mitchell was later court-martialled and used the trial as a stage from which to condemn the neglect of air power by the U.S. military. *See* RONALD SCHAFFER, WINGS OF JUDGMENT: AMERICAN BOMBING IN WORLD WAR II 11 (1985).

56. MCFARLAND, *supra* note 2, at 82; *see also* SHERRY, *supra* note 36, at 36-37, 49.

aerial bombing to produce military results. [57] A variety of theorists believed that extensive bombing of population centers would affect the morale of civilian populations, reducing their will to fight and increasing public pressure on their governments to end wars.[58] Paralleling the siege rule, this theory also supported the idea that an unrestricted and brutal war would either deter the initiation of conflicts or hasten their conclusion, reducing the considerable cost in human life that would result from a long and protracted conflict.[59] Although modern military lawyers such as W. Hays Parks have dismissed this theory as an "afterthought to explain away the inherent inaccuracy of bombing,"[60] the concept of unrestrained bombing against the enemy had many prominent supporters at the time.

Sources as early as the 1863 Lieber Code suggested of nations at war that "peace is their normal condition; war is the exception. The ultimate object of all modern war is a renewed state of peace. The more vigorously wars are pursued, the better it is for humanity."[61] Italian Brigadier Commander Giulio Douhet's 1921 work *Il Dominio dell' Aria* (Command of the Air) was one of the cornerstone works for this argument. Douhet believed that modern war was more than just armies in the field; it involved an entire society, including "the soldier carrying his rifle, the woman loading shells in a factory, the farmer growing wheat, the scientist experimenting in his factory."[62] Aerial attacks on front-line military troops only intensified the carnage on the battlefield, but civilians lacked the determination of soldiers and were thus vulnerable to attacks against their "will to resist."[63] Because the "decisive blows will be directed at civilians, that element . . . least able to sustain them,"[64] . . . the infliction of high

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57. Parks, *supra* note 14, at 51 (generally explaining support for "indiscriminate bombardment").

58. SCHAFFER, *supra* note 55, at 20-21; *see also* Parks, *supra* note 14, at 51-52.

59. SHERRY, *supra* note 36, at 16 ("The principal element in the moral case for strategic bombing is that it would rescue humanity from the horrors of stalemated, industrialized war."). The siege rule was later specifically invoked by Sir Arthur Harris, the British Air Marshall in charge of RAF Bomber Command, in order to justify the RAF's nighttime area bombing of urban areas. *See* KNELL, *supra* note 36, at 218.

60. Parks, *supra* note 14, at 55. Critics of the time, such as U.S. Secretary of War Newton D. Baker, also condemned strategic bombing of urban areas as "an abandonment of the time-honored practice among civilized people of restricting bombardment to fortified places or to places from which the civilian population had an opportunity to be removed." MCFARLAND, *supra* note 2, at 81.

61. Lieber Code, *supra* note 1, art. 29. Other modern scholars, such as British author J.M. Spaight echoed this argument, arguing that the power of aviation to end wars quickly through maximum violence made it a "savior of civilization." KNELL, *supra* note 36, at 54.

62. SCHAFFER, *supra* note 55, at 21.

63. MCFARLAND, *supra* note 2, at 77-78.

64. SCHAFFER, *supra* note 55, at 22.

civilian casualties would unravel civilian morale, and create pressure upon the opponent state to capitulate.[65]

Douhet was not arguing that the moral barrier between killing troops and killing civilians should be breached. Instead, he believed that technology had made civilians part of the national war machine, thus making a distinction between the two groups obsolete.[66] Douhet was only one of numerous prominent military personnel who supported aerial attacks against civilian populations. In the United States, General Billy Mitchell also shared the conviction that a war must be taken to the citizens of the enemy state. Civilians, he reasoned, are "manufacturers of munitions,"[67] and therefore subject to bombing. Although he expected international conferences to outlaw the bombing of cities, he echoed Douhet in arguing that strategic bombing was "a benefit to civilization" in that it would take fewer lives and expend fewer resources than traditional clashes between armies.[68]

C. *World War II's "Crisis of Distinction"*

Even without the ratification of any international instrument specifically relating to aerial bombardment, the nations that would soon be fighting World War II drafted their own unilateral policies that reflected their understanding of customary law. In 1938, British Prime Minister Neville Chamberlain declared Britain would comply with the 1923 Hague Draft Rules[69] and stated it was "against international law" deliberately to attack civilians.[70] He also required that bombing targets be "legitimate military objectives . . . capable of identification,"[71] and that British bomber crews exercise "reasonable care" in attacking military objectives, "so that by carelessness a civilian population in the neighborhood is not bombed."[72] These guidelines were issued to the Royal Air Force in September of that year, along with a stern warning that targets should not be bombed "unless [they can be] attacked with a reasonable expectation of

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65. LAMBETH, *supra* note 52, at 270.

66. SCHAFFER, *supra* note 55, at 23, 33 (providing example of Allied Forces attack on Germany).

67. MCFARLAND, *supra* note 2, at 76.

68. *Id.* at 77; SCHAFFER, *supra* note 55, at 25-26; SHERRY, *supra* note 36, at 29-30. Similar arguments were made in Britain by former Chief of the Air Staff Hugh Trenchard, who viewed air war as primarily a contest of "moral tenacity" between two adversaries—"if we could bomb the enemy more intensely and more continually than he could bomb us the result might be an early offer of peace." PHILLIP S. MEILINGER, AIRWAR: THEORY AND PRACTICE 46 (Studies in Air Power, Sebastian Cox ed., 2003).

69. KNELL, *supra* note 36, at 324.

70. Parks, *supra* note 14, at 36.

71. *Id.*

72. *Id.*

damage being confined to them."[73] Although these requirements reflected the customary requirement that the attacker exercise reasonable care, the Chief of the British Air Staff believed that the guidelines would be abandoned once the war started. "I feel sure," he commented, "that this instruction will not last very long, but we obviously cannot be the first to 'take the gloves off.'"[74]

Much as they had in World War I, navigational and target identification inadequacies continued to hamper the accuracy of bombing in World War II. [75] For the first time, aircraft used radio-navigation systems to find their targets, but these systems often had limited range and were vulnerable to jamming or spoofing by the opposing side.[76] Additionally, much as it had in the first war, accurate anti-aircraft fire forced bombers to fly at night and at high altitude to increase their chances for survival.[77] A 1942 study of British nighttime bombing accuracy, known as the Butt Report, found that only two bomber crews in five came within five miles of their targets,[78] and this rate dropped to one in ten among aircraft flying against the most heavily defended zones, such as the Ruhr.[79]

By February 1942, the British had come to doubt the effectiveness of "precise" bombing of industrial and military targets. Instead, Bomber Command's Directive 22 made "the morale of the enemy civil population" and industrial workers living in the vicinity of their factories the primary target of British bombs.[80] The rationale behind this switch was that reduction in industrial production would be affected "at least as much by the indirect effect of damage to services, housing, and amenities, as by any direct damage to the factories."[81] This "city busting" or "de-housing" campaign was based on the principle that, in the words of Hugh Trenchard, the Chief of

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73. *Id.* at 45. The German *Luftwaffe* had similar restrictions; a 1936 training manual noted that "attacks on cities for the purpose of terrorizing the civilian population are absolutely forbidden." SCHAFFER, *supra* note 55, at 35. U.S. President Franklin D. Roosevelt also appealed to both sides on the first day of the war to abstain from deliberate bombing of the civilian population. RALPH BARKER, THE RAF AT WAR 27 (1981).

74. Parks, *supra* note 14, at 45.

75. Even as late as August 1939, performance evaluations of RAF Bomber Command crews found that "Over 40% of [British] bombers were unable to find a target in a friendly city in broad daylight." LAWS OF WAR, *supra* note 4, at 149.

76. RIP & HASIK, *supra* note 39, at 27. For details on the workings of early radio-navigation methods, especially the German *Knickebein*, *X-Verhafen*, and *Y-Verhafen* systems, and the comparable British Gee and Oboe systems, see *id.* at 19-31. *See also* BARKER, *supra* note 73, at 140-41.

77. KNELL, *supra* note 36, at 276-77; MCFARLAND, *supra* note 2, at 166-67.

78. *Id.* at 166.

79. ASTOR, *supra* note 55, at 19.

80. KNELL, *supra* note 36, at 209; MCFARLAND, *supra* note 2, at 166.

81. MCFARLAND, *supra* note 2, at 166.

RAF Bomber Command, "in order to destroy anything it is necessary to destroy everything."[82] Destruction of the actual facilities was unintended but "regarded as a bonus."[83]

The British Air Ministry maintained that these types of attacks did not fall within the bounds of the Hague Conventions because no Hague treaty had been ratified that specifically covered air combat. The Ministry argued that the existence of international law specifically dedicated to land- and sea-based conflict proved that the Hague treaties were to be narrowly construed, leaving air warfare effectively unregulated. Under a similar argument made by a staff lawyer for the German *Luftwaffe,* Hague IV—which stated it protected citizens during the "physical conquest" of their land—was only applicable to ground combat and did not restrict aerial bombing.[84]

The United States entered the air war in Europe in 1943, and initially the U.S. Army Air Corps remained committed to the doctrine of precision bombing developed at ACTS.[85] However, once the U.S. bombing campaign began in earnest, U.S. aircrews encountered many of the same challenges that had prompted the British to adopt area bombing. As in World War I, Allied bombers were forced to fly at increasing altitudes in order to avoid German antiaircraft fire. This added to the difficulties of positively identifying targets, as the Germans engaged in an extensive campaign of distribution and concealment of their military and industrial complexes.[86] Even when the target could be positively identified, bomb accuracy dropped sharply as altitude increased, to a low of just five percent of bombs falling within 1,000 feet of the target where the aircraft was flying in excess of 27,500 feet.[87] Cloud cover had an equally detrimental effect on daylight bombing accuracy; the measured circular error probable (CEP)[88] doubled when cloud cover obscured the target. In clear skies, U.S. bombers had an expected CEP slightly over 1,000 feet, which

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82. *Id.* at 166.

83. KNELL, *supra* note 36, at 77, 218; MCFARLAND, *supra* note 2, at 166.

84. KNELL, *supra* note 36, at 326-27. Furthermore, the German lawyer, later a law professor at the University of Göttingen, argued that even if the bombings were purported to violate international law, the acceptance of the tactic by both sides made it common international law. *Id.*

85. SHERRY, *supra* note 36, at 99.

86. By 1942, Parks notes that German industrial centers such as the Ruhr were "so heavily defended against air attack and military objectives so carefully concealed and camouflaged that it was practically impossible for attacking aircraft to identify and attack particular targets." Parks, *supra* note 14, at 161 (quoting Morris Greenspan, THE MODERN LAW OF LAND WARFARE 335-36 (1959)).

87. MCFARLAND, *supra* note 2, at 174.

88. The CEP is a measure of the average bomb miss; or the distance in which a bomb could be expected to travel off its intended impact point. It is the "radius of a circle that contains 50 percent of all the randomly varying statistical bomb impacts occupying a two dimensional area." RIP & HASIK, *supra* note 39, at 214.

increased to 1,200 feet at fifty percent cloud cover, and almost 2,000 feet through completely overcast skies.[89]

Ironically, the development of airborne radar navigation systems capable of all-weather operation did nothing to improve precision bombing. Radar could detect large landmarks—such as cities—in even the worst weather, but it did not have sufficient resolution to pick out specific targets within those cities. However, because the Air Corps needed to maintain the pressure of the bombing campaign despite the persistently overcast European skies, Air Force Chief of Staff General 'Hap' Arnold authorized the Air Corps to bomb German cities using radar when weather or smoke made precise identification of targets impossible.[90] By late 1944, as many as three-fourths of total missions bombed entirely by radar, suggesting that, as far as the Air Corps was concerned, it was better "to bomb badly rather than not at all."[91]

Although the U.S. prohibition against "indiscriminate" bombing remained, as one author notes, "sometimes it was adhered to, often it was not, or it was so broadly reinterpreted as to become meaningless."[92] As analysis of bombing results became available, senior planners from the 8th Air Force quickly became disillusioned with the effectiveness of their "precision" bombing. The chief of the 8th Air Force's planning section noted:

> It became apparent that to destroy, or even to hit, a given target was going to call for a vastly greater weight of [bombs dropped] than had been dreamed of in a pre-war doctrine. Contrary to all expectations, with a few notable exceptions, the strategic bombers . . . seldom succeeded in achieving real precision.[93]

Even Curtis LeMay, who helped develop many of the bombing techniques employed by the 8th Air Force, groused that the results were "stinko."[94]

To correct for their inaccuracy, the Allies were forced to resort to one of two practical approaches—either dropping bigger bombs or sending more aircraft with more bombs. Although the British Royal Air Force employed the former method to a limited degree,[95] it was

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89. MCFARLAND, *supra* note 2, at 39.

90. *Id.* at 178; *see also* LAWS OF WAR, *supra* note 4, at 153.

