HOLLOW POINT BULLETS: HOW HISTORY HAS HIJACKED THEIR USE IN COMBAT AND WHY IT IS TIME TO REEXAMINE THE 1899 HAGUE DECLARATION CONCERNING EXPANDING BULLETS

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[P]ublic opinion . . . would never sanction the use of a projectile which would cause useless suffering . . . but we claim the right and we recognize the duty of furnishing our soldiers with a projectile on whose result they may rely,—a projectile which will arrest, by its shock, the charge of an enemy and put him hors de combat immediately.¹

I. Introduction

Specialist Jonas Hayes was conducting a presence patrol in Mosul with his platoon. It was mid-morning in June and the temperature was already near 100 degrees. Specialist Hayes strained underneath the weight of his equipment: an outer tactical vest loaded down with ammunition, body armor, and communications gear. Specialist Hayes was anxious; two weeks ago, the platoon was ambushed in the narrow streets of the Old City and a soldier in 2d squad was killed. Not only did the platoon lose a soldier, but one civilian was killed and two civilians were wounded by stray bullets. As Specialist Hayes's squad moved up the street through the crowded market, he noticed what appeared to be a

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¹ James Brown Scott, The Proceedings of the Hague Peace Conferences 277 (1921) (quoting General Sir John Ardagh in a declaration before the First Commission of the Hague Peace Conference on June 22, 1899, defending the use of the "Dum Dum" bullet by the British Army).

woman in a black burqa, about fifty meters away, moving toward them. The person appeared taller than the average woman and seemed bulky around the midsection. The platoon had received an intelligence brief that al Qaeda was conducting suicide bombings in northern Iraq using men disguised as women to avoid suspicion. Specialist Hayes shouted "Kif! Kif!" (Stop! Stop!), but the woman kept coming toward the squad. Specialist Hayes then aimed his M-4 carbine at the woman and again yelled for her to stop, but she kept advancing and broke into a jog. Specialist Hayes now saw what appeared to be wires protruding from the woman's burqa.

Specialist Hayes felt that the woman presented a hostile threat so he fired one round, hitting the woman, but she did not stop. Specialist Hayes hesitated because there were dozens of civilians in the market, but then fired another round, staggering the woman, but she kept coming. The woman was now about thirty meters away and was still on her feet. Specialist Hayes now engaged the woman with several rounds of 5.56 millimeter (mm) ball ammunition from his M-4 carbine. The rest of the squad had also leveled their weapons on the woman and numerous bullets began zipping down the street. Time seemed to stand still as the woman finally crumpled and then the earth went white as a deafening explosion roared through the street.

Specialist Hayes blinked as he looked up at the blue sky; his ears were ringing and his body felt numb. He pulled himself up and checked his extremities. He was okay. The rest of the squad got to their feet and they were ordered to cordon the area and provide security. As the squad fanned out past the area where the bomber had attacked, Specialist Hayes saw numerous dead civilians and blood and body parts littering the street. He had seen the aftermath of a bombing before, but he was not prepared for what he saw next. As he moved about thirty meters past the bombing site, he saw civilians shouting for help and he rushed over to see what was wrong. There were two wounded women and a boy, all with apparent gunshot wounds. Specialist Hayes began to perform first aid and yelled for a medic.

Back at the forward operating base (FOB), as Specialist Hayes cleaned the blood and dirt from his hands and clothes, he could not get over what happened that day. He had survived a suicide bombing and his platoon leader was telling Hayes he was a hero for stopping the bomber. But Specialist Hayes did not feel heroic—not when he thought of the dead civilians. Even though Hayes knew the bullets he fired were

directed at a legitimate target, he could not dismiss the probability that some of those same bullets had killed innocent bystanders. Specialist Hayes did not know whether those bullets were misses, ricochets, or bullets that had passed through the bomber, but he knew he felt guilty. "Collateral damage" said his platoon sergeant. "You didn't mean to kill those people; they were collateral damage. Besides, what else were you going to do? These are the only bullets we've got to use. It's not like we're the cops back home with hollow point ammo. You've heard those ROE [rules of engagement] briefs; we aren't allowed to use hollow point." Specialist Hayes wished he could meet the people responsible for this rule and tell them what it felt like to shoot bullets that killed innocent bystanders. Maybe they could explain why he could not use a different bullet.

Although this scenario is fictional, based loosely² on situations American servicemembers have faced every day in Iraq and Afghanistan for the last eight years, the complaints about the effectiveness of the standard M855 5.56 mm bullet used by American forces are real.³ The M855 has a steel penetrator core that was designed to pierce Soviet Body Armor, not "lightly clad insurgents."⁴ Perhaps surprisingly, the M855 round has been described as a "weak spot in the American arsenal" that is "not lethal enough to bring down an enemy decisively" and "puts troops at risk."⁵ Since the beginning of combat operations in Afghanistan and Iraq, the number of complaints about the effectiveness of the M855

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² See, e.g., Mudhafer Al-Husaini & Richard A. Oppel, Jr., Suicide Bomber Is Spotted and Shot, but Kills 3 in Baghdad, N.Y. TIMES, Feb. 18, 2008, at A4 (describing an Iraqi response to a suicide bomber).

³ See, e.g., Major Glenn Dean & Major David LaFontaine, Small Caliber Lethality: 5.56mm Performance in Close Quarters Battle, INFANTRY MAG., Sept.—Oct. 2006, at 26 (summarizing efforts to research and address complaints with the performance of the M855 bullet in combat); Matthew Cox, Deadlier Round Denied, ARMY TIMES, Mar. 8, 2010, at 18 (describing complaints about the current M855 round and why the Army will not field the new Special Operations Science and Technology (SOST) 5.56 mm round); Do U.S. Bullets Pack Enough Punch?; Ammunition Designed for Cold War Battles Doesn't Fit Iraq Fighting, GRAND RAPIDS PRESS, May 27, 2008, at A1 (arguing that the smaller M855 bullet was designed to kill Soviets wearing body armor at long distances, not insurgents at close ranges in urban environments); C.J. Chivers, How Reliable Is the M-16 Rifle, http://atwar.blogs.nytimes.com (Nov. 2, 2009, 9:29 EST) (discussing complaints with the effectiveness of the M16/M4 rifles and the possibility that the M855 bullet is to blame).

⁴ Chivers, *supra* note 3; Dean & LaFontaine, *supra* note 3, at 29–32.

⁵ *Do U.S. Bullets Pack Enough Punch?*, *supra* note 3. Some soldiers complain that when the M855 round strikes an enemy "wearing only a shirt it can travel through him like an ice pick." Chivers, *supra* note 3.

round prompted the U.S. Army Infantry Center and other Department of Defense (DoD) agencies to study rifle and ammunition performance.⁶ Some operators complained that the M855 was not effective at close ranges, where most urban combat engagements occur, and that a different bullet was required for such combat.⁷ However, the international laws of war limit the types of bullets that a nation can use in armed conflict.

Before any new ammunition is fielded in the United States, it must pass a formal legal review within the U.S. DoD for compliance with "all applicable domestic law and treaties and international agreements . . ., customary international law, and the law of armed conflict." Within these legal reviews, there are "several potential legal and factual factors" to consider, but of these factors, military necessity and superfluous injury are usually the most critical. In the legal analysis, "[t]he major consideration will be weighing military necessity against the prohibition of weapons of a nature to cause superfluous injury or unnecessary suffering." The United States defines military necessity "as that principle which justifies those measures not forbidden by international law which are indispensable for securing the complete submission of the enemy as soon as possible." Thus, fielding hollow point bullets to U.S. forces faces its first hurdle—the well-known prohibition against the use of expanding bullets in armed conflict.

The 1899 Hague Declaration Concerning Expanding Bullets¹² prohibits "the use of bullets which expand or flatten easily in the human body, such as bullets with a hard envelope which does not entirely cover

⁷ Do U.S. Bullets Pack Enough Punch?, supra note 3. The U.S. Army has also "acknowledged that the M855 'has not been providing the "stopping power" the user would like at engagement ranges less than 150 yards." Cox, supra note 3, at 18.

⁶ Dean & LaFontaine, *supra* note 3, at 26.

⁸ U.S. DEP'T OF DEFENSE, DIR. 5000.01, THE DEFENSE ACQUISITION SYSTEM para. E1.1.15 (May 12, 2003) (certified current as of Nov. 20, 2007) [hereinafter DOD DIR. 5000.01].

⁹ W. Hays Parks, *Conventional Weapons and Weapons Reviews*, 8 YEARBOOK OF INT'L HUMANITARIAN L. 55, 130 (2006) (describing the legal reviews of conventional weapons generally and within the United States specifically).

¹⁰ *Id.* at 131.

¹¹ U.S. DEP'T OF ARMY, FIELD MANUAL 27-10, THE LAW OF LAND WARFARE para. 3 (18 Jul. 1956) (C1, 15 July 1976) [hereinafter FM 27-10].

¹² Hague Declaration (IV, 3) Concerning the Prohibition of the Use of Expanding Bullets, July 29, 1899, 26 Martens Nouveau Recueil (ser. 2) 1002, 187 Consol. T.S. 459 [hereinafter Hague Expanding Bullets Declaration].

the core or is pierced with incisions."¹³ The United States never signed this treaty, but adheres to the prohibitions of the Hague Expanding Bullets Declaration.¹⁴ However, the prohibition on expanding bullets, which includes hollow point bullets, only applies to the armed forces of nations engaged in international armed conflict and does not apply to domestic law enforcement agencies.¹⁵ Critics of the M855 round believe it is "time to update this antiquated idea and allow U.S. military personnel to use the same proven ammunition" in combat as is used by domestic law enforcement.¹⁶

The major impediment to updating this "antiquated idea" is the strict prohibition against the use of expanding bullets in international armed conflict. The problem with the Hague Expanding Bullets Declaration is that the true reasons for its existence are unknown, overlooked, or ignored.¹⁷ This article argues that the 1899 Hague Expanding Bullets

The United States is not a party to [the Hague Expanding Bullets Declaration], but United States officials over the years have taken the position that the armed forces of the United States will adhere to its terms to the extent that its application is consistent with the object and purpose of article 23e of the Annex to Hague Convention IV.