91. SHERRY, *supra* note 36, at 162.

92. *Id.* at 261. After 1943, U.S. planners were less concerned with protecting the lives of German civilians than they were in inflicting damage which might shorten the war. As stated by Hap Arnold, the United States was not "going to pull its punches because some civilian got killed." KNELL, *supra* note 36, at 81.

93. MCFARLAND, *supra* note 2, at 169-70.

94. *Id.* at 170.

95. 12,000 pound 'Tallboy' and 22,000 pound 'Grand Slam' bombs were used with mixed success by the Royal Air Force against hardened targets such as U-boat pens, bridges, and coastal artillery. RIP & HASIK, *supra* note 39, at 37.

the latter approach that was most often employed after 1944. Because there was no way to guarantee that a single bomb dropped would strike its intended target, huge formations of bombers were employed to carpet bomb an area to increase the chance of a hit. By amassing as many as a thousand aircraft in dense formations, a target area could be struck with tens of thousands of bombs.[96] Although many bombs would be wildly inaccurate, statistically some would have to hit the targets.[97]

The Chief of the British Air Staff proved to be right that the loose legal controls on aerial bombing would not outlast the war. At best, the pre-war international legal standards for aerial warfare were "murky" and not strong enough to constrain states.[98] Given the stakes of the war for the Allies—essentially, national survival—it is not clear that, even if the laws were stronger, states would have complied, especially if that compliance would have limited their military operations.[99] Postwar legal scholars rationalized the erosion of legal compliance by citing the difficulty of drafting laws that would be followed by determined combatants. "It is far easier to moralize about air attacks on civilians, and to offer soothing verbal solutions, and to dismiss target area bombing as probably unlawful, than [it is] to frame rules for the mitigation of human suffering with some hope of belligerent observation amid the realities of modern war."[100] In any event, the war demonstrated that vast numbers of aircraft, rapidly advancing technological capabilities, and the intermixing of war-related industrial targets with urban centers generated a "crisis of discrimination," in which the means for area bombing was present, but the technology to discriminate military targets from civilian areas was not.[101]

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96. MCFARLAND, *supra* note 2, at 172.

97. Following the war, a comprehensive study of the effects of strategic bombing, known as the U.S. Strategic Bombing Survey, provided considerable data on U.S. bombing effectiveness. For example, in its wartime missions against three German synthetic oil factories, the U.S. Air Corps dropped 123,586 tons of bombs to get 19,029 tons within the fenceline of the target facility. Of those bombs, only 4,326 tons actually damaged the facility. *Id.* at 16.

98. LAWS OF WAR, *supra* note 4, at 157.

99. *Id.*

100. Parks, *supra* note 14, at 14 (quoting Julius Stone, LEGAL CONTROLS OF INTERNATIONAL CONFLICT, 627 (1954)); *see also* Michael Howard, *Temperamenta Belli: Can War Be Controlled?*, *in* RESTRAINTS ON WAR: STUDIES IN THE LIMITATION OF ARMED CONFLICT 4 (Michael Howard ed., 1979) ("The military principle of 'economy of force' may sometimes conveniently coincide with the dictates of transcendent moral values, but there is little historical justification for assuming that this will always be the case.").

101. LAWS OF WAR, *supra* note 4, at 140.

D. *Vietnam and Protocol I*

The U.S. way of war has always relied on material and technological superiority over manpower,[102] but the introduction of several new technologies late in the Vietnam war finally allowed air power to overcome the inherent problems of inaccuracy that drove the "crisis of discrimination" in World War II. During the early stages of the war, it became apparent that air forces' ability to strike targets accurately "had increased only incrementally" since World War II.[103] For example, the destruction of the Paul Doumer Bridge in Hanoi required 113 sorties by USAF F-105 fighter-bombers during 1966 and 1967 and the use of 380 tons of bombs.[104] This inability to destroy strategically important bridges such as the Doumer without a substantial expenditure of resources prompted the Air Force to look for methods of improving bomb accuracy.

The development during the mid-1960s of hand-held laser designators, and a guidance system capable of following the beam, offered the first practical solution. The first laser-guided bomb (LGB), known as the Paveway,[105] was initially used in 1968 to strike high-value targets before the bombing of North Vietnam was prohibited by President Johnson.[106] When the moratorium was lifted in May 1972, 16 F-4 fighter-bombers with LGBs destroyed the rebuilt Doumer bridge on a single mission using only seven percent of the number of bombs required by the earlier attack.[107] LGBs were later used with great success in the Linebacker I and II raids in 1972 to cut off the supply lines of the Viet Cong.[108]

Following the end of the Vietnam war, diplomatic conferences hosted by the International Committee of the Red Cross (ICRC) convened to consider the first substantial changes to the law of armed conflict since the 1940s.[109] Over the course of four sessions from 1974 to 1977, a commission of international delegates drafted Protocol I to

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102. VICK, *supra* note 7, at 54.

103. RIP & HASIK, *supra* note 39, at 204.

104. *Id.*

105. Vernon Loeb, *Bursts of Brilliance: How a String of Discoveries by Unheralded Engineers and Airmen Helped Bring America to the Pinnacle of Modern Military Power*, WASH. POST MAG., Dec. 15, 2002, at 6.

106. *Id.*

107. RIP & HASIK, *supra* note 39, at 205; *see also* LAMBETH, *supra* note 52, at 26; LON O. NORDEEN, AIR WARFARE IN THE MISSILE AGE 45, 55 (2002).

108. Belt, *supra* note 13, at 117. Although LGB's reportedly had great effect—with a reported accuracy rate as high as 80 percent—the 21,000 Paveways dropped amounted to less than one percent of the 3.3 million total bombs employed in the conflict. RIP & HASIK, *supra* note 39, at 205; *see also* Loeb, *supra* note 105, at 3.

109. Parks, *supra* note 14, at 75-76.

the Geneva Convention of 1949. Although this Protocol was ratified by many of the major Western powers, after a thorough review of its provisions, the United States opted not to follow suit. Instead, the United States has declared its intention "to be bound by [the provisions only] to the extent that they reflect customary law."[110]

There were a number of factors that motivated this rejection. First, much as in the case of the 1923 Hague Draft Rules, the United States objected to Protocol I's departure from established principles of customary law. Primarily, these alterations involved an attempted shifting of the responsibility for preventing civilian casualties from the defender to the attacker.[111] In addition, the treaty reflected the ICRC's desire to limit warfare to the immediate battlefield and prohibit the use of air power to strike any targets beyond the front lines, regardless of their contribution to the war effort. This reflected the intention of the 1923 Air Protocols and was inconsistent with the U.S. position that civilians, regardless of their location, were legitimate targets when they contributed to the war effort.[112] As such, Protocol I was seen by some observers as a way of making an effective prosecution of the war by an attacker legally impossible by preventing attacks entirely. "Cloaked in a humanitarian guise," Parks noted, "the articles of Protocol I were drafted with a view to offsetting any military advantage a superior enemy force might have—particularly an air power—in attacking another [third world] nation." ICRC officials did nothing to change this perception; one was reportedly heard to say "If we cannot outlaw war, we will make it too complex for the commander to fight!"[113] It is unrealistic to expect, however, that a law of war that is biased against either side would be respected by both sides. As Parks noted, "Any law of war rule that offers the potential for a military advantage . . . is a rule doomed to failure."[114]

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110. VICK, *supra* note 7, at 41 n.3.

111. Danielle L. Infeld, *Precision Guided Munitions Demonstrated Their Pinpoint Accuracy in Desert Storm; But Is a Country Obligated to Use Precision Technology to Minimize Collateral Civilian Injury and Damage?*, 26 GEO. WASH. J. INT'L L. & ECON. 109, 122-23 (1992).

112. Echoing Douhet's theories, it was the U.S. position that aerial bombardment should not be limited purely to the front lines because civilians were being substituted into traditionally military roles—such as an increased military dependence on civilian scientific corps to develop, maintain, and upgrade weapons systems. Parks, *supra* note 14, at 132.

113. *Id.* at 75.

114. *Id.* at 154; *see also* Lt. Colonel William J. Fenrick, *The Rule of Proportionality and Protocol I in Conventional Warfare*, 98 MIL. L. REV. 91, 126 (1982) (hypothesizing that excessively complex, inflexible, or unrealistic restrictions on warfare will inevitably be abandoned by combatants).

E. *The Gulf War and Beyond: Precision Warfare Comes of Age*

Since the Vietnam war, the U.S. military has developed and acquired in excess of twenty different types of precision guided munitions (PGMs), to the cost of more than forty billion dollars.[115] PGMs now come in a wide variety of warhead types, guidance packages, and delivery methods. From short-range glide bombs to long-range cruise missiles, from television guided anti-tank missiles to satellite guided "bunker busters," there are now different types of precision weapons suited for nearly any mission or target. The development of these munitions, and their acquisition by the U.S. military, has led to the capacity for precision warfare—"short, surgical, yet violent mechanized wars"[116]—that can destroy key targets from the air while minimizing the humanitarian costs to the civilian population.

Although precision guided munitions and satellite navigation systems such as the Global Positioning System (GPS)[117] are driving this "revolution in military affairs,"[118] it is the fusion of those systems with intelligence and information technology that allows the U.S. military to be precise in a manner "that makes the sum bigger than all the parts."[119] Precision warfare is more than just the capability to put a bomb through a building window; it is putting a bomb through the *right* building window—a feat that implies an underlying acquisition of actionable intelligence.[120] "Air power . . . is inseparable

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115. Belt, *supra* note 13, at 119. These expenditures have likely increased substantially since the figures were published in 1996, as the United States has fought three air campaigns since then—Kosovo, Afghanistan, and the second Gulf War—after each of which it replaced its stores of PGMs.

116. RIP & HASIK, *supra* note 39, at 12.

117. First launched in 1978, GPS is a constellation of 24 satellites that allow users to determine their position. By calculating the delay in radio signals sent by these satellites, handheld GPS receivers on earth can triangulate the receiver's longitude and latitude. *Id.* at 68-100; *See also* Loeb, *supra* note 105, at 6.

118. Charles J. Dunlap, *The Revolution in Military Affairs: Air Force Legal Professionals in 21st Century Conflicts*, 51 A.F. L. REV. 293, 293 (2001). *See generally* Eliot A. Cohen, *A Revolution in Warfare*, FOREIGN AFF., Mar.-Apr. 1996, at 37.

119. LAMBETH, *supra* note 52, at 152.

120. A number of recent 'friendly fire' mishaps have illustrated the difference between accuracy—the capability of reliably hitting targets—and precision, the capability to hit the right target. For example, GPS-guided weapons are only as good as the target coordinates programmed into them; due to an error caused in part by out-of-date maps, U.S. bombers dropped three JDAM's on the Chinese Embassy in Kosovo in 1999. In Afghanistan in 2001, three U.S. Special Forces soldiers were killed and the future President of Afghanistan, Hamid Karzai, was injured when a battery failure in a GPS receiver unit reset the target coordinates to the receiver's own location. *See* Mark Thompson, *The Tools of War: Expecting a Rerun of Gulf War I? Think Again, Thanks to High Tech and Smart Bombs*, TIME, Oct. 21, 2002 at 52, 54; Mike Toner, *Warfare Tests*

from battlespace information and intelligence,"[121] making precision more than an exercise in accurate bombing. Precision is based on the knowledge of "what to hit and where to find it. It is now almost a cliché that airpower can kill anything it can see . . . it is less widely appreciated that it can kill *only* what it can see."[122]

This dramatic improvement in U.S. capabilities was first put to the test in the 1991 Gulf War. Although the media portrayed the air campaign as being overwhelmingly precise, only 6.7 percent of bombs used were actually guided.[123] However, the press's depiction of the accuracy of these weapons was not overstated. As many as eight-five percent of PGMs reportedly hit within ten feet of their aim points,[124] while unguided "dumb" bombs hit the target only twenty-five percent of the time.[125] Although only representing a minority of the total bombs dropped, the achievement of aerial pinpoint accuracy finally fulfilled what was sought by ACTS theorists some sixty years prior. The victory, noted General Michael Dugan, former Chief of Staff for the U.S. Air Force, "was a vindication of the old concept of precision bombing; the technology [has] finally caught up with the doctrine."[126]

A string of successive regional conflicts during the 1990s allowed the military to incorporate PGMs further into their operations. During the 1999 Kosovo conflict, for example, only about thirty-four percent of the 23,614 bombs dropped[127] were PGMs, but those weapons struck sixty-four percent of their targets.[128] Kosovo was also significant in that it marked the introduction of the GBU-31 Joint Direct Attack Munition (JDAM). No weapon better symbolizes the aims and capabilities of precision warfare than the JDAM. Although not as precise as a laser-guided bomb, it is able to steer itself by GPS to any target, even through inclement weather or thick smoke. JDAMs can be dropped as far as fifteen miles away from the target and from altitudes exceeding 35,000 feet.[129] This stand-off capability offers some degree of protection to pilots, who would otherwise have

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New Technology: Afghan Conflict Proves Effectiveness, Exposes Pitfalls of Smart Weapons, ATLANTA JOURNAL CONSTITUTION, Sept. 2, 2002, at 4A. Such errors are known as "targeting process error" in military jargon. *See* Michael Puttré, *Satellite-Guided Munitions: Highly accurate yet affordable strike weapons, proved in Afghanistan, are the latest upgrades to America's arsenal*, SCI. AM., Feb. 2003, at 66, 73.

121. LAMBETH, *supra* note 52, at 9.

122. *Id.*

123. RIP & HASIK, *supra* note 39, at 212.

124. Belt, *supra* note 13, at 117.

125. Infeld, *supra* note 111, at 128.

126. Michael Kelly, *The American Way of War: The Third of Three Essays on the Revolution in Air Power*, THE ATLANTIC MONTHLY, June 2002, at 16-17.

127. NORDEEN, *supra* note 107, at 257.

128. Belt, *supra* note 13, at 135.

129. Puttré, *supra* note 120, at 68-69.

to release a laser guided weapon close to their target and within reach of air defenses.

JDAMs are designed to be accurate to within ten to fifteen meters,[130] but some sources suggest they may in fact regularly impact within four to six meters of their target coordinates,[131] depending on the quality of the GPS signal.[132] Developed as "a moderately accurate weapon that would cost so little that it could replace almost all unguided bombs,"[133] the JDAM has succeeded in becoming an almost ubiquitous weapon for the U.S. military. Assembled from a conventional "dumb" one- or two-thousand pound bomb and a strap-on guidance unit and fins, the JDAM costs as little as $18,000.[134] This meager cost has allowed the military to purchase them in vast numbers,[135] raising the possibility that unguided bombs may eventually be completely phased out in favor of guided weapons.

During more recent conflicts in Afghanistan and Iraq, the majority of munitions employed were PGMs. About sixty percent of all bombs dropped in Afghanistan were guided,[136] nearly all of them GPS-guided JDAMs.[137] Similarly, Administration officials stated that they were aiming for a one hundred percent PGM usage rate in the opening days of the Second Gulf War,[138] although the actual utilization rate was reportedly about seventy percent.[139] Additionally, JDAMs have now been adapted to fit into U.S. heavy bombers, each of which hold either sixteen or twenty-four of the 2000-pound version of this weapon. Placing more guided bombs on fewer aircraft allows for more targets to be attacked with fewer aircrews—reducing the risk to U.S. servicemen by putting less of them in harm's way. In the Gulf War, explained CENTCOM[140] commanding General Tommy Franks,

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130. RIP & HASIK, *supra* note 39, at 236.

131. Loeb, *supra* note 105.

132. Planned upgrades will reportedly also improve the accuracy of the JDAM to a 3m (10ft) CEP by boosting the signal through ground-based differential corrections and adding an infrared seeker. RIP & HASIK, *supra* note 39, at 238-40.

133. Belt, *supra* note 13, at 122.

134. *Afghanistan: First Lessons*, JANE'S DEF. WKLY., Dec.19, 2001, at 18-21. This cost includes only the guidance system and fins—the actual "dumb" bomb itself would cost another $1000-5000, depending on its size. *See* Puttré, *supra* note 120, at 73.

135. RIP & HASIK, *supra* note 39, at 236.

136. Michael Moran, *Gulf War Lessons, Learned or Not*, MSNBC.COM, *at* http://www.msnbc.com/news/852294.asp; *see also* Thompson, *supra* note 120, at 54.

137. Puttré, *supra* note 120, at 70.

138. Thompson, *supra* note 120, at 52.

139. Terry McCarthy, *What Ever Happened to the Republican Guard?*, TIME, May 12, 2003, at 38, 39.

140. The United States operates all of its armed services from a single combat command structure that is organized around geographic regions. Central Command, known as CENTCOM, is responsible for much of the Middle East, including the Persian Gulf.

"we used 10 airframes to a target. Now we assign two targets to an aircraft."[141]

In the coming years, the Air Force is looking for ways further to increase their lethality against targets, while decreasing collateral damage. One of the avenues being pursued is the development of a variety of smaller guided weapons. The current 1000- and 2000-pound JDAMs will soon be joined by a 500-pound version. This smaller bomb would have a number of advantages over its larger brethren. First, assuming similar fuse and warhead selection, it poses less chance that an attack would injure civilians in the vicinity of the target. Additionally, smaller munitions allow more bombs to be carried on a single aircraft, reducing the number of missions that need to be flown and the corresponding risk to aircrews. Other, even smaller bombs are in development, such as the 250-pound Next Generation Small Diameter Bomb (SDB). Less than six feet long and six inches in diameter, the SDB has the same penetration capabilities as a 2000-pound bomb, but uses only fifty pounds of explosive.[142] The SDB could attack eighty-five percent of targets now struck with thousand-pound bombs,[143] even further reducing both the risk of unintended damage and the number of missions to be flown.[144]

In sum, a number of conclusions can be drawn about the development of both the law and technology of aerial bombing. This type of warfare has been plagued by problems of inaccuracy and target discrimination until the very recent past. Difficulties with navigation, weather, enemy air defenses, and bomb accuracy prompted combatants in World War II to engage in area bombing to ensure their targets were destroyed. Although the Hague conventions addressed many of these problems in requiring only "reasonable care" in the conduct of an attack, the behavior of both sides fell well below even this standard. In the end, legal considerations such as exercising discriminate attacks against identifiable targets were secondary to the military necessity of ensuring that damage was inflicted upon the enemy's capacity to wage war or upon civilian morale.[145]

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141. Thompson, *supra* note 120, at 53.

142. *Small Diameter Bomb*, GlobalSecurity.Org, *at* http://www.globalsecurity.org/military/systems/munitions/sdb.htm.

143. Ron Laurenzo, *B-2 To Drop More, Smaller Smart Bombs*, DEF. WEEK, Dec. 23, 2002, at 3. Once placed into the inventory in 2004, as many as eighty 500-pound JDAM's (GBU-38) could be dropped against different targets from a single B-2. Similarly, a B-2 could potentially hold 'hundreds' of SDB's, barring other practical considerations such as length of time the bomb bay doors could remain open. *Id.*

144. Lorenzo Cortes, *Britain Interested in SDB, But Boeing Concentrating Efforts on Air Force Use First*, DEF. DAILY, June 6, 2003, at 0; *see also* Globalsecurity.org, *supra* note 142.

145. Post-war studies of bombing accuracy finally disproved the myth of the effectiveness of morale bombing. The U.S. Strategic Bombing Survey (USSBS) established that the targets whose destruction contributed the most to the end of the

The collective shock over the scope of destruction in World War II has effectively kept the standard of customary law at its pre-1939 state. Historically, military necessity has trumped international legal principles when there is a sufficiently vital national interest at stake. In World War II, the dire threat to national security served as justification for bombing wide areas, despite the harm to civilian populations. The technological developments seen in recent years, however, have resolved the problems that caused area bombing to be employed. The introduction of weapons capable of reliably hitting specific targets has helped to overcome the root problems that drove World War II's "crisis of distinction." Carpet bombing was employed only when both sides believed that respect for noncombatants and hitting the target were mutually exclusive; precision warfare has now made the accomplishment of both goals obtainable.

III. THE RULES OF WARFARE

There is general agreement on several basic customary norms that guide the use of military force under the law of war—military necessity, proportionality, distinction, and humanity.[146] These doctrines are derived from a number of different sources, including international treaties and customary international law. These interlocking principles serve both functional and humanitarian goals,[147] but are unanimous in their adherence to a single core value—that "[t]he right of belligerents to adopt means of injuring the enemy is not unlimited."[148]

A. *Military Necessity*

Of the customary norms, the first, necessity, is "the principle which justifies measures of regulated force not forbidden by international law which are indispensable for securing the prompt submission of the enemy, with the least possible expenditures of economic and human resources."[149] The doctrine of limiting wartime

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war were not German population centers, but instead specific military facilities, such as transport facilities and oil infrastructure. *See* LAWS OF WAR, *supra* note 4, at 158.

146. OPERATIONAL LAW, *supra* note 10, at 8; *see also* VICK, *supra* note 7, at 42.

147. OPERATIONAL LAW, *supra* note 10, at 8.

148. Hague IV, *supra* note 26, art. 22; *see also* Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts, June 8, 1997, art. 35(1), 1125 U.N.T.S. 3, 21 [hereinafter Protocol I].

149. VICK, *supra* note 7, at 42 (quoting U.S. DEPARTMENT OF THE AIR FORCE, INTERNATIONAL LAW—THE CONDUCT OF ARMED CONFLICT AND AIR OPERATIONS, Air Force Pamphlet 110-31, November 1976, at ¶¶ 1-3(a)1.). This definition suggests that a

attacks to those objectives directly linked to the enemy's ability to wage war was first codified in the 1863 Lieber Code.[150] "Military necessity admits of all direct destruction of life or limb of armed enemies, and of other persons whose destruction is incidentally unavoidable in the armed contests of the war."[151] Modern definitions have emphasized the efficient use of force against those targets—military objectives—that have a substantial effect upon the enemy's ability to fight.[152]

Most modern international efforts to clarify relevant terms such as "military objective" and "military necessity" have not been successful. States have historically preferred to define such terms themselves[153] in light of the potential impacts an adverse construction could have upon their ability to conduct operations. The United States has generally relied on Protocol I's definition of a military objective as being "limited to those objects which by their nature, location, purpose, or use make an effective contribution to military action whose total or partial destruction, capture or neutralization in the circumstances ruling at the time, offers a definite military advantage."[154] U.S. Operational Law Handbooks indicate military objectives "by their nature" include all sites or items capable of direct combat operations, or facilitation of such operations—for example, combatants, vehicles, fortifications, supply depots.[155] Objectives which contribute "by their location" would include terrain features that are critical for the success of military operations, such as narrow mountain passes and bridges over which a main supply route would pass.[156] Objectives "by their purpose" would be dual-use items used in direct support of military operations, such as civilian buses used to carry troops or civilian factories producing arms or arms

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balancing of target selection, means of attack, and an assessment of the probability of success are required in order to insure force is directed only at military targets. *See* Infeld, *supra* note 111, at 121.

150. *See* Parks, *supra* note 14, at 7.

151. Lieber Code, *supra* note 1, art. 15.

152. U.S. Army Field Manuals provide that "There is no prohibition of general application against bombardment from the air of combat troops, defended places, or other legitimate military objectives." *See* U.S. ARMY FIELD MANUAL 27-10, LAW OF LAND WARFARE, art. 42 [hereinafter FM 27-10].

Furthermore, military necessity allows force to be used in self-defense against those forces who commit hostile acts or demonstrate hostile intent against U.S. forces, providing, in the words of the Caroline standard, that "the necessity of that self-defense is instant, overwhelming and leaving no choice of means and no moment for deliberation." U.S. ARMY FIELD MANUAL 27-100, LEGAL SUPPORT TO OPERATIONS, Mar. 1, 2001, § 8.2.5 [hereinafter FM 27-100].

153. LAWS OF WAR, *supra* note 4, at 140. The United States is no different, and prefers a liberal construction of "military objective" to include non-military sites that are being used for military purposes, or otherwise contributing to the war effort. VICK, *supra* note 7, at 50.

154. OPERATIONAL LAW, *supra* note 10, at 8.

155. *Id.*

156. *Id.*

components.[157] Objectives "by their use" could include dual-use civilian items adapted to a military use, such as enemy headquarters located in a school, an enemy supply dump in a house, or a hotel billeting troops.[158] These definitions of necessity are not exclusive, however. An attacker could conceivably bomb any target in which that attacker could articulate the definite advantage to be gained. The baseline requirement is only that "[t]here must be some reasonable connection between the destruction of property [or individuals] and the overcoming of the enemy forces."[159] In customary practice, military necessity almost always justifies the targeting of military units and bases, power sources, industry, transportation, and command and control (C2) systems.[160]

Although the United States has never ratified Protocol I, it has designated Article 52 as one of the sections it regards as either "legally binding customary international law, or acceptable practice, although not legally binding."[161] Protocol I's limitation of military objectives to "effective contribution to military action"[162] and "definite military advantage,"[163] however, has been criticized by military lawyers for its exclusion of other military gains that cannot be directly quantified.[164] Parks offers up the 1942 Doolittle Raids on Tokyo and the 1972 Linebacker bombing campaign on Hanoi as examples of military operations that generated a morale, diplomatic, or political gain, rather than a discernible capture of territory.[165] To exclude gains other than the physical capture of ground is to ignore much of the nature of armed combat; as suggested by Parks, "Wars are not simply acts of violence. They are acts of persuasion or of discussion; and although the threat of destruction is normally a necessary part of the persuading process, such destruction is only exceptionally regarded as an end to itself."[166]

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157. *Id.*

158. *Id.*

159. Michael N. Schmitt, *Bellum Americanum: The U.S. View of Twenty-First Century War and its Possible Implications for the Law of Armed Conflict*, 19 MICH. J. INT'L L. 1051, 1083 (1998); *see also* FM 27-10, *supra* note 152, at 56, 58.