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¹³ *Id.* This article generally refers to "expanding bullets"; however, "hollow point" bullets fall under the broad category of expanding bullets.

¹⁴ W. Hayes Parks, Memorandum of Law—Sniper Use of Open-Tip Ammunition, ARMY LAW., Feb. 1991, at 86, 87. Parks stated,

See 1 Jean-Marie Henckaerts & Louise Doswald-Beck, Customary International Humanitarian Law: Rules 270 (2007). Contra Jordan J. Paust, Does Your Police Force Use Illegal Weapons? A Configurative Approach to Decision Integrating International and Domestic Law, 18 Harv. Int'l L.J. 19, 23 (1977) (arguing

Integrating International and Domestic Law, 18 HARV. INT'L L.J. 19, 23 (1977) (arguing that international law prohibits the use of hollow point bullets by law enforcement agencies in the United States).

¹⁶ *Do U.S. Bullets Pack Enough Punch?*, *supra* note 3.

¹⁷ See Ingrid Detter De Lupis, The Laws of War 194 (1987) (stating the existence of the regulation against dumdum bullets without describing its historical origins); Leslie C. Green, Essays on the Modern Law of War 21 (2d ed. 1999) (categorizing dumdum bullets as "explosive" and focusing on Britain's use of them against "fanatical savage[s]"); Frits Kalshoven & Liesbeth Zegveld, Constraints on the Waging of War 22–23, 42 (3d ed. 2001) (describing the "horrible" wounds caused by expanding bullets and describing the passage of the ban on such bullets as the application of the "necessities of war with the laws of humanity"); Howard S. Levie, The Code of International Armed Conflict 73 (1986) (acknowledging Britain's use of the dumdum bullet to stop "a fanatical opponent" but overlooking reasons for the ban); Hilaire McCoubrey, International Humanitarian Law 232 (2d ed. 1998) (comparing the effects of dumdum bullets to those used for hunting and explosive bullets,

Declaration was the result of a sensationalized German study on expanding bullets and the political and military motivations of Britain's European rivals. As discussed later, the prohibition against expanding bullets is so entrenched in international law that the International Committee of the Red Cross (ICRC) declared it customary international law in 2005, 18 leaving in place a legal rule that, in theory, limits unnecessary suffering, but in reality may lead to increased collateral damage.

Suggesting that a long-standing rule of international law is incorrect will undoubtedly create controversy in some circles; however, the operational environments of Iraq and Afghanistan dictate a reevaluation and close scrutiny of the ban on hollow point ammunition. ¹⁹ Part II of this article seeks to dispel the deference accorded to the 1899 Hague Expanding Bullets Declaration through a comprehensive historical overview of the ban on expanding bullets, from the 1868 St. Petersburg Declaration to the 1998 Rome Statute of the International Criminal Court. In order to comprehend how the current status of the ban on expanding bullets is susceptible to challenge, it is necessary to examine the historical underpinnings of the Hague Expanding Bullets Declaration. A close historical analysis highlights the importance that political motives, under the guise of humanitarian concerns, played in the genesis of the treaty and how confusion surrounding Britain's "dumdum" bullets helped develop the foundation for the long held belief that these rounds cause unnecessary suffering.

After questioning the legal basis for the international prohibition against expanding bullets, this analysis moves to the second component of military necessity: measures "which are indispensable for securing the complete submission of the enemy as soon as possible."²⁰ Part III of this article looks at the current U.S. position on hollow point bullets, examines domestic law enforcement's successful use of expanding bullets to minimize civilian casualties, and discusses why United States' armed forces need this same capability in today's armed conflicts. Specifically, in the current operational environments of Iraq and

but ignoring the debate behind the passage of the ban); DOCUMENTS ON THE LAWS OF WAR 39 (Adam Roberts & Richard Guelff eds., 1982) (noting, in a prefatory note on the 1899 Hague Declaration 3 Concerning Expanding Bullets, British and American objections to the ban and noting the ban's status as customary international law).

¹⁹ See infra Part IV.B.

¹⁸ HENCKAERTS & DOSWALD-BECK, *supra* note 15, at 268–69.

²⁰ FM 27-10, *supra* note 11, para. 3.

Afghanistan, employing expanding bullets in urban areas would allow the United States to equip its military forces with a bullet that has a greater potential for incapacitating threats, while at the same time reducing the risk of collateral damage to innocent civilians—helping the United States to comply with the law of war principle of distinction²¹ while at the same time supporting strategic counterinsurgency goals of protecting local civilian populations.²²

Finally, in order for the U.S. military to acquire expanding bullets, a legal review must find that such bullets do not cause superfluous injury nor do they cause unnecessary suffering. Part IV of this article addresses wound ballistics—the science of how bullets wound and kill—and examines common misconceptions found in wound ballistics; misperceptions likely to arise should the United States acquire and employ expanding bullets in combat. Part IV also discusses both the United States view of unnecessary suffering under Article 23(e) of the Annex to the 1907 Hague Convention IV²³ and the prevailing international view under Article 35(1) of Additional Protocol I to the 1949 Geneva Conventions, ²⁴ and determines that under either standard, a legal review would find that expanding bullets do not cause unnecessary suffering or superfluous injury.

Part V concludes this article with the argument that the steadfast ban on expanding bullets is actually based on fragile assumptions by international legal practitioners, and that permitting their use in armed conflict might actually better support the humanitarian underpinnings of the laws of war. Finally, Part V discusses the limitations of this paper's analysis and recommends actions the United States should take to examine the potential effectiveness of expanding bullets in combat.

²² Discussed in Part IV.B, *infra*.

²¹ Discussed in Part IV, infra.

²³ Convention Respecting the Laws and Customs of War on Land (Hague IV), art. 23e (18 October, 1907), *entered into force* January 26, 1910.

²⁴ Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts (Protocol I), art. 35, June 8, 1977, 1125 U.N.T.S. 3 [hereinafter Additional Protocol I].

II. The International Prohibition on the Use of Expanding Bullets in Combat

The international prohibition on the use of expanding bullets in armed conflict has existed for over one hundred years, dating to the 1899 Hague Expanding Bullets Declaration. In 2005, the ICRC concluded a study on the customary rules of international humanitarian law applicable in international and non-international armed conflicts.²⁵ This ICRC study concluded that "bullets which expand or flatten easily in the human body" are prohibited for use by state practice under customary international law.²⁶ Seven years earlier, the Rome Statute of the International Criminal Court summarily outlawed hollow point ammunition because it was a "clearly established classical prohibition."²⁷ The widely accepted belief that the ban on hollow point ammunition is customary international law raises the question of how this ban has achieved that status. Before examining the historical foundation of the prohibition against the use of hollow point ammunition in armed conflict, scrutiny of the method the ICRC used to determine its status as customary international law is appropriate to determine just how uncontroverted and unquestioned this rule is in the international legal community.

A. Expanding Bullets and Customary International Law

The International Court of Justice states that customary international law is "a general practice accepted as law." ²⁸ Customary international

²⁵ Jean-Marie Henckaerts, Study on Customary International Humanitarian Law: A Contribution to the Understanding and Respect for the Rule of Law in Armed Conflict, 87 INT'L REV. RED CROSS 175, 176–77 (Mar. 2005).

²⁶ *Id.* at 193. Henckaerts noted that the "study on customary international humanitarian law" was "undertaken by the ICRC at the request of the International Committee of the Red Cross and Red Crescent." *Id.* at 175. Dr. Jakob Kellenberger's foreword to CUSTOMARY INTERNATIONAL HUMANITARIAN LAW, *supra* note 15, makes it clear that the International Committee of the Red Cross (ICRC) has institutionally adopted the findings of the study as the views of the on customary international humanitarian law. As such, this article refers to the findings of the study as the views of the ICRC. For a U.S. Government response to the ICRC study, see John B. Bellinger, III & William J. Haynes, II, *A U.S. Government Response to the International Committee of the Red Cross Study* Customary International Humanitarian Law, 89 INT'L REV. RED CROSS 443 (June 2007).

 $^{^{27}}$ The International Criminal Court, The Making of the Rome Statute 116 (Roy S. Lee ed., 1999).

²⁸ Statute of the International Court of Justice art. 38(1)(b), June 26, 1945, 59 Stat. 1031.

law has two required elements: state practice (usus) and "a belief that such practice is required, prohibited, or allowed, depending on the nature of the rule, as a matter of law" (opinio juris). 29 However, this definition and its exact meaning have been subject to a great deal of scholarly writing.³⁰ In its study of customary international humanitarian law, the ICRC examined state practice through two lenses: first, "what practice contributes to the creation of customary international law (selection of State practice)" and second, "whether this practice establishes a rule of customary international law (assessment of State practice)."31 A state's physical and verbal actions help create customary international law.³² In assessing state practice, such practice must be "virtually uniform, extensive, and representative."33 The ICRC apparently struggled to evaluate opinio juris because it was "very difficult and largely theoretical to strictly separate elements of practice and legal conviction."³⁴ Nonetheless, the ICRC concluded that where state practice is "sufficiently dense, an opinio juris is generally contained within that practice and, as a result, it is not usually necessary to demonstrate separately the existence of an *opinio juris*." The ICRC also stated that treaty law is also pertinent in determining customary international law because it helps "shed light on how States view certain rules of international law."36

The ICRC specifically concluded that "[t]he use of bullets which expand or flatten easily in the human body is prohibited" because "State practice establishes this rule as a norm of customary international law applicable in both international and non-international armed conflicts."³⁷ The ICRC relied on the fact that during the twentieth century, thirty-four states had ratified, acceded to, or succeeded to the Hague Expanding

³¹ *Id.* at 179.

²⁹ Henckaerts, *supra* note 25, at 178.