160. Infeld, *supra* note 111, at 122.

161. OPERATIONAL LAW, *supra* note 10, at 13. Military necessity was also cited by the International Court of Justice in *Nicaragua v. United States* as binding customary international law. Military and Paramilitary Activities (*Nicar. v. U.S.*), 1986 I.C.J. 14, 122 (June 27). "[E]ven if the United States activities in question had been carried on in strict compliance with the canons of necessity and proportionality, they would not thereby become lawful . . . ." *Id.*

162. Protocol I, *supra* note 148, art. 52(2).

163. *Id.*

164. Parks, *supra* note 14, at 141-43.

165. *Id.*

166. *Id.*

In judging whether the connection between the target struck and military gain has been met, the commander's action is evaluated only in light of the information available at that time.[167] Known as the Rendulic Rule,[168] this standard generally allows the destruction of property on the basis of urgent military necessity,[169] provided the commander did not rush to judgment. As suggested by U.S. Operational Law Handbooks, before claiming necessity, the commander must consider factors such as available time and personnel and prevailing combat conditions, and then "gather information to determine whether the target [is] a military objective and [whether] the incidental damage would [ ] be appropriate" before acting "reasonably" on the information.[170]

B. *Discrimination (Distinction)*

Discrimination is defined as "the necessity of distinguishing between combatants, who may be attacked, and noncombatants, against whom an intentional attack may not be directed, and between legitimate military targets and civilian objects."[171] It dictates that parties to a conflict shall direct their operations only against combatants and military objectives[172] and abstain from destruction not "imperatively demanded by the necessities of war."[173] Discrimination generally precludes intentional destruction and collateral damage that is clearly disproportionate to the military advantage gained in the attack of military objectives.[174] Additionally,

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167. OPERATIONAL LAW, *supra* note 10, at 10.

168. German General Lothar Rendulic was charged by the Nuremberg Court with carrying out a 'scorched earth campaign' in the Norwegian province of Finnmark. In announcing his acquittal, the court stated:

> There is evidence . . . that there was no military necessity for this destruction and devastation. An examination of the facts in retrospect can well sustain this conclusion. But we are obliged to judge the situation as it appeared to the defendant at the time . . . .The course of a military operation by the enemy is loaded with uncertainties . . . .It is our considered opinion that the conditions, as they appeared to the defendant at the time were sufficient upon which he could honestly conclude that urgent military necessity warranted the decision made.

Parks, *supra* note 14, at 3.

169. FM 27-10, *supra* note 152, arts. 56, 58.

170. OPERATIONAL LAW, *supra* note 10, at 10.

171. GULF WAR REPORT, *supra* note 6, at 611.

172. Protocol I, *supra* note 148, art. 48; OPERATIONAL LAW, *supra* note 10, at 10.

173. Hague IV, *supra* note 26, art. 23(g).

174. GULF WAR REPORT, *supra* note 6, at 611. In addition to its ties to proportionality, discrimination is intertwined with the principle of military necessity, as it prohibits the intentional destruction of civilian objects unconnected to military gain. *See also* GREEN, *supra* note 8, at 120 (suggesting incidental injuries to

discrimination forbids deliberate attacks against cultural or humanitarian sites; Article 27 of Hague IV offers protection from attack to "buildings dedicated to religion, art, science, or charitable purposes, historic monuments, hospitals, and places where the sick and wounded are collected, provided they are not being used at the time for military purposes."[175]

Discrimination also establishes a burden of care in the selection and use of certain weapon types; opposing sides may not use weapons that are incapable of discrimination between combatants and civilians.[176] Protocol I forbids "indiscriminate attacks,"[177] which cannot be "directed at a specific military objective,"[178] or "employ a method or means of combat the effects of which cannot be limited as required."[179] Alternatively, indiscriminate attacks are those which generate excessive collateral damage in relation to military advantage gained[180] and "consequently in each case are of a nature to strike military objectives and civilians or civilian objects without distinction."[181] Discrimination is tied to the intent of the attacker and defined not "by the amount of the devastation or the number of deaths, but by . . . what is deliberately intended and directly done."[182]

Protocol I, although never ratified by the United States, contains several provisions applicable to discrimination that have been generally adopted by the U.S. military as non-binding acceptable practice. Article 48 requires that "the Parties to the conflict shall at all times distinguish between the civilian population and

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noncombatants are acceptable providing harm done is proportional to military gain achieved).

175. Hague IV, *supra* note 26, art. 27; *see also* GREEN, *supra* note 8, at 120.

176. *See* Schmitt, *supra* note 159, at 1075 (noting that this principle may become more difficult to implement as line between combatants and non-combatants blurs).

177. Protocol I, *supra* note 148, art. 51(4).

178. *Id.* art. 51(4)a.

179. *Id.* art. 51(4)c.

180. *Id.* art. 51(5)b.

181. OPERATIONAL LAW, *supra* note 10, at 10. An excellent example of an indiscriminate weapons system is the Scud ballistic missile, which was used by the Iraqis to attack Israel in the 1991 Gulf War. This weapon is incapable of accuracy that would allow the proper selection of military targets over the civilian population—its CEP is sufficiently large to make any degree of discrimination effectively impossible.

182. Parks, *supra* note 14, at 5. For this purpose, all U.S. weapons, weapons systems, and munitions must be reviewed by military attorneys to determine their legality under this requirement. *See* OPERATIONAL LAW, *supra* note 10, at 12. This review determines whether the weapon is impermissibly indiscriminate by querying whether the suffering caused by the use of the weapon "needless, superfluous, or grossly disproportionate to the advantage" gained by its use. *Id.* at 12-13. One author notes that what is 'disproportionate' is often subjective, however. For example, a hooked bayonet developed by the Pentagon in the 1960's was dismissed by lawyers who felt it to be too cruel, but weapons capable of inflicting mass devastation—such as nuclear weapons--remain in the military's arsenal. Esther Schrader, *War, on Advice of Counsel*, L.A. TIMES, Feb. 15, 2002, at A1.

combatants . . . and accordingly shall direct their operations only against military objectives."[183] Article 51 echoes these protections, providing the civilian population "general protection" against military operations,[184] and requiring that civilians "shall not be the object of attack,"[185] whether in order to kill or to spread terror.[186] This protection lasts so long as civilians do not take a "direct" role in hostilities.[187]

Most importantly, Protocol I imposes a precautionary duty in bombardment; Article 57 states that attackers must "[t]ake all feasible precautions in the choice of means and methods of attack with a view to avoiding, and in any event to minimizing incidental loss of civilian life, injury to civilian and damage to civilian objects."[188] Attackers must verify their target, take due precautions to minimize collateral damage, refrain from indiscriminate attacks, and abort if excessive casualties would result.[189] In the case of doubt about whether an individual is a combatant or noncombatant, Protocol I requires the attacker to treat him as a civilian.[190]

Senior military lawyers have expressed their reservations about the above requirement that the attacker, not the defender, take precautions to minimize civilian casualties. They believe this standard departs from the provision of customary law establishing that civilian casualties from bombardment are the responsibility of the defender, providing the attacker has exercised "reasonable care." The standards set out in Articles 48 through 58 of Protocol I, argues Parks, "clearly were intended to raise the standard of care for the

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183. Protocol I, *supra* note 148, art. 48.

184. *Id.* art. 51(1).

185. *Id.* art. 51(2).

186. *Id.*

187. The ICRC interpretation of the scope of "direct" involvement in hostilities is as follows:

> 'Direct' participation means acts of war which by their nature of purpose are likely to cause actual harm . . . . It is only during such participation that a civilian loses his immunity and becomes a legitimate target. Once he ceases to participate, the civilian regains his right to the protection under this section.

Parks, *supra* note 14, at 118. Senior military lawyers object to this narrowly construed view of combatant status, as it would make guerillas or partisans within the civilian population immune to attack the moment they cease fighting. This 'revolving door' definition of combatant would allow them to hide among civilians and cross the line separating the two as they engage and then disengage in combat operations. *See id.* at 117-19.

188. Protocol I, *supra* note 148, art. 57(2)ii.

189. *Id.* art. 57(2). It is important to note, however, that the presence of civilians does not make a target immune from attack—as established by Hague IV; legitimate targets may be struck at any time. An attacker must only exercise 'ordinary care' in attacking the target—he is not responsible for the actions of the defender. *See* Infeld, *supra* note 111, at 120-21.

190. Protocol I, *supra* note 148, art. 50.

attacker while lowering it for the defender, thereby shifting the burden for minimization of collateral civilian casualties to the party with the least control over the civilian population."[191] The duty to protect the civilian from unnecessary harm is a shared one; the attacker's role is to exercise reasonable care and to direct his attacks only against military targets. However, it is primarily the defender's duty to control the civilian population to prevent injury.[192]

According to Protocol I, the parties must "endeavor to remove the civilian population, individual civilians and civilian objects under their control from the vicinity of military objectives," and "[a]void locating military objectives within or near densely populated areas."[193] This obligation stems from the defender's unhindered access to the population and his ability to remove them from the proximity of military objectives.[194] Furthermore, "[t]he presence or movements of the civilian population or individual civilians shall not be used to render certain points or areas immune from military operations, in particular in attempts to shield military objectives."[195]

Legitimate actions taken by the defender—such as the dispersion of production facilities, the use of camouflage, and the emplacement of air defenses—may further shift the division of responsibility for protecting non-combatants towards the defender. Parks notes "[t]he purpose of enemy defenses is not necessarily to cause aircraft losses; the defender has accomplished his mission if he makes the attacker miss his target."[196] Thus, these actions can be viewed as a deliberate effort to cause an attack to be less discriminate—a knowing effort to place the defender's civilian population at greater risk in order to protect the military objective.[197] Parks concludes that these actions are an "intervening cause for which the attacker is not responsible."[198] As a result, the duty of care of the attacker is reduced because the defender is actively trying to undermine his efforts. "A party to a conflict which places its own citizen in positions of danger by failing to carry out the separation of military activities from civilian activities necessarily accepts, under international law, the results of otherwise lawful attacks upon valid military objectives in their territory."[199]

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191. Parks, *supra* note 14, at 201-02.
192. *Id.* at 55.
193. Protocol I, *supra* note 148, art. 58(a)-(b).
194. *Id.* art. 51; GULF WAR REPORT, *supra* note 6, at 616.
195. Protocol I, *supra* note 148, art. 51(7).
196. Parks, *supra* note 14, at 191.
197. *Id.* at 29, 52.
198. *Id.* at 29.
199. *Id.* at 162.

Military lawyers further note their objections to Protocol I's broad construction of the status of "noncombatant," which includes every civilian not currently involved in combat operations.[200] The United States has opposed this definition, which excludes as legitimate targets civilians essential to the war effort of the enemy, such as workers in the defense industry or scientists developing weapons systems. Protocol I fails to account for what Parks calls the "commingling of the civilian population and civilian objects with military objectives, and/or the dual use of certain objects for civilian and defense-related purposes."[201] Instead, the United States supports an alternative view that "[e]conomic targets that indirectly but effectively support and sustain the enemy's warfighting capability may . . . be attacked,"[202] a stance that is consistent with the practice of nations in both World War I and World War II.

Protocol I's most direct protections for the civilian do the most to confirm Parks's suspicions that it is intended directly to disadvantage the attacker. Article 51(8) provides that violations of the Protocol by one party do not release the opposing party from its obligations,[203] a provision that seems to punish the complying party for an adversary's bad faith. Furthermore, forcing the attacker to deal with a presumption that all targets of a questionable nature are noncombatants,[204] as Article 50 of Protocol I provides, requires the attacker to confirm the identity of individuals in an area outside of his direct control. This is rarely practical—because of speed and altitude, an airborne attacker is not in a position to identify individuals in target zones, unless, as Parks notes, the individual "obligingly waves a rifle or shoots at him."[205] The customary provision that the attacker need only exercise "reasonable care" in attacking the target reflects this reality; Protocol I's higher standards do not. Likewise, Protocol I's requirement that in case of doubt about the military or civilian nature of a cultural site—such as a church and hospital[206]—offers a significant advantage to an unscrupulous defender by encouraging him to place potential military targets within cultural sites.

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200. *Id.* at 134.
201. *Id.* at 152.
202. Schmitt, *supra* note 158, at 1076.
203. Protocol I, *supra* note 148, art. 51(8).
204. *Id.* art. 50.
205. Parks, *supra* note 14, at 116.
206. Protocol I, *supra* note 148, art. 52(3); *see also* GULF WAR REPORT, *supra* note 6, at 616.

C. *Proportionality*

The doctrine of proportionality prohibits military action in which the negative effects of an attack outweigh the military gain caused by the damage to the enemy,[207] as well as any means of attack that is "unreasonable or excessive."[208] Protocol I best reflects this principle, prohibiting any "attack which may be expected to cause incidental loss of civilian life . . . which would be excessive in relation to the concrete and direct military advantage anticipated."[209] In providing that attacks against legitimate targets are permissible so long as civilian deaths are not excessive, proportionality implies that some degree of collateral damage is unavoidable.[210] In this regard, proportionality "accommodates the needs of humanity with the practical inevitabilities of warfare"[211] in its attempts to minimize noncombatant deaths. Additionally, by focusing its analysis strictly on military gain, proportionality recognizes the legitimacy of attacking dual-use sites, such as roads, ports, or power plants.

The standard for establishing the proportionality of an attack under Article 57 of Protocol I turns on an evaluation of reasonable care.[212] Historically, collateral damage has been the product of three factors—a lack of full knowledge about the target, an inability to direct only the minimum amount of force needed to destroy the target, and an inability to guarantee the weapon hits only the target.[213] Therefore, when making an evaluation of proportionality, an observer must consider the care taken by the attacker in the target selection, the method of the strike, and the determination of the strategic or tactical advantage to be gained from the target's destruction.[214] Planners must determine if the loss of life that would

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207. GULF WAR REPORT, *supra* note 6, at 611; *see also* Fenrick, *supra* note 114, at 125.

208. Bonafede, *supra* note 10, at 168.

209. Protocol I, *supra* note 148, art. 51(5)b. Proportionality was also cited by the International Court of Justice in Nicaragua v. United States as binding customary international law. *See* Military and Paramilitary Activities (*Nicar. v. U.S.*), 1986 I.C.J. 14, 122 (June 27).

210. *Id.*

211. Fenrick, *supra* note 114, at 92.

212. OPERATIONAL LAW, *supra* note 10, at 9; *see also* Protocol I, *supra* note 148, art. 57(1).

213. Schmitt, *supra* note 158, at 1080.

214. Randy W. Stone, *Protecting Civilians During Operation Allied Force: The Enduring Importance of the Proportional Response and NATO's Use of Armed Force in Kosovo*, 50 CATH. U.L. REV. 501, 522 (2001).

result from a proposed attack would be excessive in relation to the "concrete and direct" military advantage that would be gained.[215]

In making this determination before launching an attack, a commander must act "reasonably," taking all prudent steps to ensure that targets are identified as military objectives and that they may be attacked without disproportionate collateral damage.[216] Because the Rendulic Rule is applied, the determination of reasonableness is based only on the information available to the commander at the time.[217] Article 57 of Protocol I requires planners to cancel an attack when they know disproportionate casualties would result,[218] meaning that a violation of this doctrine would only result with the launching of an attack that the commander knows or should have known would cause disproportionate collateral damage. Schmitt notes, however, the increasing complexity of determining which attacks would have disproportionate results, based on the uncertain nature of intelligence, wider range of available weapons, and difficulty in identifying the target.[219] However, this uncertainty as to the probable results of a strike does not allow one combatant to use the principle of proportionality as a shield against another. Warfare is "not subject to some sort of 'fairness doctrine' and neither the law of war . . . nor the concept of proportionality . . . imposes a legal or moral obligation on a nation to sacrifice manpower, firepower, or technological superiority over an opponent."[220]

One of the most difficult legal questions in considering what is "disproportionate" is how attenuated the harm caused may be in relation to the initial strike. For example, in a sophisticated and urbanized society, it is often difficult to determine in advance how an attack on a single subsystem will affect a greater network.[221] Both military and civil sectors of society may rely on common power sources, transportation, and telecommunications infrastructure—and a military attack on those systems, although justifiable under military necessity, may have far-reaching repercussions on the civilian sector. One such example is deaths caused by a strike against a power plant that keeps the national air defense system in operation. If civilians died not because of the bomb itself, but because the destruction of the plant caused life support equipment in the

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215. OPERATIONAL LAW, *supra* note 10, at 9; *see also* FM 27-10, *supra* note 152, art. 41.

216. FM 27-10, *supra* note 152, art. 41; OPERATIONAL LAW, *supra* note 10, at 9.

217. OPERATIONAL LAW, *supra* note 10, at 10.

218. Protocol I, *supra* note 148, art. 57(2)b.

219. Schmitt, *supra* note 159, at 1080-81.

220. Infeld, *supra* note 111, at 119-20.

221. VICK, *supra* note 7, at 50; *see also* Eliot A. Cohen, *The Mystique of U.S. Air Power*, FOREIGN AFF., Jan.-Feb. 1994, at 109; Schmitt, *supra* note 159, at 1082.

critical care ward of a nearby hospital to stop working, should those deaths count towards a finding of disproportionality?[222]

As yet, no consensus has been reached on how far removed from the initial attack harm should be before being included. Some scholars have suggested that the increasing connectivity of network-driven societies will promote a macro-level view of proportionality,[223] while the U.S. military maintains a narrower interpretation whereby only directly-caused civilian deaths are considered.[224] It seems most plausible, however, that a utilitarian approach consistent with current law will eventually be adopted. For example, an analysis might first turn to whether the attacker had employed reasonable care in executing the attack, second, whether the attack was disproportionate based on the information available to the attacker at the time, and, finally, whether the defender failed to take any intervening action which would have protected its citizens.

D. *Humanity (Unnecessary Suffering)*

The U.S. military's Operational Law Handbook notes that one of the primary purposes of the law of war is the "protect[ion of] both combatants and noncombatants from unnecessary suffering."[225] First defined by the St. Petersberg Declaration of 1868, the principle of humanity forbids means of war that "uselessly aggravate the sufferings of disabled men, or render their death inevitable."[226] Article 23 of Hague IV represents the best codification of this doctrine, forbidding the "employ[ment] of arms, projectiles or material calculated to cause unnecessary suffering."[227] This restriction has been held to outlaw weapons that cause unnecessary destruction—such as barbed lances or projectiles filled with glass,[228] but it also upholds the immunity of noncombatants by forbidding any superfluous "suffering, injury, or destruction" not required for the accomplishment of the objective.[229]

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222. Cohen, *supra* note 221, at 121.

223. Schmitt, *supra* note 159, at 1082.

224. VICK, *supra* note 7, at 50 n.24.

225. OPERATIONAL LAW, *supra* note 10, at 8. A minority of scholars have recognized only three customary principles—military necessity, discrimination, and proportionality—excluding humanity. *See* Belt, *supra* note 13, at 156.

226. Declaration of St. Petersberg, Nov. 29, 1868, *available at* http://www.yale.edu/lawweb/avalon/lawofwar/decpeter.htm.

227. Hague IV, *supra* note 26, art. 23(e); *see also* Protocol I, *supra* note 148, art. 35(2).

228. OPERATIONAL LAW, *supra* note 10, at 9; *see also* Schmitt, *supra* note 159, at 1084-85.

229. OPERATIONAL LAW, *supra* note 10, at 13; *see also* Fenrick, *supra* note 114, at 93.

The concept of humanity has also been interpreted to forbid acts that violate "the dictates of public conscience,"[230] and although somewhat subsumed by proportionality and military necessity,[231] humanity parallels the doctrine of discrimination as it forbids the use of indiscriminate weapons incapable of hitting only targets.[232] There has been no agreement, however, on whether armies must always employ the weapon with the least risk of collateral damage.[233] Some believe the use of precision guided munitions should always be required by international law, but the United States has opposed any initiative to make precision weaponry a requirement of the law of war and favors a policy of more flexible weapons choice.[234] Relatively few nations possess sufficient quantities of these weapons or the capability to employ them, however, and it seems illogical to presume that the handful of states with precision weapons—such as the United States, Britain, and to a lesser degree, Russia—should be held to a higher standard of law.

IV. THE RULES OF ENGAGEMENT

A. *What Are RoE?*

The Rules of Engagement (RoE) are a set of rules for the conduct of military operations which impose political, operational, and legal limitations upon commanders.[235] They ensure compliance with

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230. Schmitt, *supra* note 159, at 1084.

231. *Id.*

232. Protocol I, *supra* note 148, art. 51(4).

233. VICK, *supra* note 7, at 44; *see* Belt, *supra* note 13, at 174-75 (finding that there was a customary norm for the use of precision weapons in cities). *But see* Infeld, *supra* note 111, at 140-41 (concluding that the laws of war do not require nations with precision weapons to use them in all circumstances).

234. VICK, *supra* note 7, at 45. The author notes, however, that the United States has generally employed precision weapons for "reasons of politics or military effectiveness." *Id.*

235. FM 27-100, *supra* note 152, § 8.2.3. The formal Department of Defense definition of RoE is "directives issued by competent military authority which delineate the circumstances and limitations under which United States Forces will initiate and/or continue combat engagement with other forces encountered." Lt. Col. W.A. Stafford (USMC), *How to Keep Military Personnel from Going to Jail for Doing the Right Thing: Jurisdiction, ROE & the Rules of Deadly Force*, ARMY LAW., Sept. 2000, at 3; *see also* FM 27-100, *supra* note 152, at § 8.2.2. According to U.S. Army Field Manuals, "RoE are driven by three sets of considerations, policy, legal, and military." The manuals note that these three considerations often overlap; "rules implementing strategic policy decisions may serve and operation or tactical military goal while simultaneously bringing U.S. forces in compliance with domestic or international law." *Id.* at § 8.2.2.

international and domestic law and serve to guide soldiers in the absence of direct orders from their command authority.[236] In a practical sense, "[RoE] are the commander's rules for the use of force . . . specify[ing] the circumstances and limitations in which [they] may engage the enemy,"[237] and are a subset of a larger group of permissible military options allowed by the law of war.[238]

It is U.S. military policy to comply with the law of war to the extent that is "practicable and feasible."[239] This is instituted through a number of Department of Defense directives, including the Standing Rules of Engagement (SRoE). The SRoE, also known as Joint Chiefs of Staff Instruction 3121.01, is a permanent doctrine first issued by the Joint Chiefs of Staff in October 1994.[240] The unclassified enclosure to the SRoE mandates that U.S. forces must comply with the law "in the conduct of military operations involving armed conflict, no matter how the conflict may be characterized under international law."[241] Additionally, it provides that "in those circumstances when armed conflict, under international law, does not exist, law of armed conflict principles may nevertheless be applied as a matter of national policy."[242]

Although the international legal factors that drive RoE are the most obvious, RoE reflect political realities as much as they do legal requirements. The President, in his role as Commander in Chief, often restricts the scope of military action or limits the type of force employed in order to mesh with a policy position or to reflect political or international sensitivities. The United States recognizes that war at its core is "an instrument of policy, [and so] politically imposed rules of

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Although generalities have been made available in the press, the precise rules of engagement are "typically classified due to security reasons," as precise knowledge of the rules U.S. forces fight by might provide an advantage to an adversary. Elaine M. Grossman, *Key Command Banned Nearly All Attacks on Afghan Roads, Bridges,* INSIDE THE PENTAGON, Jan. 9, 2003, at 1.

236. Lt. Commander Guy R. Phillips, *Rules of Engagement: A Primer*, ARMY LAW., July 1993, at 4, 7-8.

237. Major Dawn R. Eflein, *A Case Study of Rules of Engagement in Joint Operations: The Air Force Shootdown of Army Helicopters in Operation Provide Comfort,* 44 A.F. L. REV. 33, 36 (1998).

238. Phillips, *supra* note 236, at 6.

239. OPERATIONAL LAW, *supra* note 10, at 10; *see also* Department of Defense Directive 5100.77, *Law of War Program*, Dec. 9, 1998, at § 4.1 (indicating that it is Department of Defense Policy to ensure that "the law of war obligations of the United States are observed and enforced by the DoD components").

240. William M. Arkin, *The Rules of Engagement*, L.A. TIMES, Apr. 21, 2002, at M1.

241. Chairman of the Joint Chiefs of Staff Instruction, *Standing Rules of Engagement for U.S. Forces*, CJCSI 3121.01A, Jan. 15, 2000, unclassified Enclosure A, & 1(g) [hereinafter, CJCSI 3121.01A].