³⁰ *Id*.

³² Id. For example, physical acts include "battlefield behaviour, the use of certain weapons and the treatment afforded to different categories of persons." Id. Verbal acts include "military manuals, national legislation, national case-law, instructions to armed and security forces, military communiques during war, diplomatic protests, opinions of official legal advisers, comments by governments on draft treaties, executive decisions and regulations, pleadings before international tribunals, statements in international fora, and government positions on resolutions adopted by international organizations." Id.

³³ *Id.* at 180.

³⁴ *Id.* at 182. ³⁵ *Id*.

³⁶ *Id*.

³⁷ HENCKAERTS & DOSWALD-BECK, *supra* note 15, at 268.

Bullets Declaration.³⁸ The ICRC also identified the listing of the use of expanding bullets as a war crime in the Rome Statute as well as the prohibition against expanding bullets in various other sources such as military manuals, state legislation, and "official statements and other practice."³⁹

The ICRC declared that "no State had asserted it would be lawful to use such ammunition," but that a possible exception to this rule was "the practice of the United States, although it is ambiguous." The ICRC noted that several U.S. military manuals prohibit the use of expanding bullets but that three U.S. Army legal reviews of ammunition permit the use of expanding bullets when there is "a clear showing of military

³⁸ *Id.* The ICRC website lists thirty-one nations that have signed, ratified, or acceded to the Hague Expanding Bullets Declaration. State Parties and Signatories to the Hague Expanding Bullets Declaration, INT'L COMM. RED CROSS, http://www.icrc.org/IHL.nsf/WebSign?ReadForm&id=170&ps=P (last visited Jan. 17, 2010) [hereinafter State Parties and Signatories to the Hague Expanding Bullets Declaration]. Of these thirty-one listed parties, all but four had signed or ratified the Declaration by 1907. *Id.* Belarus acceded to the Declaration in 1962, Ethiopia in 1935, Fiji in 1973, and South Africa in 1978. *Id.* This hardly seems like overwhelming support for the ICRC's assertion of direct international adherence to the Declaration.

HENCKAERTS & DOSWALD-BECK, supra note 15, at 268-69. Rome Statute of the International Criminal Court, art. 8(b)(xix), July 17, 1998, 2187 U.N.T.S. 90 [hereinafter Rome Statute]. The Rome Statute forbade "[e]mploying bullets which expand or flatten easily in the human body, such as bullets with a hard envelope which does not entirely cover the core or is pierced with incisions" and is discussed in further detail in Part II.G, infra. The other listed sources prohibiting expanding bullets included: INSTITUTE OF INTERNATIONAL LAW, MANUAL OF THE LAWS OF NAVAL WAR art. 16(2) (1913) [hereinafter Oxford Manual]; Commission on the Responsibility of the Authors of THE WAR AND ON THE ENFORCEMENT OF PENALTIES, REPORT PRESENTED TO THE PRELIMINARY PEACE CONFERENCE (1919), reprinted in 14 Am. J. INT'L L. 95, 112–17 (1920)); U.N. Secretary-General, Observance by United Nations Forces of International Humanitarian Law, sec. 6.2, U.N. Doc. ST/SGB/1999/13 (Aug. 6, 1999); and UNTAET Reg. 2000/15, On the Establishment of Panels with Exclusive Jurisdiction over Serious Criminal Offences sec. 6(1)(b)(xix) (June 6, 2000) (establishing panels with exclusive jurisdiction over serious criminal offenses in East Timor). HENCKAERTS & DOSWALD-BECK, supra note 15, at 268. However, the text of all these documents are nearly verbatim restatements of the prohibitory language found in the Hague Declaration of 1899 and the Rome Statute. The citations to the "military manuals," "State legislation," and "official statements and other practice" are not specific and are not important for the purposes of this article as they likely use language identical to that found in the Hague Declaration of 1899. All of the cited materials make it clear that the Hague Declaration of 1899 is the exclusive basis for the ICRC and the U.N. prohibition against expanding

⁴⁰ HENCKAERTS & DOSWALD-BECK, *supra* note 15, at 269.

necessity for [their] use."41 The ICRC concluded its discussion of the United States's position by observing that during the negotiation of the Rome Statute in 1998, "the United States did not contest the criminality of the use of expanding ammunition."⁴²

The ICRC further discussed the prohibition of expanding bullets in non-international armed conflicts and concluded that state practice in this realm "is in conformity" with state practice in international armed conflicts.⁴³ The study did mention that "several States" employ expanding bullets for domestic law-enforcement purposes, 44 and interestingly enough, the ICRC declared that "expanding bullets may be used by police" in situations "where it is necessary to confront an armed person in an urban environment or crowd of people."45 In these situations, police may use expanding bullets "to ensure that the bullets do not pass through the body of a suspect into another person and to increase the chance that, once hit, the suspect is instantly prevented from firing back."46

[u]sage has, however established the illegality of the use of . . . irregular-shaped bullets, and projectiles filled with glass, the use of any substance on bullets that would tend unnecessarily to inflame a wound inflicted by them, and the scoring of the surface or the filing off of the ends of the hard cases of bullets.

Id. If FM 27-10 is, indeed, the military manual, cited by the ICRC, that prohibits the use of expanding bullets, the prohibition is hardly apparent. This article addresses the U.S. Army legal review of ammunition in Part IV.A, infra.

⁴¹ *Id.* While the ICRC study does not clarify which specific "United States Field Manual" prohibits the use of expanding bullets, FM 27-10 is considered the definitive source of the U.S. views on the international law of war. The ICRC stated that U.S. Army weapons reviews will "adhere to the Hague Declaration to the extent that the rule is consistent with Article 23(e) of the 1907 Hague Regulations, i.e., the prohibition of weapons causing unnecessary suffering." HENCKAERTS & DOSWALD-BECK, supra note 15, at 269. Field Manual 27-10 interprets Article 23(e), declaring that "[w]hat weapons cause 'unnecessary injury' can only be determined in light of the practice of the States in refraining from the use of a given weapon because it is believed to have that effect." FM 27-10, supra, note 11, para. 34b. Field Manual 27-10 acknowledges that

⁴² HENCKAERTS & DOSWALD-BECK, *supra* note 15, at 269. The Rome Statute is discussed in further detail in Part III.G, infra.

⁴⁴ *Id.* The study does not mention which States employ expanding bullets for domestic law enforcement use.

⁴⁵ *Id*.

⁴⁶ *Id.*

While the ICRC failed to explain its reasoning for why the use of expanding bullets is acceptable by police in domestic law enforcement situations but not by soldiers engaged in combat, the ICRC attempted to caveat its implicit approval of expanding bullets in domestic situations by stating,

It should be noted that expanding bullets commonly used by police in situations other than armed conflict are fired from a pistol and therefore deposit much less energy than a normal rifle bullet or a rifle bullet which expands or flattens easily. Police forces therefore do not normally use the type of expanding bullet that is prohibited for military use.⁴⁷

This superficial distinction between the lethal effects of pistol- and riflefired bullets raises several questions. Does the ICRC believe that expanding bullets are permissible in international armed conflict so long as soldiers fire them from a pistol? Is the need for soldiers engaged in urban combat to reduce the "pass through" of bullets less imperative than that of law-enforcement? Do soldiers engaged in combat have any less incentive than a law-enforcement officer in ensuring that a combatant, once hit, is prevented from firing back?

One commentator noted that in today's world, the "dividing line between armed conflict and some other condition falling short of it" is filled with great "ambiguity at the margins," offering the use of expanding bullets to neutralize a suicide bomber as an example. Additionally, this commentator also stated that "[i]f there is a clear need . . . to 'stop' a suicide bomber, and these weapons are necessary for that purpose, arguably they should be regarded as lawful" and that "[t]o maintain a ban on a weapon that has particularly appropriate utility, given the prevailing conditions, might prove to be unwise and the customary rule subject to challenge."

The apparent dichotomy in the way the ICRC—and the international community—views the use of expanding bullets in armed conflict versus

48 Steven Haines, *Weapons, Means and Methods of Warfare*, in Perspectives on the ICRC Study on Customary International Humanitarian Law 272 (Elizabeth Wilmshurst & Susan Breau eds., 2007).

 $^{^{47}}$ Id

domestic law-enforcement—or even pistol-fired bullets versus rifle-fired bullets—begs for an examination of the history of the rule. Understanding the historical background of this prohibition is especially critical given that the rule under customary international humanitarian law relies entirely on the Hague Declaration of 1899 as the only source for the prohibition against the use of expanding bullets in combat.

B. Declaration of St. Petersburg of 1868⁵⁰

The nineteenth century was a destructive one for the continent of Europe. Warfare in Europe was "characterized by large-scale formal battle" and sieges⁵¹ where armies fought primarily according to linear tactics.⁵² By the middle of the eighteenth century, small arms had transitioned from single-shot, muzzle-loaded guns that fired ball-shaped bullets, to rifled guns that fired repeating rounds of elongated pointed bullets, including crew-served machine guns.⁵³ These great advances in firepower and accuracy had far-reaching effects on tactics by the latter half of the century as armies sought to avoid "suicidal frontal assaults" on the enemy.⁵⁴ Armies became larger, and nations devoted increasing resources to equipping, moving, and sustaining their armies. 55 Within this revolution in technology, France, Britain, and Turkey battled Russia

⁵⁰ Declaration Renouncing the Use, in Time of War, of Certain Explosive Projectiles, entered into force Nov. 29/Dec. 11, 1868, 18 Martens Nouveau Recueil (ser. 1) 474, 138 Consol. T.S. 297 [hereinafter Declaration of St. Petersburg of 1868].

 $^{^{51}}$ R. Ernest Dupuy & Trevor N. Dupuy, The Encyclopedia of Military History 732 (2d rev. ed. 1986).

⁵² See, e.g., id. at 732–43.