242. Major Richard M. Whitaker, *Civilian Protection Law in Military Operations: An Essay*, ARMY LAW., Nov. 1996, at 3, 5.

engagement will always be a handmaiden of force employment decisions to ensure that the manner in which force is applied conforms to political objectives and perceived risks."[243] Thus, restrictions on soldiers' actions established in the RoE address the reality that "decisions made by soldiers can have strategic, [and] political implications."[244]

B. *How Are RoE Implemented?*

In order to uphold national law of war obligations and comply with policy directives, the U.S. military has drawn its corps of attorneys, known as the Judge Advocate General (JAG), into much of its decision making process. Throughout the U.S. armed forces military attorneys often sit at the right hand of military commanders, drafting rules of engagement and approving targets.[245] This role stretches back to the aftermath of the My Lai incident, when the Joint Chiefs of Staff first required that all operational plans, contingency plans, and rules of engagement be reviewed by Judge Advocates and be found in compliance with the international law of war and U.S. domestic law.[246]

By Operation Just Cause in 1989, JAGs were serving in planning cells and operations centers,[247] and since the first Gulf War in 1991 they have been major participants in RoE, targeting, and other crucial operational matters. Their purpose is to provide legal guidance to commanders as to limitations affecting the conduct of military operations. This is especially needed in situations involving targeting, where the facts are not always clear, and the obligations under the law of war are most critical. This practice of "operational law,"[248] according to Department of Defense regulations, "places Judge Advocates firmly within the command and control of operations."[249] "I would say Judge Advocates are more intimately

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243. LAMBETH, *supra* note 52, at 50; *see also* CENTER FOR ARMY LESSONS LEARNED (CALL), *ROE Training*, Newsletter 96-6, § 2 [hereinafter CALL newsletter] (indicating that RoE guiding soldiers' actions serve to uphold national policy during armed conflict and ensure that the military instrument of the United States "is indeed employed pursuant to the overarching national political purposes of our nation").

244. *Id.*

245. Vanessa Blum, *JAG Goes to War*, LEGAL TIMES, Nov. 11, 2001, at 1, *available at* http://www.law.com [hereinafter *JAG Goes to War*].

246. Schrader, *supra* note 182; *see also* Vanessa Blum, *From Drafting Wills to Planning War Strategy*, LEGAL TIMES, Sept. 24, 2001, at 13, *available at* http://www.law.com.

247. Dunlap, *supra* note 118, at 296.

248. "Operational law is that body of foreign, domestic, and international law which impacts specifically upon the activities of U.S. forces in war and operations other than war." Lt. Colonel Marc L. Warren, *Operational Law—A Concept Matures*, 152 MIL. L. REV. 33, 36 (1996).

249. FM 27-100, *supra* note 152, at § 8.1.

involved in the team that puts together combat operations than we were two decades ago," stated Air Force Judge Advocate General Major General William Moorman. "Very precise [legal] planning goes into target selection and vetting targets against the law of war."[250] However, the involvement of attorneys in the mission planning process does not mean that the lawyer's judgment supplants the commander's. It is the responsibility of the lawyer to point out legal pitfalls and balance the risk of civilian harm against the military gain,[251] but he must distinguish between advising on the law of war and making decisions on "prudent warfighting" which belong to the commander alone.[252]

Some of the most challenging of these legal analyses are determinations of the legality of attacking fleeting, unidentified targets that must be engaged quickly or else lost. These "emerging targets" get priority in consideration. As explained by Lt. Col. Amy Bechtold, the Deputy Judge Advocate for Central Command's air component command:

> If a building is identified as a target, that building is not going anywhere. . . . Obviously there is more time to collect information . . . . [N]ow, if the target is a building that troops are moving in and out of, the military objective may not be there a few days from now . . . . [but] if we can't get that check done [in time], the target is not hit.[253]

However officials contend that military lawyers are never in a position to stop any attack—"that is the prerogative of [the Commanding General] and other operational commanders alone."[254]

C. *How Does Policy Affect RoE?*

Success or failure in a military operation can have wide-ranging effects—it can alter the course of domestic politics, change the international reputation of the United States, and dramatically affect U.S. foreign policy. As a result, policymakers, regardless of party, have rarely been strangers to the planning of military action. War, as Prussian general Carl von Clausewitz first stated, is merely an extension of political activity, and thus subject to its requirements.

> War is an instrument of policy; it must necessarily bear the character of policy and measure by its standards. The conduct of war, in its greater outlines, is therefore policy itself, which takes up the sword in place of

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250. *JAG Goes to War*, *supra* note 245.
251. *Id.*
252. Dunlap, *supra* note 118, at 304.
253. *Id.*
254. Schrader, *supra* note 182.

> the pen, but does not on that account cease to think according to its own laws.[255]

In the United States, the oft-cited "high-water" mark of civilian policy involvement came during the 1964-68 "Rolling Thunder" air campaign in Vietnam. At that time, President Johnson and Secretary of Defense MacNamara were personally involved in most military operational planning for the war, including target nomination, selection of aircraft weapons loads, dates and times of attacks, and even approach routes of bombers—without regard to strategy, weather, or other operational considerations.[256] Although these practices were roundly condemned in the years immediately following Vietnam,[257] advances in telecommunications have again generated new levels of "political military-dynamics,"[258] where the civilian leadership is a major player in the operational process.

Political leaders in Washington now have the capability to see the same information available to the battlefield commander and can watch events unfold in real time. Although the military would contend that combat is best managed from the front lines,[259] the development of global communications and information technology now allows the highest military echelons, as well as the most senior civilian political leadership, to reach into the battle and exert their authority. As explained by General John D. Jumper, the Chief of Staff of the U.S. Air Force, in "conflicts where you have highly politically

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255. CARL VON CLAUSEWITZ, ON WAR 610 (Michael Howard & Peter Paret eds. & trans., 1984).

256. LAMBETH, *supra* note 52, at 31; *see also* JOHN LEWIS GADDIS, STRATEGIES OF CONTAINMENT: A CRITICAL APPRAISAL OF POSTWAR AMERICAN NATIONAL SECURITY POLICY 247 (1982); Arkin, *supra* note 240.

257. *See* LAMBETH, *supra* note 52, at 50.

> The right lesson to be drawn from the Vietnam experience [in regards to civilian involvement in military planning] is not that political control and restrictive rules of engagement are improper constraints on the use of air power . . . but rather that once reasonable political objectives, strategies, and rules of engagement are decided on, political leaders should stay out of the operational details of force employment in due deference to the trained professionals who know their business best.

Id.; *see also* Arkin, *supra* note 240. Clausewitz would at least partly agree with this conclusion; he believed that policy would not "extend its influence to operational details. Political considerations do not determine the posting of guards or the employment of patrols." VON CLAUSEWITZ, *supra* note 255, at 606. At the same time Clausewitz harshly condemned any effort to make political considerations secondary to military ones. "Subordinating the political point of view to the military would be absurd, for it is policy that has created war. Policy is the guiding intelligence and war the only instrument, not vice versa. No other possibility exists, then, to subordinate the military point of view to the political." *Id.* at 607.

258. RIP & HASIK, *supra* note 39, at 420.

259. Elaine M. Grossmon, *War on Terror Renews Age-Old Puzzle*, INSIDE THE PENTAGON, Jan. 2, 2003, at 1.

sensitive operations going on, the senior leadership wants to have a hand in operational- and tactical-level decisions."[260] Dubbed by some the "the new age of military micro-management,"[261] these practices bring out both the best and worst aspects of the U.S. military system.

On the positive side, by exerting the supremacy of the civilian leadership, top-down political control of the military reinforces the democratic underpinnings of the U.S. military system. Furthermore, by bringing politically-accountable civilian officials into the decision loop, it increases the likelihood that the law of war will be followed. As explained by Reisman and Antoniou,

> Popular perceptions of what the law of armed conflict is, or should be, may become self-fulfilling . . . in modern popular democracies, even a limited armed conflict requires a substantial base of public support. That support can erode or even reverse itself rapidly, no matter how worthy the political objective, if the people believe that the war is being conducted in an unfair, inhumane, or iniquitous way.[262]

As a result, militaries must adhere to the law of war—or at least create the perception of doing so—in order to preserve public and political support for the operation. Fighting lawfully has become more than just a moral or legal requirement; it has become a political necessity.[263]

The ability of U.S. policymakers to make crucial, tactical-level military decisions on a real-time basis also has serious negative ramifications. In situations other than war, the lure of using military force to send a political "message" has a certain seductive appeal to policymakers. Although military force is, at its root, an instrument of politics, lowering the bar for military action so it becomes a mundane political tool has its own set of dangers. Risking lives—either those of U.S. servicemen or civilians in the target zone—for less significant national interests or for fleeting political gain sets a dangerous precedent and can be deeply damaging for the United States' international reputation. Known derisively as "cruise missile diplomacy,"[264] the routine use of air power by policymakers for mundane political ends has been likened to "teenage romance" in that it provides instantaneous policy "gratification" without the commitment of involvement in an outright war.[265]

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260. *Id.*

261. Arkin, *supra* note 240.

262. REISMAN & ANTONIOU, *supra* note 11, at xxiv; *see also* VICK, *supra* note 7, at 52.

263. Dunlap, *supra* note 118, at 294.

264. LAMBETH, *supra* note 52, at 216.

265. *Id.* at 232; *see also* VICK, *supra* note 7, at 39-40 (stating that the "speed and agility of aerospace power, combined with its ability to deliver firepower precisely and with fairly low risk to U.S. personnel . . . often make it the military instrument of choice for decisionmakers").

Furthermore, politicians may not always understand, or care to understand, that "the efficient application of firepower [is not a] substitute for strategy,"[266] and politically expedient choices of action may not always produce a positive military result. One of the most common examples of political needs taking precedence over military strategy is the use of a gradual escalation of force. The slow escalation of military force to send a political message can be politically advantageous as it does not back the opposing state into a corner, encourages the continuation (or resumption) of negotiations, and allows the policymaker to avoid proportionality concerns and international criticism for the use of excessive force. It is not militarily prudent, however, in that it does little to disrupt enemy defensive preparations and may actually strengthen the enemy's resolve by allowing it time to prepare its defenses and adapt to U.S. operational procedures, while suggesting the United States does not have the political will to do what it takes to win.[267] In failing decisively to attack enemy defenses and forces, gradualism as a military strategy also exposes U.S. aircrews to higher levels of risk by forcing them to fly missions against an opponent that remains at full strength. At its core, gradualism ignores the traditional belief that "sharp wars are brief," as first suggested by the Lieber Code and echoed by Douhet, Mitchell, and others. In deliberately extending the length of the war, policymakers may in fact be dragging out the potential human suffering. Unfortunately, as explained by former U.S. Air Force General Ralston, "When the political and tactical constraints imposed on air use are extensive and pervasive—and that trend seems more rather than less likely—then gradualism may be perceived as the only option."[268]

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266. LAMBETH, *supra* note 52, at 52.

267. For example, during the Kosovo campaign, the Clinton Administration's stated intention only to 'degrade' (and by implication, not to destroy) the Serbian military, and its public disavowal of the possibility of a ground invasion probably indicated to Yugoslav President Slobodan Milosevic that the United States did not "have the stomach for a sustained military effort." This perceived U.S. reluctance probably only encouraged Milosevic to stand his ground. *See* IVO H. DAALDER & MICHAEL E. O'HANLON, WINNING UGLY: NATO'S WAR TO SAVE KOSOVO 95 (2000); *see also* LAMBETH, *supra* note 52, at 17 (suggesting that the slow escalation of force employed by the Johnson Administration against North Vietnam during the 1965-1968 Rolling Thunder Campaign, although politically prudent in the short-term, provided the North Vietnamese the time they needed to substantially strengthen their anti-air defenses). Alternatively, the all-out eleven-day bombing Linebacker II raids against North Vietnam in 1972 inflicted serious damage against Hanoi, forcing them back to the negotiating table. *See* NORDEEN, *supra* note 107, at 51-56.

268. LAMBETH, *supra* note 52, at 229.

V. WHERE THE RUBBER MEETS THE ROAD: POLICY AND LAW DRIVING MILITARY OPERATIONS

Examining the air conflicts of the last fifteen years provides ample proof for establishing the scope of policy and legal controls on U.S. military operations. Since the end of the Gulf War, conscientious adherence to the laws of war and Washington's policy requirements have shaped U.S. military operations to minimize unnecessary casualties, prevent media criticism, and defuse international controversy. Typically, these goals have been accomplished through RoE that have limited the choice of targets and method of attack, or attempted to minimize unnecessary friendly or collateral deaths.