⁵³ Id. at 822. There were numerous other advances in weaponry during the eighteenth century, including a transition from smoothbore, muzzle-loading cannon to rifled, breechloading artillery pieces that fired armor-piercing and explosive shells. Id. ⁵⁴ *Id.* at 823.

⁵⁵ Id. at 820-22. The American Civil War was the first "modern war" that implemented the new technologies and increased manufacturing power created by the Industrial Revolution. Id. The Civil War also brought about a new concept of a "nation at war" where the national economy was fully integrated into the war effort. Id. Additionally, the transition from agricultural economies to industrialization allowed more men to serve in the armed forces and work in the war industry. Id. This transition combined with improvements in transportation, which allowed armies to be moved and supported on an increasing scale, to promote larger and larger armies. Id.

during the Crimean War of 1853–1856;⁵⁶ Russia lost an estimated 256,000 men.⁵⁷

As the industrial capabilities and size of each nation's armies increased, so too did the race to develop advanced weapons technologies. Against this backdrop, in 1863, the Russian military invented a bullet that exploded on contact with a solid surface. In 1867, Russia modified the bullet to explode on contact with a soft surface. Some sources suggest that the Russian government of Tsar Alexander II was disinclined to use the bullet because of its concerns about the humanity of the bullet. Others suggest that Russia realized that her

It was during . . . [the second half of the eighteenth century] that some European states were developing powerful armies and navies and expanding their influence throughout the world. Some theorists, mainly German . . . advanced the view that such military power should not be restrained by the uses and customs of war."

⁵⁹ DIETRICH SCHINDLER & JIRI TOMAN, THE LAWS OF ARMED CONFLICTS 95 (2d ed. 1981). The primary purpose of this bullet was to detonate on contact with ammunition wagons. *Id.*

⁶⁰ *Id.* This bullet was smaller in caliber and was fired from a handheld weapon. McCoubrey, *supra* note 17, at 231; Hans-Peter Gasser, *A Look at the Declaration of St. Petersburg of 1868*, 33 Int'l Rev. Red Cross, No. 297, at 511–14 (Nov.–Dec. 1993).

It was enough to just imagine the horrific effects of exploding bullets on the human body to motivate States to sign the Declaration, recognising that a soldier should not suffer more serious injury than is necessary to put him or her out of action. The spirit of St. Petersburg to which I refer is also evident in that the initiative to prohibit these bullets came from the very State that had developed them.

⁵⁶ DUPUY & DUPUY, *supra* note 51, at 825–29.

⁵⁷ *Id.* at 829. To the west of Russia, France, Austria, and Prussia engaged in various wars from 1859–1871, culminating in the Franco-Prussian War of 1870–71. *Id.* at 829–37. Major wars during this period included the War of Austria with France and Piedmont of 1859, the Seven Weeks' War of 1866 between Austrian and Prussia, and the aforementioned Franco-Prussian War of 1870–71. *Id.* During this same time period, numerous other wars were conducted on a smaller scale. *See id.* at 838–46. To Russia's east, China and Japan were expanding and transforming themselves into military powers. *See* 3 J.F.C. FULLER, A MILITARY HISTORY OF THE WESTERN WORLD, FROM THE SEVEN DAYS BATTLE, 1862, TO THE BATTLE OF LEYTE GULF, 1944, at 136–41 (1956).

⁵⁸ See A.P.V. ROGERS, LAW ON THE BATTLEFIELD 1–2 (1996). Rogers notes,

Id. at 2.

⁶¹ See Gasser, supra note 60, at 511. Jakob Kellenberger, the President of the ICRC, reminded the world that the St. Petersburg Declaration prohibited a weapon that had not yet been used on the battlefield.

"more industrialized potential enemies" (Britain, France, and Germany) could produce massive quantities of the bullet.⁶² Given the conditions of the time, where nations were raising massive armies equipped with increasingly deadly weapons, the good intentions many international humanitarian lawyers ascribe to Russia and the other participating nations is suspect.⁶³

Nonetheless, the Declaration of St. Petersburg of 1868, which outlawed explosive projectiles under 400 grams, ⁶⁴ is widely seen as the first real attempt by states to constrain warfare. ⁶⁵ The Declaration was successful in that "few if any significant violations" have occurred in the wars since the late nineteenth century.66 Beyond the prohibition on exploding bullets, the Declaration is most often cited for the principle that the intentional infliction of superfluous injury and unnecessary suffering on combatants are prohibited in war.⁶⁷ While, in hindsight, the Declaration of St. Petersburg of 1868 was a milestone event in international law, it ultimately had little effect at the time on the rising tide of nationalism and the massive growth of militaries and arms in Europe.

Jakob Kellenberger, President ICRC, Speech at the International Conference on IHL Dedicated to the 140th Anniversary of the 1868 St. Petersburg Declaration (Nov. 24, available at http://www.icrc.org/web/eng/siteeng0.nsf/html/st-petersburgdeclaration-281108; KALSHOVEN & Zegveld, supra note 17, at 20-21 (limiting discussion of the 1868 St. Petersburg Declaration to the humanitarian concerns of that commission). ⁶² McCoubrey, supra note 17, at 231.

⁶³ The ICRC affirmed the Declaration of St. Petersburg of 1868 was "an international initiative, prompted by humanitarian considerations, to restrict the development of new weapons of a nature to cause superfluous injury or unnecessary suffering." 125th Anniversary of the Declaration of St. Petersburg of 1868, 33 INT'L REV. RED CROSS, No. 297, at 509 (Nov.-Dec. 1993). The Declaration "revolutionized military thinking by prohibiting, on humanitarian grounds and citing 'the laws of humanity', the use of a weapon of war developed as a result of advances in technology." Id. at 511.

⁶⁴ Declaration of St. Petersburg of 1868, *supra* note 50.

⁶⁵ See Michael Howard, Constraints on Warfare, in The LAWS OF WAR: CONSTRAINTS ON WARFARE IN THE WESTERN WORLD 5-6 (Michael Howard, George J. Andreopoulos & Mark R. Shulman eds., 1994).

⁶⁶ McCoubrey, supra note 17, at 232.

⁶⁷ *Id.*; GREEN, *supra* note 17, at 346.

C. The Hague Peace Conferences of 1899

1. From St. Petersburg to The Hague

The time period after the Declaration of St. Petersburg of 1868 saw continued wars, the transformation of nation-states into countries, treaties (both secret and open) formed, and increased competition between nations for resources and military arms. Escalating industrialization and production capacity required more raw materials, cheaper labor, and new markets.⁶⁸ Nations competed for colonies throughout the world, which led to the formation of larger navies and militaries to project and protect national power abroad.⁶⁹ By 1900, "Europe had turned into a cluster of great armed camps around the powder keg of national aggression" with some asserting that the best way to guarantee peace was through the deterrent effect of weaponry, while others predicted that "the tension would explode into a total inferno unleashing all the weaponry."⁷¹ Against this setting of international strife, on August 24, 1898, Count Michail Mouravieff, the Russian Foreign Minister, handed the ambassadors and foreign ministers posted to St. Petersburg a memorandum from Tsar Nicholas II.⁷² This memorandum, or the Tsar's

The face of war changed in the nineteenth century Technology magnified the power of weapons in the nineteenth century, while mass propaganda demonized the intended targets. Destruction was possible on a scale wider than ever before, and this breadth of scale was matched by an increase in the size of the contesting forces.

David D. Caron, War and International Adjudication: Reflections on the 1899 Peace Conference, 94 Am. J. Int'l L. 7 (2000).

 $^{^{68}}$ See Arthur Eyffinger, The 1899 Peace Conference 10–11 (1999).

⁶⁹ See id. at 10–12. Britain had enjoyed unmatched global colonial domination, with control over land from Ireland to India, Egypt, and South Africa, but increased competition with Germany caused Britain to continue to look to expand its colonial influence. Id. at 11. After France's defeat in the Franco-Prussian War in the early 1870s, France attempted to expand its influence abroad. Id. At the same time, the rising national powers of Germany and Italy sought stature through colonies. Id. Russia also sought to project power through global influence, and by the end of the century, the Far East became a focal point as European powers—and even the United States—sought to influence China and Japan. Id. at 11–12.

⁷⁰ *Id.* at 12. As one author observed,

⁷¹ *Id.* at 13. It is probably difficult for one today to imagine this persistent state of tension. As David D. Caron stated, "[i]n earlier times, war—like disease—was a part of life. There existed then a fatalism about war that no doubt persists in many parts of the world today." *Id.* at 4.

 $^{^{72}}$ *Id.* at 16.

Rescript as it came to be known, proposed a peace conference to "put an end to . . . incessant armaments and to seek the means of warding off the calamities which are threatening the whole world."⁷³ The Tsar's Rescript was somewhat shocking to those who received it, for Tsar Nicholas in only four years as the Tsar of Russia, had developed a reputation as "the very incarnation of militarism . . . a menace to peace and progress wherever Russia had a frontier." 74

True enough, the Tsar's apparent motivation for peace was somewhat less than genuine. In 1897, the French and German armies had developed a quick-firing gun and in 1898, the Austrian army began procuring the weapon.⁷⁵ Russia was inclined to match her competitors in this arms race, but Russia's military was facing a budget crisis; Russia had already decided to increase spending by some seven percent on the imperial fleet, as well as to increase its military presence in Siberia.⁷⁶ The initial proposal was to approach Austria and determine if the two nations could reach a bilateral agreement to avoid purchasing the quickfiring guns.⁷⁷ Count Mouravieff rejected this suggestion for several

he and Kuropatkin should not think of approaching Austria-Hungary alone, for in Vienna such a proposal would no doubt seem proof of Russian weakness. Besides, Witte doubted that an agreement not to buy new artillery could mean an important saving. To him, militarism was the enemy. Although he did not believe that any nation should disarm or leave itself "inadequately protected," he hoped for a reduction of armaments . . . [and] told Muraviev that if the Russian government were to do anything about armaments it must approach many nations . . . [Witte] saw it as "an ideal worthy of the generous initiative of the Tsar."