A. *Limitation on Choice of Targets and Method of Attack*

During the First Gulf War, exceptional effort was made to respect the law of war during Coalition operations. According to the then Chairman of the Joint Chiefs of Staff General Colin Powell international legal considerations impacted decision making "at every level."[269] Particular attention was paid to the review of proposed target lists "to ensure the consistency of targets selected for attack with United States law of war obligations."[270] In compliance with the principle of discrimination, the Department of Defense drew up a master "no-strike" list that incorporated all civilian sites—such as schools, hospitals, and mosques—within six miles of all target zones.[271] As "planners were aware that each bomb carried a potential moral and political impact,"[272] where risk of collateral damage was too high, the target was not attacked.[273] Furthermore, if pilots were unable visually to confirm the identity of the target, they were required to abort or divert to a secondary target.[274]

CENTCOM also complied with the doctrines of proportionality and humanity by matching targets to weapons to minimize adverse effects.[275] "To the degree possible and consistent with allowable risk to aircraft and aircrews,"[276] the type of weapon used, the time and direction of attack, desired impact point, and degree of force employed

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269. GULF WAR REPORT, *supra* note 6, at 605.
270. *Id.* at 607.
271. *See id.* at 61.
272. *Id.* at 132.
273. *Id.* at 133.
274. *See id.* at 612.
275. *Id.*
276. *Id.*

were all exhaustively choreographed to reduce possible collateral damage.[277] For example, attacks inside Baghdad were conducted only with PGMs,[278] and if a proposed target served both military and civilian purposes, the attack was usually scheduled at night to reduce noncombatant casualties.[279] Additionally, in compliance with Article 27 of Hague IV, Coalition forces generally abstained from attacks on mosques, religious shrines, and archaeological sites. Even where some of these sites could legally have been attacked under the law of war, in some cases the Coalition chose not to do so out of sensitivity to the political consequences or the disproportionate civilian harm and minimal strategic gain that would be generated by their destruction.[280]

Even more stringent precautions were taken during the 1999 Kosovo air campaign. In-depth legal reviews were performed on all potential strike targets—including a complete analysis of their location, military significance, possible collateral damage, and potential risk if the weapon missed the target.[281] This analysis was then, in the words of NATO Commander General Wesley Clark, "repeated for different types of weapons, in search of the specific type . . . and warhead size that would destroy the target and have the least adverse impact elsewhere."[282] Additionally, any target considered potentially sensitive was to be reviewed by the President, the Secretary of Defense, and the Chairman of the Joint Chiefs of Staff.[283] The senior political leadership strictly limited target selection to correspond with their strategy of slowly escalating the intensity of attacks. Intended purely as a "coercive operation . . . with the implied goal of merely inflicting enough pain to convince [Yugoslav President Slobodan] Milosevic to capitulate,"[284] the air campaign initially had only a very limited target base, much of it selected by the White House.[285] Because the White House and its European partners believed Milosevic would swiftly capitulate after only a limited number of essentially "symbolic"[286] airstrikes, in the first few days of the conflict, NATO's civilian leadership had approved only enough targets for three days' worth of bombing, about ninety in all.[287] Another 1,021 were eventually nominated[288] on a running

277. *Id.*
278. *Id.* at 131.
279. *Id.* at 133.
280. *Id.* at 613.
281. *JAG Goes to War*, *supra* note 245.
282. *Id.*; *see also* LAMBETH, *supra* note 52, at 220.
283. *Id.* at 204.
284. *Id.* at 183.
285. RIP & HASIK, *supra* note 39, at 421.
286. DAALDER & O'HANLON, *supra* note 267, at 117.
287. *Id.* at 91, 117.
288. NORDEEN, *supra* note 107, at 255.

basis as the campaign failed to convince Milosevic to withdraw from Kosovo. As a result, high-impact strategic targets such as state-controlled television, power generation facilities, and suspected shelters for the Serbian political elite were not hit until relatively late in the war.[289] Additionally, because the Administration was concerned that a serious collateral damage incident could shake the commitment of some of the more hesitant NATO partners, 125 targets, regardless of their military significance, were removed from the target list by the Clinton Administration due to their proximity to civilian buildings.[290] Restrictions intended to limit civilian casualties were enforced on pilots as well; NATO pilots were instructed to return home with their weapons unless the target could be positively identified. That requirement, in combination with the frequently poor weather, forced many sorties to be diverted or aborted.[291] Overall, the measures undertaken to avoid collateral damage were described by one Air Force Major General as "as strict as I've seen" during his nearly thirty-year career.[292] However, this same exercise of caution generated some friction in the military leadership as to their propriety and effectiveness. Senior U.S. military leaders voiced serious complaints about the slow pace of the campaign, restricted target list, and rules of engagement that "all but proscribed any serious application of air power."[293]

U.S. efforts to minimize collateral damage were no less thorough during the second Gulf War. In accordance with the principles of discrimination and proportionality, specialized "guidance apportionment and targeting teams" reviewed pre-established lists of targets to determine their legitimacy as military objectives, their proximity to civilian structures, and the minimum force that would be required to destroy them.[294] For each attack, computers designed a "weaponeering solution," or a prediction of how to destroy the target while limiting the attack's effect on the surrounding area. To ensure there is no overlap between the bomb's effects and civilian sites nearby, the software modeled the bomb blast based on warhead size and the angle of attack, and displayed that data against a map of civilian sites in the area.[295]

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289. LAMBETH, *supra* note 52, at 185-87; DAALDER & O'HANLON, *supra* note 267, at 117.

290. NORDEEN, *supra* note 107, at 255; LAMBETH, *supra* note 52, at 204.

291. LAMBETH, *supra* note 52, at 204-06.

292. *Id.* at 204.

293. *Id.* at 217.

294. Kim Murphy and Alan C. Miller, *The Team That Picks the Targets: Planners Tout Weapons' High-tech Precision but Admit Mistakes are Made*, L.A. TIMES, Mar. 25, 2003, at A1.

295. *Id.*

In addition to shaping the method of attack, RoE can also reflect a concern for the post-war consequences of a bombing campaign. For example, during the Afghanistan campaign, U.S. target selection was driven by the consequences of any attack on the reconstruction effort. "Things like transportation infrastructure very often are bona fide legal targets," explains Brigadier General Charles Dunlap, Air Combat Command's Staff Judge Advocate. "But we look for ways of minimizing that damage because we're always thinking about what's the next step going to be. What are we going to be doing after the conflict is over?"[296] For example, in Afghanistan in 2001, the RoE reflected concerns that unrestricted attacks on infrastructure would only worsen the suffering of the Afghan people by preventing the timely delivery of humanitarian aid. Washington was also cognizant that during the reconstruction phase they would have to pay to repair any wartime damage.[297] As a result, CENTCOM Commander General Tommy Franks forbid almost all attacks on "sensitive" infrastructure, including electrical power systems, roads, and industry, or any target that had "political implications," such as mosques, even if they were being used for military purposes.[298] Senior officers running the air campaign could not engage these targets without prior approval from Washington.[299] These limitations far exceeded the requirements of the law of war which recognizes any infrastructure with military value as a legitimate target for attack provided the casualties from the attack would not be disproportionate. Additionally, even cultural or religious sites such as mosques may be attacked under international law if they are being used for military purposes.

Similarly, the policy requirement during the second Gulf War to avoid unduly burdening the reconstruction effort also shaped RoE. The White House was reportedly concerned with demonstrating to the Iraqi people that the real target of the war was Saddam's regime, in hopes that this would make them more willing to accept a U.S. military rule until an Iraqi democratic government was established.[300] Thus, dual-use targets with military value such as power generation, telephone networks, and transportation infrastructure such as highway bridges were spared in favor of attacks against regime and regime-associated facilities.[301] Particular attention was paid to protecting the Iraqi oil infrastructure,[302] as the

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296. Grossman, *supra* note 235.

297. *Id.*; *see also* William M. Arkin, *An Old Fashioned Fight*, L.A. TIMES, Jan. 12, 2003, at M1.

298. *Id.*

299. *Id.*

300. Rowan Scarborough, *Officers Fault Air Strategy for Iraqi War as 'Timid,'* WASH. TIMES, Feb. 13, 2003, at A01.

301. *See id.*

302. Arkin, *supra* note 297.

Bush administration deemed these sites critical for funding the post-regime government.

B. *Sensitivities to Friendly Casualties or Collateral Damage*

One of the factors most commonly underscoring policy involvement in military planning since Vietnam[303] has been sensitivity to friendly casualties or collateral damage. Known derisively as "Vietnam Syndrome," or "the Mogadishu Effect," policymakers fear that U.S. casualties will spur a public outcry to end military operations.[304] Ironically, precision warfare might be a victim of its own success in this regard.[305] The relatively bloodless U.S. victories in Iraq, Afghanistan, and Kosovo have created an unrealistic public expectation of swift and low-casualty military campaigns.[306] With a "no casualty campaign" arguably now the de facto standard for any U.S. military operation, air power has come to be judged by a nearly impossible standard. Every instance of unintended collateral damage, no matter how reasonable or unavoidable, is interpreted by some as evidence of a military failure.[307] Likewise, extensive collateral damage to the opponent state—even if unnoticed by the U.S. public—can cause international criticism and create political complications.[308]

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303. WAXMAN, *supra* note 11, at 26, 31.

304. VICK, *supra* note 7, at 53, 62; WAXMAN, *supra* note 11, at 26. Recent research has suggested that this fear that the public would not tolerate large numbers of casualties is 'conventional wisdom' among civilian policymakers and military officials, but not among the public at large. Several different polls have suggested that the U.S. public will accept combat deaths so long as the mission has a chance to be successful, or is otherwise linked to their perceptions of "the stakes of a commitment and the competence of U.S. leadership in handling it." Peter D. Feaver & Christopher Gelpi, *Casualty Aversion; How Many Deaths Are Acceptable? A Surprising Answer*, WASH. POST, Nov. 11, 1999, at B03; *see also* LAMBETH, *supra* note 52, at 306. Other research suggests that the United States may be willing to risk both great collateral damage and casualties if sufficient national interests are at stake. VICK, *supra* note 7, at 59. However, the adversaries of the United States share the American politicians' belief that sensitivity to casualties is a "center of gravity" that can be exploited to the disadvantage of the United States. *Id.* at 54. Although international perceptions of this vulnerability have become especially acute since the first Gulf War, it was Ho Chi Minh that first suggested of the West, "You will kill ten of our men, and we will kill one of yours, and in the end it will be you who tire of it." THE MILITARY QUOTATION BOOK 4 (James Charlton ed., 1990). More recently, Saddam Hussein predicted "yours is a society that cannot accept 10,000 dead in one battle." WAXMAN, *supra* note 11, at 27.

305. LAMBETH, *supra* note 52, at 205.

306. *Id.*

307. *Id.*

308. VICK, *supra* note 7, at 56. During the first Gulf War, the bombardment of Iraqi soldiers fleeing Kuwait along the only highway back to Iraq was the scene of such carnage it was dubbed "the Highway of Death" by the international press. As a result, Chairman of the Joint Chiefs of Staff, General Colin Powell pressed for the war to be

It is important to note that the military's sensitivity to friendly deaths, however, can actually "push in opposite directions" from the desire to avoid collateral casualties.[309] Extreme sensitivity to friendly casualties may result in choices of weapons and RoE that protect the pilot, rather than minimize risk of collateral damage.[310] For example, during the air war over Kosovo in 1999, Washington required that pilots on combat missions fly no lower than 15,000 feet to avoid Serbian air defenses. This reduced the risk of a politically costly shoot-down or POW incident that could be damaging to the Administration. However, this move also increased the number of civilian casualties on the ground by making it difficult for pilots positively to identify targets.[311] Conversely, RoE intended to allow accurate bombing and minimize collateral damage also places pilots in greater danger, by forcing them to fly lower and more slowly to identify the target—exposing them to potentially deadly ground fire.[312] The key policy challenge has been to balance the political risk and legal requirements[313] in RoE in order to maximize military effectiveness while minimizing risk of collateral damage.[314]

In the case of the Afghanistan campaign, President Bush reportedly made low collateral damage a requirement for the military,[315] in order to assuage concerns in the Muslim world about the conduct of the war and combat the perception that the campaign was directed against Islam as a whole.[316] As a result, the Pentagon tightened its already strict targeting requirements; targets were nominated by personnel in the field and reviewed by lawyers under the supervision of commanders.[317] In line with the principles of military necessity, proportionality, and discrimination, these panels determined whether the target was being used for a military purpose, and judged whether the potential for civilian deaths outweighed the usefulness of a strike.[318] They reviewed what types of munitions were used to minimize unintended damage, and although the final decision belonged to the commander, the board could recommend that the bomb hit the target at a different angle or time to reduce collateral

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ended for fear it looked like the United States was engaged "in slaughter for slaughter's sake." COLIN POWELL & JOSEPH E. PERSICO, MY AMERICAN JOURNEY 520-21 (1995).

309. VICK, *supra* note 7, at 52.
310. *Id.* at 59.
311. *Id.* at 52; WAXMAN, *supra* note 11, at 25; LAMBETH, *supra* note 52, at 205.
312. WAXMAN, *supra* note 11, at 34.
313. *Id.* at 35.
314. *See* VICK, *supra* note 7, at 60.
315. Thomas E. Ricks, *Target Approval Delays Cost Air Force Key Hits*, WASH. POST, Nov. 18, 2001, at A01.
316. *Id.*; Arkin, *supra* note 240.
317. Schrader, *supra* note 182.
318. *Id.*

damage.[319] Coalition pilots were generally denied permission to attack civilian vehicles, despite the fact that the Taliban generally used vans and trucks to move combat troops.[320] The overwhelming reliance on precision, rather than unguided, weapons in this conflict also reflected an official Department of Defense policy choice to begin abandoning unguided bombs. "We are moving away from dumb bombs as much as possible . . . [g]iven concerns over collateral damage . . . and the tight quarters in which we operate, there is good reason to want the lion's share of our weapons to be precision-guided."[321]

The process of proposing, reviewing, and vetting targets was so exhaustive during Afghanistan that U.S. Air Force officials reportedly complained that it had hampered the effort to kill senior Taliban and al Qaeda officials. According to one officer familiar with execution of the war, "We knew we had some of the big boys . . . [but] the process is so slow that by the time we got the clearances, and everybody had put in their two cents, we called it off."[322] According to another observer, "the whole issue of collateral damage pervaded every level of the operation . . . it is shocking the degree to [it] hamstrung the campaign."[323] Some anonymous officers complained that CENTCOM's top lawyers were so concerned about collateral damage that they refused to authorize strikes even when the targets were "unambiguously" military in nature.[324] The lead CENTCOM JAG was especially criticized for her repeated second-guessing of senior U.S. Air Force officers,[325] while other senior officers complained that General Franks was heavily influenced by the "excessive doubts" of his legal advisor. As a result, as many as twelve times in late October to mid-November 2001, the U.S. Air Force reportedly believed they had top al Qaeda and Taliban officials in their gunsights but were not capable of completing the target review process in time to engage them.[326] In one such alleged event reported in the press, a Taliban military convoy was moving north to the front lines, and although U.S. Air Force targeteers believed it to be a prime target, the CENTCOM JAG attorneys refused to authorize the attack for fear "it

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319. *Id.*

320. *Key Command Banned All Attacks on Afghan Roads, Bridges*, *supra* note 235.