Id. Witte and Mouravieff had different motives. Witte saw disarmament in terms of economic survival; in 1899 Russia had a foreign debt of approximately six billion rubles. EYFFINGER, supra note 68, at 22. Witte was focused on a strategy to increase productivity and promote commercial and industrial development of Russia's provinces through capital investments in projects like the Trans-Siberian Railway. Id. In Witte's view,

⁷³ EYFFINGER, *supra* note 68, at 17.

⁷⁴ See id. at 16–17 (quoting Merze Tate, The DISARMAMENT ILLUSION: THE MOVEMENT FOR A LIMITATION OF ARMAMENTS TO 1907, at 169 (1942)). ⁵ *Id.* at 21.

⁷⁶ *Id.* The Russians were beginning a program to respond to the growing naval power of Japan in Far East. Id.

CALVIN DEARMOND DAVIS, THE UNITED STATES AND THE SECOND HAGUE PEACE CONFERENCE 5 (1975). The Minister of War, General Kuropatkin, had drafted a document to the Minister of Finance, Sergius Witte, explaining the dilemma of keeping pace with Austria and the difficulty in financing the acquisition. Id. Evidently, Witte recognized this predicament and told Count Mouravieff that

reasons: because it gave France and Germany an advantage over Russia, such technological advances were inevitable, and monitoring any such agreement would be impossible. Mouravieff's idea was to include all of Europe in the treaty, which would provide Russia an advantage by maintaining the status quo in military forces for a decade while Russia could focus on increasing its naval power in the Far East. Ultimately, the Tsar approved the idea of a multinational conference, and despite his militant reputation, the Tsar had a genuine "concern for the horrors of war" that corresponded with his country's need to save money by reducing Russia's arms race with her rivals.

After a strong reaction from most of Europe, 81 Count Mouravieff issued a Second Circular Letter on January 11, 1899 proposing eight subjects for discussion. 82 The governments of Europe received the topics proposed in the Second Circular Letter more favorably, and eventually, Russia set The Hague in the Netherlands as the venue for the conference. 83 On May 18, 1899, the birthday of Tsar Nicholas II, the conference opened with delegations from twenty-six countries in attendance.84 At the second plenary meeting of the conference, the President of the Conference, Baron de Staal of Russia, distributed a plan that called for three commissions to work through the proposed subjects of the conference. 85 The most important commission for the purposes of this article was the work of the First Commission, specifically its military subcommission. At the first meeting of the military subcommission, Colonel Gilinsky of Russia submitted proposals on behalf of Russia to limit the size of armies for five years, to set a specific number of authorized men in the military, and to maintain the present military

[&]quot;peace and disarmament were the keys to economic survival in the short term and prosperity in the long run." *Id.* at 23.

 $^{^{78}}$ EYFFINGER, *supra* note 68, at 22.

⁷⁹ *Id*.

⁸⁰ Id. at 25

⁸¹ See DAVIS, supra note 77, at 6–9; EYFFINGER, supra note 68, at 25–35.

⁸² EYFFINGER, *supra* note 68, at 36–37.

⁸³ See id. at 37–40.

⁸⁴ See Davis, supra note 77, at 22; Eyffinger, supra note 68, at 102–24; William I. Hull, The Two Hague Conferences and Their Contribution to International Law 10–13 (1908). For an in-depth discussion of the countries represented and their delegates, see Eyffinger, supra note 68, at 126–202.

⁸⁵ EYFFINGER, *supra* note 68, at 121–23; HULL, *supra* note 84, at 28–31. The three commissions were organized as follows: I Commission, focused on arms and the use of new weapons in war; II Commission, focused on the laws and customs of war; and III Commission, focused on arbitration and other methods of preventing war between nations. *Id.* at 28–29.

budgets for five years. ⁸⁶ The second and third proposals from Count Mouravieff's Second Circular were also referred to the military subcommittee, where in turn Colonel Gilinsky proposed specific restrictions on certain weapons. ⁸⁷ These restrictions concerned powders and explosives, field guns, muskets, and balloons and contained proposals with specific technical limitations. ⁸⁸ The Russian proposals did not mention the subject of "Dum Dum" bullets, but at the first meeting of the subcommission, during discussions concerning new weapons and methods of warfare, Colonel Künzli of Switzerland proposed banning "projectiles which aggravate wounds and increase suffering," such as the dumdum bullet. ⁸⁹ A Dutch General concurred, stating that "his government had instructed him to demand the formal prohibition" of these bullets. ⁹⁰ Although expanding bullets did not originally appear anywhere as a topic of discussion, the subject of dumdum bullets quickly became the most contentious item discussed in the First Commission. ⁹¹

2. The Dumdum Bullet: The British Response to Fanatics

The dumdum bullet was so named because the British originally manufactured it at the Dum Dum arsenal, near Calcutta, India. The military delegates to the subcommittee had been unable to agree on anything to that point, but the majority of the delegates were unified both in opposition to the use of the dumdum bullet and in ganging up on the British. The chief British military representative, General Sir John Ardagh, soon found himself fighting against the falsities concerning the

⁹¹ Holls, *supra* note 86, at 98 ("The subject of unnecessarily cruel bullets gave rise to more active debate, and developed more radical differences of opinion than any other considered by the First Committee.").

⁸⁶ FREDERICK W. HOLLS, THE PEACE CONFERENCE AT THE HAGUE 72 (1914). Colonel Gilinsky also made similar proposals related to naval forces. *Id.* These proposals "failed miserably" as evidenced by the absence of any such limitations in the final Hague Regulations. EYFFINGER, *supra* note 68, at 204. For a detailed discussion on the inability of the nations to agree to limit arms, forces, or military budgets, see *id.* at 204–19.

⁸⁷ *Id.* at 98; HULL, *supra* note 84, at 170. The second and third proposals of the Second Circular are listed in EYFFINGER, *supra* note 68, at 36.

⁸⁸ HOLLS, *supra* note 86, at 98; HULL, *supra* note 84, at 170–81.

⁸⁹ HULL, *supra* note 84, at 181.

⁹⁰ Id.

⁹² *Id*. at 99.

⁹³ *Id.*

"notorious" dumdum bullet, 94 orchestrated by Russia in "a crusade against British rule in Africa."95 General Ardagh argued that the bullets did not mutilate as described, but were "ordinary projectiles."96 General Ardagh was more correct as the original dumdum, the Mark II, had only "about 1 mm of the jacket at the tip of the bullet . . . [removed, exposing] the soft lead inside."97

The controversy surrounding the dumdum bullets began in April 1898 when Professor von Bruns, a German surgeon, presented the results of his experiments with expanding bullets, allegedly identical to the dumdum bullet, to the Congress of German Surgeons. Professor von Bruns's results were so shocking that the meeting proposed that German military authorities should ban all bullets not completely jacketed. The

⁹⁴ CALVIN DEARMOND DAVIS, THE UNITED STATES AND THE FIRST HAGUE PEACE CONFERENCE 114 (1962). General Sir John Ardagh initially "pretended to take little notice of" the movement to prohibit the dumdum bullet. *Id*.

⁹⁵ EYFFINGER, *supra* note 68, at 227. Dumdum bullets were defined by the Dutch as "inhuman projectiles which make incurable wounds; which have very soft points and very hard jackets, and, with a softer inner substance, explode within the body, thus causing a small hole on entering, but an enormous one on leaving, the body of the victim." HULL, *supra* note 84, at 181. Furthermore, the Dutch thought that such a ban would be in accordance with the principle of unnecessary suffering endorsed by the St. Petersburg Declaration of 1868. EYFFINGER, *supra* note 68, at 224.

⁹⁶ SCOTT, supra note 1, at 332.

⁹⁷ Ronald F. Bellamy & Russ Zajtchuk, *The Evolution of Wound Ballistics: A Brief History, in* Conventional Warfare: Ballistic, Blast, and Burn Injuries 89 (Ronald F. Bellamy & Russ Zajtchuk eds., 1991). Until the middle of the nineteenth century, bullets were made of soft lead, but after the American Civil War, militaries began producing jacketed bullets "in order to increase the muzzle velocity—and thus the range—of small-arms projectiles." *Id.* However, the jacketed bullets became less effective from a military standpoint "because the wounds to nonvital areas were less severe" than unjacketed bullets. *Id.* The British also produced a bullet called a "dumdum" that was hollow pointed, called the Mark V bullet. *Id.* at 89–90. It was during the middle to late nineteenth century that surgeons began describing wounds from newer conoidal bullets as "explosive" in order to describe the effects of the expansion of the bullet. *Id.* at 87–89.

⁹⁸ Alexander Ogston, *The Peace Conference and the Dum-Dum Bullet*, 2 BRIT. MED. J. 278 (July 29, 1899). Sir Ogston's writings in the *British Medical Journal* provide an excellent overview of the debate in Europe over Professor von Bruns's experiment and an in-depth critique of von Bruns's experimental methods. The title of Professor von Bruns's presentation was "On Inhumane Military Projectiles." Alexander Ogston, *The Wounds Produced by Modern Small-Bore Bullets*, 2 BRIT. MED. J. 813 (Sept. 17, 1898).

⁹⁹ Ogston, *The Peace Conference and the Dum-Dum Bullet*, *supra* note 98, at 278. This led to Professor Friedrich von Esmarch, a famous German surgeon, to write an influential and critical letter to the *Deutsche Review* calling for a ban on dumdum bullets at the upcoming Hague Peace Conference. *Id.* at 279. Professor von Esmarch stated that the

criticism of Britain's dumdum bullets soon spread throughout Europe, ¹⁰⁰ and as condemnation of the bullets spread through the continent, British surgeons pointed out the glaring error in the German experiments: Professor von Bruns never tested actual dumdum bullets, but instead used what he inferred was an identical bullet, the hunting bullet fired from the powerful German Mauser rifle. ¹⁰¹ Despite Britain's efforts in 1898 and early 1899 to respond to the falsehoods concerning the dumdum bullet, with the Peace Conference looming, Britain foresaw widespread opposition to the dumdum. ¹⁰²

At the second meeting of the military subcommission, Colonel Gilinsky and Colonel Künzli proposed language prohibiting expanding bullets. ¹⁰³ The delegates generally agreed with the proposals and

dumdum bullet produced injuries that "exceeded the worst anticipations." Alexander Ogston, *English Rifle Bullets*, 1 BRIT. MED. J. 752, 754 (Mar. 25, 1899).