321. Puttré, *supra* note 120, at 70 (quoting a senior Defense Department official).

322. Thomas E. Ricks, *Air Force Saw Targets, Couldn't Get OK to Strike*, WASH. POST, Nov. 18, 2001, at A1.

323. Ricks, *supra* note 315.

324. *Id.*

325. Toby Harnden, *Dithering by U.S. "Let Terrorists Escape,"* DAILY TELEGRAPH (LONDON), Nov. 19, 2001, at 1.

326. Ricks, *supra* note 315.

might be a trick,"[327] and that the convoy might contain children. Such stories—if true—would corroborate insider accounts that CENTCOM officials were reportedly "deathly afraid of a setup"[328] because of political pressure to avoid a bloody collateral damage incident that would publicly damage the campaign.

VI. THE COSTS OF PLAYING FAIR

The U.S. dedication to respect the law of war continues despite opponents who would exploit it to their advantage. As explained above, for domestic political reasons, the United States requires the perception—at least at home, if not abroad—that it holds the moral high ground. Compliance with the law of war on the part of the United States encourages like behavior by other states, which is also beneficial as it increases the predictability of state actions, as well as acting as a stabilizing force that helps to maintain a status quo in which the United States maintains its preeminence.[329] As a result, the United States generally "plays by the rules" in complying with the law of war or through policy controls that accomplish that same effect. This is a limitation in its own right—"a war plan based on self-contradictory politico-military objectives—e.g., destroy the military but spare civilians—will inevitably restrict operations."[330] This is compounded by the likelihood that any potential adversary of the United States will not reciprocate its adherence to the law of war. Instead, future opponents—likely dictators or rogue states such as Iran, Syria, or possibly North Korea, or shattered anarchical societies such as Somalia—are the type of states that are the least likely to comply. "Since law is generally a conservative force," notes one observer, "it is more likely to be observed by those more content with their lot."[331] Pariah states are rarely so content, and the only penalty for committing violations—international condemnation and isolation—may have already been imposed for other reasons. Another factor encouraging the violation of international law for opponent states is a perception of the stakes of the conflict. What may only be a small regional war to the United States could be a major confrontation to a smaller opponent.[332]

Contrary to some predictions that the use of PGMs by the United States will "firmly cement the demarcation between combatants and

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327. *Id.*
328. *Id.*; *see also* Ricks, *supra* note 322.
329. VICK, *supra* note 7, at 41.
330. Mary C. Fitzgerald, *A 'Noncontact, Contact War:' What Iraqi Freedom Showed Russia and China*, ARMED FORCES J., Aug. 2003, at 26.
331. *Id.* at 62.
332. *Id.*

non-combatants,"[333] the huge technological advantage the United States has over its opponents will likely discourage some states to comply with the law.[334] The more technologically advanced the United States becomes, the more its opponents will seek to employ unlawful "asymmetric" attacks in order to even the playing field. Potential adversaries the world over closely watch U.S. combat operations so they can predict the success of their own weapons and tactics against U.S. forces, and already indicators of foreign training and doctrine suggest potential opponents believe that increasing Western reliance on high-tech weapons and tactics generates a vulnerability to low-tech countermeasures, including urban and guerilla warfare.[335] These counterweights by definition require violations of the law of war, such as mixing combatants and noncombatants, the placement of military targets in religious or cultural facilities, or deliberate attacks against noncombatants. Technological superiority does little to prevent these tactics; for example, U.S. air- and space-borne sensors, in the words of one retired Marine Corps General, do "a fantastic job in wide open spaces. [They do] not, however, do all we would like [them] to do in a cluttered environment."[336] Nothing can instantly identify an "enemy company in the basement of [a] built up area"[337] or distinguish the "twelve terrorists mixed with that crowd in the village market."[338] This inability to distinguish combatants from noncombatants will discourage adversaries from separating themselves from the civilian population or identifying themselves as the law of war requires.[339]

Because few opponents will expect to be able to defend against U.S. air superiority on open terrain, U.S. adversaries may also withdraw into the cities for cover. The dense concentration of civilian population and military objectives inside cities are an ideal place to hide—and also vastly increase the chances of unintended or disproportionate collateral damage.[340] As explained by one formal study, "heightened risk of collateral damage when operating in urban environments partially offsets U.S. technological superiority and provides adversaries with expanded opportunities to exploit U.S. adherence to certain norms."[341] Thus, U.S. forces should expect to face more opponents who will fight primarily in urban environments,

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333. Belt, *supra* note 13, at 115.
334. *See* Schmitt, *supra* note 159, at 1079.
335. *See* Fitzgerald, *supra* note 330, at 28.
336. LAMBETH, *supra* note 52, at 284.
337. *Id.* at 301.
338. *Id.*
339. Schmitt, *supra* note 159, at 1079.
340. VICK, *supra* note 7, at 47.
341. *Id.* at 40.

co-mingle civilian and military assets, employ civilian transportation and civilian facilities for military use, and manipulate the media into broadcasting every U.S. slip-up for their own propaganda gain.[342] W. Hays Park's admonition that "the defender has accomplished his mission if he makes the attacker miss the target"[343] is especially true if the consequences of a missed weapon are exaggerated and broadcast live on al-Jazeera for the propaganda gain of the enemy.[344]

These sorts of violations have become more than theoretical; nearly every opponent of the United States since the end of the Cold War has sought to turn the laws of war to their advantage. During the 1991 Gulf War, Coalition forces amassed a laundry list of Iraqi legal violations—mainly using civilian facilities to shield military objectives and a failure to separate the civilian population from target zones. According to the official Department of Defense report of the war, Iraqi military helicopters were hidden in residential areas and military supplies were stored in mosques, hospitals, and schools.[345] More specifically, a cache of Silkworm cruise missiles was found in a school in Kuwait City, and Iraqi fighter aircraft were parked next to the ancient temple of Ur.[346] Public announcements that Coalition forces would not attack populated targets only increased the dispersion of Iraqi military assets into densely populated urban areas.[347] Iraqi civilians were never evacuated from the city or from military targets, and less than one percent of the city's population had access to air raid shelters.[348] The Iraqi regime employed similar tactics during the second Gulf War, depositing huge caches of arms into countless schools and mosques, and placing air defense weapons on top of hospitals and other public works. These violations are not limited to Iraq; during Operation Allied Force in the Balkans, the Serbs used churches, schools, and hospitals to shelter equipment from U.S. air strikes,[349] and in Afghanistan the Taliban sheltered combat personnel and arms caches in mosques and schools.

One particularly costly collateral damage incident demonstrates how a humanitarian disaster stemming from violations of the law of war, and compounded by an urban environment, can be turned to a violator's advantage. On February 13, 1991, two F-117A stealth fighters attacked a hardened shelter in Baghdad that U.S. intelligence had reportedly identified as a "command and control (C2)

342. *See id.* at 63.
343. Parks, *supra* note 14, at 191.
344. *See* VICK, *supra* note 7, at 47.
345. GULF WAR REPORT, *supra* note 6, at 613.
346. *Id.*
347. *Id.*
348. *Id.*
349. VICK, *supra* note 7, at 66.

bunker".[350] Also known as the al-Amariyah bunker, the site had been constructed in the middle of a populated area as an air raid shelter, but was later converted into a C2 bunker. It had been camouflaged, surrounded with barbed wire, and was protected by armed guards.[351] The bunker had reportedly been considered as a target several times, but had been dismissed each time until intelligence had finally confirmed its purpose.[352] Unknown to U.S. intelligence, however, selected civilians—likely the families of officers working within—were being allowed to take shelter in the bunker at night in a civilian section one level above the military areas.[353] The Iraqi's commingling of combatant and noncombatant facilities, and their failure to remove the civilian population from the site was in violation of the law of war. However, when U.S. bombs destroyed the facility, killing in excess of 300 civilians,[354] little mention was made of those Iraqi violations in the press. Footage of the charred bodies of children being pulled out of the ruins of the bunker was broadcast by the global media and sufficiently damaged the Bush Administration so that all future strikes on Baghdad were subjected to personal review by CENTCOM commander General Norman Schwartzkopf and Chairman of the Joint Chiefs of Staff General Colin Powell.[355]

VII. CONCLUSION

The United States conducts its aerial campaigns under a strict set of legal and policy restrictions designed to reflect national political requirements and respect for the international law of war. Although such safeguards are never a guarantee that a conflict will be bloodless, the precautions taken by the United States meet or exceed the requirements of international law. In contrast to earlier wars, where it was the accepted practice for vast formations of bombers to decimate entire areas in order to hit a single target, small numbers of U.S. laser and GPS guided bombs now strike targets with an exacting economy of force. Precision warfare has made armed conflict both more and less lethal.[356] The majority of weapons used by the U.S. military in recent conflicts are capable of striking legitimate targets with unmatched precision. But at the same time, the entire targeting process is pervaded with self-imposed safeguards to protect civilian

350. Moran, *supra* note 136.
351. GULF WAR REPORT, *supra* note 6, at 615.
352. Moran, *supra* note 136.
353. GULF WAR REPORT, *supra* note 6, at 615.
354. NORDEEN, *supra* note 107, at 222.
355. POWELL & PERSICO, *supra* note 308, at 513.
356. Schmitt, *supra* note 158, at 1087.

lives. Military lawyers are embedded into the targeting process to ensure every target may be legitimately attacked under the law of armed conflict, while each military target is carefully identified and vetted for the risk of collateral damage. Meanwhile, military "weaponeers" deliberately engineer every strike to employ the minimum amount of force needed to destroy the target. Even where the destruction of a target is allowed by the law of war, commanders may abort the strike out of concern that disproportionate numbers of casualties would result. Pressure from the civilian leadership only focuses the intensity of these efforts, as the political consequences of a significant collateral damage incident can dramatically alter or even terminate a military operation.

No military campaign is ever perfect, and it is an unfortunate consequence that some civilians will inevitably die as the result of aerial bombing. U.S. practice in the Gulf Wars, Kosovo, and Afghanistan has been successful in limiting civilian deaths and establishing that U.S. practice is consistent with the core legal doctrines of proportionality, discrimination, military necessity, and humanity. The respect demonstrated by U.S. forces for the law of war even goes so far as to constitute a disadvantage when fighting rogue states who violate these same laws to protect their combat forces. U.S. forces must comply with the law of war and policy requirements even when their adversaries do not; they must uphold the rules of engagement even when the enemy hides among the civilian population and uses mosques and schools to hide its weapons and ammunition.

Some would argue that the caution demonstrated by the United States only exceeds the letter of the law because the law has not kept current with the development of tactics and technology. To a certain degree, this is true—the law of war has always lagged behind the accepted practice of the day. Currently, there exists no customary requirement for the use of precision weapons nor a requirement for total accountability for the effects of each bombing strike. The law merely requires "reasonable care" in the pressing of attacks against military targets and good faith efforts to avoid unnecessary or disproportionate levels of loss or suffering. Although the United States is capable of—and does exercise—a higher level of care to avoid casualties, it is a dubious proposal that this higher "superpower" standard should be applied against all other nations. The purpose of the law of war is to encourage nations to comply, resulting in a reduction of unnecessary suffering and destruction. Only a select few nations possess guided weapons, and even less have a sufficient quantity to carry out an extended air campaign using only those weapons. To apply a total "precision" standard only to the United States raises questions of equity and fairness. Imposing it against all nations, regardless of their ability to maintain the standard, would set the law up to be violated. Only by keeping the

international requirements at a realistic and attainable level for all nations can we hope to avoid the conclusion suggested by Sir Arthur Harris, Commander of British Bomber Command during World War II: "International law can always be argued pro and con, but in this matter of the use of aircraft in war there is, it so happens, no international law at all."[357]

357. Parks, *supra* note 14, at 2.