Hostilities between Germany and Great Britain were intensifying, and the Germans conducted experiments to show that deforming bullets fired into long-dead cadavers caused especially massive wounds, and should therefore be banned. However, the bullets that the Germans used in these experiments had higher velocities and much more lead core exposed at the tip than the dumdum bullets did. British and American investigators countered by citing anecdotes to show that the then-new jacketed bullets caused just as much damage as the dumdums did.

The use of bullets whose envelope does not entirely cover the core at the point, or is pierced with incisions, and, in general, the use of bullets which expand or flatten easily in the human body, should be

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¹⁰⁰ See, e.g., Ogston, English Rifle Bullets, supra note 99, at 755 (discussing the use of von Bruns's publication by the French press to criticize Britain's use of the dumdum bullet).

¹⁰¹ Ogston, *The Wounds Produced by Modern Small-Bore Bullets, supra* note 98 at 814–15; Ogston, *English Rifle Bullets, supra* note 99, at 753–55 (including a translation of Professor von Bruns's work as well as criticism of his methods); Ogston, *The Peace Conference and the Dum-Dum Bullet, supra* note 98, at 278–79 (describing Mauser bullets as hunting bullets used to "shoot elephants, rhinoceros, lions, and big game" and "immensely powerful and destructive, and are at present displacing the elephant gun"). These experiments have been described as "marred by extremely emotional political considerations." Bellamy & Zajtchuk, *supra* note 97, at 97.

Id. The biggest issue with the German experiments was that "important methodological standards—such as comparing bullets of like velocities and designs and using similar tissue stimulants in comparable experiments—were ignored." *Id.*

¹⁰² See Ogston, English Rifle Bullets, supra note 99, at 755.

¹⁰³ SCOTT, *supra* note 1, at 338. The Russian proposal read,

committed to submitting final drafts at the next meeting of the subcommission. At the third meeting of the subcommittee, the delegates of Russia, Romania, and France offered a draft text prohibiting expanding bullets. The Austrian delegate, Lieutenant Colonel von Khuepach, opined that the committee should limit itself to a more general proposal that restricted bullets that caused unnecessarily cruel wounds, making the shrewd observation that any bullet has the capacity to mutilate. General Ardagh then made a statement justifying the use of expanding bullets against "savages."

In civilized war a soldier penetrated by a small projectile is wounded, withdraws to the ambulance, and does not advance any further. It is very different with a savage. Even though pierced two or three times, he does not cease to march forward, does not call upon the hospital attendants, but continues on, and before anyone has time to explain to him that he is flagrantly violating the

prohibited, since they do not conform to the spirit of the Declaration of St. Petersburg of 1868.

Id. The Swiss proposal stated, "Prohibition of infantry projectiles such as have the point of the casing perforated or filed, and whose direct passage through the body is prevented by an empty interior or the use of soft lead." *Id.*

¹⁶⁴ See id. at 338–39. General Mounier of France proposed a more general definition for fear that later inventions would allow a nation to avoid a specific definition and asked the committee to confine itself to the use of the term "expansive bullet." *Id.* at 338. The other delegates agreed with this proposition, and Colonel Künzli withdrew his proposal and endorsed the Russian and French language. *Id.* at 339. General Mounier later proposed the wording "The use of expansive or dilatable bullets is prohibited." *Id.* Colonel Coanda of Romania, sensing apparent confusion, clarified that unjacketed "soft" bullets expanding (or dilated) through mechanical effect and proposed mentioning "non-explosive bullets." *Id.*

¹⁰⁵ *Id.* at 343. The joint proposal read, "The use of bullets which expand or flatten easily when penetrating the human body, such as bullets with a hard envelope which does not entirely cover the core or is pierced with incisions, should be prohibited." *Id.*

¹⁰⁶ Id. Specifically, Lieutenant Colonel von Khuepach proposed a

provision embodying a conventional restriction of the use of bullets which produce unnecessarily cruel wounds, without entering into details, especially as it would be impossible to entirely avoid mutilations; for a bullet constructed in any manner will cause such mutilations if it should be deformed by striking on a rock or other hard object before striking the human body.

decisions of the Hague Conference, he cuts off your head. 107

Commentators have seized this language to ridicule the British rationalization for using dumdum bullets in battle, 108 but the British understood that against particularly determined enemies, a normal bullet was not sufficient to place a determined, fanatical opponent hors de combat. Nonetheless, Britain's argument for using "projectiles of sufficient efficacy against savage populations" set in motion a discussion on the complications of using different types of bullets against savages and "civilized peoples." Lieutenant Colonel von Khuepach then made a simple, yet brilliant proposal: "[t]he use of bullets which cause uselessly cruel wounds shall be prohibited by convention." Ultimately, nineteen delegates voted in favor of the final proposal with only Great Britain voting against it and Austria-Hungary abstaining. 111

The three subcommissions presented their reports to the full meeting of the First Commission on June 22, 1899. 112 At that meeting, General Ardagh rose to defend and clear up misunderstandings of the dumdum bullet. 113 General Ardagh thought language "describing technical details of construction [would make] the prohibition a little too general and absolute." ¹¹⁴ He believed the proposed language would abolish the permissible use of bullets that Britain sought to use: "the present or future construction of some projectile with shock sufficient to stop the stricken soldier and put him immediately hors de combat, thus fulfilling

¹⁰⁷*Id.* at 343.

¹⁰⁸ See McCoubrey, supra note 17, at 232 (noting that the British arguments were "manifestly racist in tone and intention"); GEOFFREY BEST, HUMANITY IN WARFARE 162 (1980) (stating that the British argument "was not [edifying], inasmuch as it placed these alleged 'savages' on the same level as big game").

¹⁰⁹ Scott, *supra* note 1, at 343–44. Interestingly enough, Colonel Gilinsky conceded that "[b]y constantly diminishing the caliber [of a bullet] too small a caliber is reached [to stop an attacking enemy], and hence the necessity perhaps of using the dumdum bullet." Id. at 344. Colonel Gilinsky pointed out that, "[a]s to savages, they are of course not guaranteed against the use even of explosive bullets" because of a gap in the St. Petersburg Declaration that applied the Declaration only to the contracting Powers. Id.

¹¹⁰ Id. It is unknown why this proposal did not advance; the official record makes no mention of further discussion on the proposal. General Mounier then modified the earlier proposal of France, Romania, and Russia by adding the term "explosive" to the definition of the prohibited bullets. *Id.* at 347.

¹¹¹ *Id.* at 276; DAVIS, *supra* note 77, at 114–15.

¹¹² DAVIS, *supra* note 77, at 121.

¹¹³ SCOTT, *supra* note 1, at 276.

¹¹⁴ *Id*.

the indispensable conditions of warfare without, on the other hand, causing useless suffering."115 General Ardagh went on to describe how small-caliber, jacketed bullets were not always able to put an enemy hors de combat, leading to the development of the dumdum bullet. 116 General Ardagh clarified that while the dumdum bullet ordinarily put an advancing opponent out of combat, "the result is by no means designed with the aim of inflicting useless suffering."117 General Ardagh tried to explain how the dumdum "acquired a bad reputation in Europe" namely, through Professor von Bruns's flawed experiments with the Mauser bullet, "which did not resemble the dumdum bullets at all, either in construction or effect."118 General Ardagh argued "it is a fact that the erroneous conception formed in Europe about the character" of the dumdum bullet "is entirely due to the wholly false idea that these two projectiles are almost identical in construction."119 General Ardagh declared that "public opinion in England would never sanction the use of a projectile which would cause useless suffering," but as stated in the opening quote of this article, Britain claimed a right and duty to furnish her soldiers with a bullet that would immediately stop an enemy and place him *hors de combat*. 120

The President of the First Commission, Auguste Beernaert of Belgium, stated that the proposed prohibition did not refer directly to dumdum bullets, but was rather akin to the language adopted—and approved by Britain—in the Declaration of St. Petersburg. General Ardagh replied that Britain objected to the specific language: "bullets with a hard casing which does not entirely cover the core or is provided

¹¹⁵ *Id*.

¹¹⁶ *Id*.

¹¹⁷ *Id*.

¹¹⁸ *Id.* Ardagh conceded that Bruns's "experiment prove[d] that a bullet . . . [without a hard jacket] works in a certain sense like an explosive bullet and produces a terrible effect," but he cautioned that this could not "be accepted as evidence or proof against the dumdum bullet," which was an entirely different bullet. *Id.* at 277.

¹²⁰ *Id.* Ardagh noted that no nation raised humanitarian concerns with the use of 20 mm, musket-fired bullets or the 12 mm bullet of the Martini musket, both of which were larger than the 8 mm bullet fired by the Lee-Metford rifle, the rifles used by the British at the time. *Id.* at 277–78. Ardagh affirmed British devotion to the humanitarian principles of the Declaration of St. Petersburg but declared that the proposal before the commission was too technical and instead proposed affirming "the principles enunciated in the Convention of St. Petersburg, that is to say, the prohibition of the use of bullets whose effect is to aggravate uselessly the sufferings of men placed *hors de combat* or to render their death inevitable" *Id.* at 278.

¹²¹ *Id*.

with incisions."122 Further debate continued, with Colonel Gilinsky remarking that to remove such language would strip the prohibition of its reach.¹²³ At this point, Captain William Crozier of the United States, agreed with General Ardagh and proposed the following language: "The employment of bullets which inflict uselessly cruel wounds, such as explosive bullets and in general every kind of bullet which exceeds the limit necessary in order to put a man hors de combat at once, is forbidden."124 Colonel Gilinsky retorted that it would be too difficult to reword the proposed language and that "bullets whose casing contains incisions [causes] cruel wounds The purpose of war is to put men out of action, and ordinary bullets are sufficient for this purpose."¹²⁵

One can sense the overt tension that must have filled the meeting room at this point. General Ardagh must have added to the fervor when he stated his regret that Colonel Gilinsky could not accept modified language and stated that there was no proof "that the dumdum bullet was uselessly cruel." ¹²⁶ Colonel Gilinsky fired back that the "experience of two wars in which the dumdum bullet was used has proved that the wounds produced by this projectile are fearful."127 As the First

¹²² *Id*.

¹²³ *Id.* General Sir John Ardagh declared that he was "obliged to maintain his negative vote inasmuch as the wording amounts to a condemnation of the dumdum bullet." Id.

¹²⁴ Id. at 278–79. General Zuccari of Italy observed that Captain Crozier's proposal was similar to one made by Lieutenant Colonel von Khuepach of Austria-Hungary and stated his preference for less specific language. *Id.* at 279.

¹²⁶ Id. General Sir John Ardagh stated that the Tübingen bullet—the one created by Professor von Bruns for his experiments at Tübingen-was a cruel bullet. Id. Colonel Gilinsky responded that "the Tübingen bullet has never been used in war." Id. The German delegate, Colonel Gross von Schwarzhoff, apparently took offense with the discussion of the Tübingen bullet, stating that "there is no firearm factory at Tübingen," only a "celebrated university . . . [where Professor von Bruns] has spent much of his time studying the effect of small caliber projectiles." Id. Colonel Gross von Schwarzhoff did not know what bullet Professor Bruns used in his experiment, but declared that "it was not the bullet of the German army. And never has there been any question of introducing therein a bullet whose core would not be completely covered by the casing." Id.

¹²⁷ Id. After some more debate, Russia moved for a vote on the original text; twenty nations confirmed the original text, with Britain and the United States voting against and Portugal abstaining. Id. at 279-80. Count de Macedo of Portugal declared that the "difference of opinion among technical delegates" would prevent him from voting on the issue. Id. General den Beer Poortugael (Netherlands), Colonel Gilinsky, and Mr. Beernaert thought that Captain Crozier's proposal was "far too vague." Id. The debate that day must have been contentious because at the next meeting the following day, various delegates requested that the entire record of the debate and discussion on dumdum bullets be attached to the record. Id. at 298.

Commission wound up business on July 17, 1899, the Reporter of the First Commission proposed a limit of five years to the three prohibitions that would go to the full conference. ¹²⁸ Colonel Gilinsky insisted that the prohibition against the use of expanding bullets was meant to continue in perpetuity, as "decided several times by the subcommission and the Commission." ¹²⁹

3. Blood Is Thicker Than Water¹³⁰: American Opposition to the Dumdum Ban

The full Conference considered the First Commission's work on July 21, 1899. The Conference unanimously adopted the prohibition against launching projectiles from balloons and the prohibition against the use of projectiles that discharge asphyxiating gases with the exceptions of Britain and the United States. The next subject for vote was the prohibition against expanding bullets. Captain Crozier intervened to address the entire assembly of delegates to the Conference concerning the proposed ban, and if the contentious nature of the topic of dumdum bullets was uncertain before, Crozier's speech and the animated discussion it generated left little doubt.

Crozier began by recalling the language of the Declaration of St. Petersburg, which forbade weapons which "aggravate uselessly the sufferings of men already placed *hors de combat*, or would render their

¹²⁸ *Id.* at 324. The Reporter believed the lack of unanimity on the three issues—expanding bullets, projectiles emitting asphyxiating gases, and dropping projectiles from balloons—required attention and felt the best way to address the anomaly was to extend the provisions of the St. Petersburg Declaration to the three issues for five years. *Id.*

¹²⁹ *Id.* at 325. The reference to perpetuity does not appear in Scott's record.

¹³⁰ DAVIS, *supra* note 70, at 174. The United States's attack on the declaration against expanding bullets and cooperation with Britain "brought wry comments." *Id.* One delegate "observed that 'blood is thicker than water.' Another laughingly responded, "Yes, the English and Americans do good business." *Id.*

¹³² Hague IV, Declaration I, Concerning the Prohibition, for the Term of Five Years, of the Launching of Projectiles and Explosives from Balloons or Other New Methods of a Similar Nature, July 29, 1899, 32 Stat. 1839, 1 Bevans 270, 26 Martens Nouveau Recueil (ser. 2) 994.

⁽ser. 2) 994.

133 Hague IV, Declaration II, Concerning the Prohibition of the Use of Projectiles Diffusing Asphyxiating Gases, July 29, 1899, 26 Martens Nouveau Recueil (ser. 2) 998, 187 Consol. T.S. 453.

¹³⁴ DAVIS, *supra* note 77, at 79.

¹³⁵ *Id.*

death inevitable,"¹³⁶ and then affirmed that the object of war was to weaken the enemy's military forces and to "place *hors de combat* the greatest number of men possible."¹³⁷ Crozier then once again proposed an amended prohibition on bullets: "The use of bullets inflicting wounds of useless cruelty, such as explosive bullets, and in general all kinds of bullets which exceed the limit necessary for placing a man *hors de combat* should be forbidden."¹³⁸ Crozier went on to argue that the weakness of Russia's proposed language was that it was directed at one class of bullets: those that explode or flatten, leaving open development of other bullets that would remain outside the technical prohibitions of the language, yet still inflict unnecessarily cruel wounds that Crozier's proposal would forbid. ¹³⁹ Crozier stated that if necessary to increase the "shocking power of the bullet . . . what more humane method can be imagined than to have [the bullet] simply increase its size in a regular manner?"¹⁴⁰

He then addressed the dumdum bullet, averring that he had no reason to defend the dumdum bullet and knew nothing about the bullet except what he had learned at the Conference. 141 Crozier then attacked Colonel Gilinsky's claim that the dumdum bullet demonstrated its "great cruelty" in two wars and highlighted Gilinsky's failure to present any evidence to support this assertion. 142 Crozier recalled that the only evidence the Commission heard about the dumdum's potential cruelty was through discussion of the allegedly similar bullets used in Professor von Bruns's Tübingen experiments, details of which were only raised by General Ardagh to deny the cruelty of the dumdum bullet. 143 Crozier declared that his proposed language would not give the dumdum bullet a license, but would prohibit the bullet *only if* "a case can be made out against it." 144

¹³⁹ *Id.* at 80–81. It is notable that Captain Crozier was able to discuss the characteristics of bullets in the same technical manner as is used today. For example, he observed that the advantages of smaller bullets (coinciding with the primary arguments in support of the 5.56 mm round) were a flatter trajectory, greater range, less recoil, and reduced weight. *Id.* at 80. Crozier also discussed the ability to produce a bullet that would tumble end-over-end, noting that "it is well known how easily a projectile can be made to act in this way." *Id.* at 81.

¹³⁶ SCOTT, *supra* note 1, at 79–80.

¹³⁷ *Id.* at 80.

¹³⁸ *Id*.

¹⁴⁰ *Id.* Captain Crozier was referring to expanding bullets.

¹⁴¹ *Id*.

¹⁴² *Id*.

¹⁴³ *Id*.

¹⁴⁴ *Id*.

Crozier closed by asking if it would be better to secure domestic support by presenting "a case, supported by evidence, against any military practice, than to risk arousing a national sentiment in support of the practice by a condemnation of it without proof?" ¹⁴⁵

At this point, the main supporters of the ban of dumdum bullets—Russia, France, and the Netherlands—expressed annoyance in defense of their proposal. 146 Colonel Gilinsky reaffirmed that dumdum bullets were not specifically banned, but then stated that the desire of the ban was to prohibit "the use of a certain category of bullets which have already been manufactured." Gilinsky finished by stating that the language was the result of "mature deliberations in which all the technical experts have taken part, and it would be impossible for the Conference to reverse itself." Captain Crozier "riposted fervently," summarizing his objection to the proposed language with three points: the ban does not prohibit all bullets which are inhumane; the ban was overly broad in that it was possible that an expanding bullet "would not produce needlessly cruel wounds"; and the minutes of the meeting showed that at least the Dutch had specific intent to "forbid the use of the bullet called 'dumdum." Captain Crozier then read Colonel Gilinsky's quote from

¹⁴⁶ *Id.* at 82. The Netherlands began by reminding the Conference that the First Commission had already considered and rejected Crozier's proposal and that to allow the amending language would destroy the work of the First Commission. *Id.* General den Beer Poortugael continued that there was no condemnation of the dumdum bullet, for the dumdum was "a bullet that is not known." *Id.*

[b]ullets of this kind inflict needlessly cruel wounds because the incision permits the lead to come out of the hard envelope and to expand; and not only do these projectiles wound, but they carry away bits of flesh. Such an effect goes beyond the aim of war which is merely to place *hors de combat*.

Id. Gilinsky declared that small caliber bullets, such as the Russian 7.5 mm round, were sufficient to place a man out of combat. *Id.* All other tales of men being shot several times without rendering them *hors de combat* were exceptions that happened "if the bullet touches only the muscles of soft parts of the body, and not the bone, which is comparatively rare." *Id.*

¹⁴⁵ *Id.* at 81–82.

¹⁴⁷ Id. at 83. Colonel Gilinsky stated that

¹⁴⁸ *Id.* The Russian and Dutch insistence that the Conference could not re-examine the ban on expanding bullets indicates their unwillingness to allow the entire body of nations to engage in a factual discussion about the subject.

¹⁴⁹ EYFFINGER, *supra* note 68, at 250.

¹⁵⁰ SCOTT, *supra* note 1, at 83–84. Quoting from the minutes of the First Commission must have been a slap in the face to General den Beer Poortugael, who had just insisted

the minutes that when the caliber of a bullet is too small, it may be necessary to use dumdum bullets. 151 Crozier could not understand how a nation could propose to ban the dumdum bullet on one hand, and argue for the necessity of it on the other. 152

What occurred next highlights the lack of parliamentary experience that existed for most of the nations represented, namely that an amendment must be voted on before the original proposition. 153 This deficiency ultimately stymied Captain Crozier's proposal as it gained momentum before the Conference and prevented the assembled nations from voting on the amended language. 154 Mr. Raffalovich of Russia moved to vote on which formula—the term used for the language of the different provisions—would receive precedence in voting. 155 The head American delegate, Andrew White, proposed sending the issue back to the First Commission to seek language agreeable to all nations. ¹⁵⁶ The nations present rejected this proposal by a vote of twenty to five. 157 The President of the Conference, Baron de Staal of Russia, then proposed voting on the formula approved by the First Commission, to which both General Ardagh and Captain Crozier protested. 158 President de Staal then

before the entire Conference that there was no intent to specifically ban the dumdum bullet.

¹⁵¹ *Id.* at 84.
¹⁵² *Id.* Crozier closed this round of debate by reiterating that, when he originally the amendment was not put to a vote before that body. Id. Colonel Gilinsky reiterated the two months of work in the subcommission where the issue "was conscientiously studied . . . and the [language] worked out in detail." Id. The back and forth of this debate highlighted the lack of experience of parliamentary rules. *See* EYFFINGER, *supra* note 68, at 250–54. EYFFINGER, supra note 68, at 251.

¹⁵⁴ Scott, *supra* note 1, at 84–87. Originally, only Britain stood against the ban on dumdum bullets, but as discussed earlier, the United States later adopted the position. After hearing the debate, the Danish representative remarked that he was not familiar with the dumdum and was not convinced of its cruel effects. Id. at 85. The subsequent voting on procedural matters concerning the Crozier amendments seem to indicate that other nations were more satisfied with the general language of the proposal. See id. at 84–

¹⁵⁶ *Id.* at 85–86. Ambassador White also apologized that the United States could not agree with the Commission on the language, but expressed his view that the weakness of the proposed prohibition was the ban on the specific, rather than the general, allowing the future creation of inhumane bullets not specifically prohibited by the language. Id. He stated, "[T]his is a case in which the letter kills and the spirit gives life". Id.

¹⁵⁷ Id. at 87. The United States, Denmark, Great Britain, Greece, and Portugal voted to send the issue back to the First Commission. Id. 158 Id.

agreed "in a conciliatory spirit . . . to have a vote first on the American formula." This announcement generated even more discussion among the delegates until Jonkheer van Karnebeek, First Delegate of the Netherlands, proposed settling the issue by voting to determine which formula should receive priority. 160 Eight nations voted to give priority to the American formula and seventeen voted to give priority to formula adopted by the commission. 161 Consequently, the language drafted by the Russians, French, and Dutch and approved by the First Commission, was adopted "unanimously" with Great Britain and the United States voting against, Portugal abstaining, and Luxemburg not present. 162 Thus ended the contentious debate over dumdum bullets, and the controversy surrounding this small provision of the 1899 Hague Regulations disappeared from history, save for in the work of a few commentators.

After the American delegation returned home, Secretary of State John Hay and Assistant Secretary of State David Hill studied the Hague Conventions and decided not to send the declaration against the use of expanding bullets to the Senate for ratification. 163 To this day, the Senate has never ratified that declaration. The United States ratified the arbitration convention and the declaration against throwing projectiles from balloons on February 5, 1900; the convention adapting the Geneva Convention of 1864 to maritime warfare on May 4, 1900; and the convention on the laws and customs of land warfare in March, 1902. 164

D. The Hague Peace Conference of 1907

The attention surrounding the 1899 Peace Conference diffused rather quickly, at least in the United States. 165 The Permanent Court of Arbitration was established at The Hague 166 and heard several important cases, including the Pious Fund case, the Alaska Boundary tribunal, and

¹⁵⁹ *Id*.

¹⁶¹ Id. The United States, Belgium, China, Denmark, Great Britain, Greece, Portugal, and Serbia voted to give priority to Captain Crozier's amendment. Id. Luxemburg did not participate in the vote. Id. 162 Id.

¹⁶³ Id. at 196. There is no explanation as to why Secretary Hay and Assistant Secretary Hill thought it "unwise" to send this declaration to the Senate, but it is probably attributable to Crozier and Mahan's strong opposition at the Conference. Id.

¹⁶⁵ DAVIS, *supra* note 77, at 35.

¹⁶⁶ *Id.* at 35–36.

the Venezuela affair. ¹⁶⁷ Wars continued to rage throughout the world: the United States fought a rebellion in the Philippines; ¹⁶⁸ Britain fought the Boer War in South Africa; ¹⁶⁹ the Boxer Rebellion broke out in China; ¹⁷⁰ and in 1904, the Russo-Japanese War began. ¹⁷¹ American involvement in resolving international disputes rose during this period, and by 1904, President Theodore Roosevelt was persuaded to seek a second peace conference at The Hague to address improvements and additions to the 1899 Conventions. ¹⁷²

The happenings and discussions of The Hague Peace Conference of 1907 are beyond the concern of this article, save for the issue of expanding bullets. The program for the Second Conference included "Declarations of 1899" among the topics for discussion. 173 At the first meeting of the first subcommission of the Second Commission on July 3, 1907, Auguste Beernaert presided and noted that the declaration against expanding bullets was "still in force and it does not seem that there should be any occasion for modifying [it]."¹⁷⁴ Beernaert also noted that the subcommission had not yet received any communication on that subject. 175 On July 8, the United States delegation submitted a proposal declaring "[t]he use of bullets that inflict unnecessarily cruel wounds. such as explosive bullets and, in general, every kind of bullet that exceeds the limit necessary for placing a man immediately hors de combat should be forbidden." As the meetings of the Second Commission continued, the Dutch would, much as the Russians did in 1899, thwart the effort of the United States to modify the restrictions on expanding bullets. At the fifth meeting of the subcommission on August 7, 1907, Beernaert stated,

[A]ll discussion on the subject of [expanding bullets] must... be declared out of order. [This Declaration was] concluded for an indefinite period, [it] can be denounced

¹⁶⁷ See id. at 37–90 (providing an overview of these cases).

¹⁶⁸ *Id.* at 37. This rebellion lasted from February 1899 until July 1902. *Id.*

¹⁶⁹ *Id*.

¹⁷⁰ *Id*.

¹⁷¹ *Id.* at 91.

¹⁷² See id. at 91–162 (providing an in-depth discussion surrounding the motives, politics, and events leading to the Second Peace Conference).

¹⁷³ HULL, *supra* note 84, at 187.

¹⁷⁴ 3 James Brown Scott, The Proceedings of the Hague Conferences: The Conference of 1907, at 98 (1921).

¹⁷⁵ *Id*.

¹⁷⁶ *Id.* at 15.

only by means of a notice given one year in advance, and no Power has expressed such an intention. Moreover, the modification or abrogation of [this Declaration] does not appear in the program and the restrictive proposal of the United States is not connected therewith. 177

A plain reading of the minutes from the first meeting on July 3 clearly shows Beernaert never discussed this method of denouncing the Declaration. Fortunately, Brigadier General George B. Davis, The Judge Advocate General of the U.S. Army, saved the record at the next plenary meeting of the Second Commission. ¹⁷⁸

At the next day's meeting of the full Second Commission, General Davis addressed Beernaert's statement of the previous day. General Davis noted that on July 8, the United States had filed a proposal seeking to modify the 1899 Hague Expanding Bullets Declaration. Davis declared that on July 10, "this proposal was printed and distributed in the usual manner," and stated the United States's confusion over Beernaert's claim that no one asked to revise the expanding bullet declaration. Davis further explained that on July 31, the delegation of the United States was told that, because the United States was not a signatory to the declaration on expanding bullets, it was not in a position to denounce that declaration. Davis expressed frustration that the United States had no way of knowing that its proposal "could not be taken into

¹⁷⁷ *Id.* at 153–54. Nowhere in the minutes of this meeting is there a discussion concerning General Davis's proposal to modify the declaration on expanding bullets.

¹⁷⁸ Then-Brigadier General George Breckenridge Davis graduated from the United States Military Academy in 1871. *Gen. George B. Davis Dead*, N.Y. TIMES, Dec. 17, 1914, at 13. General Davis was appointed a judge advocate in 1888 and was then assigned as Professor of Law at West Point. *Id.* General Davis received his law degree from Columbia University in 1891. *Id.* In 1901, General Davis was appointed as The Judge Advocate General of the U.S. Army. *Id.* General Davis was a delegate of the United States to the Second Hague Peace Conference, as well as an accomplished writer on international and military law. *Id.*

¹⁷⁹ *Id.* at 15.

¹⁸⁰ *Id*.

¹⁸¹ *Id.* Apparently, only a power that had signed a declaration of the 1899 Hague Convention could denounce a declaration and suggest a modification, so the United States was "not in a position to denounce it in the manner and form prescribed in the Convention." *Id.*

consideration as being a modification of Declaration No. 3."¹⁸² Davis's argument apparently did not move Beernaert. ¹⁸³

Beernaert then noted that the Russian program for the Conference of "more than a year ago" did not mention modifying the declaration on expanding bullets; he evidently forgot the first meeting on July 3, where he left open the possibility of modifying the declaration. Beernaert then declared that, because no Power had denounced the Declaration, their "full obligatory force" was preserved for a year. Beernaert concluded by observing that General Davis's proposal was identical to that of Captain Crozier in 1899, "which was unanimously rejected as insufficient."

Beernaert's seeming misinterpretation of the denunciation provisions of the 1899 Declaration terminated the last meaningful opportunity to correct the ban on expanding bullets. Even if the United States had succeeded in getting its proposed modification before the subcommission, it is not clear that the United States could have persuaded a majority of nations to amend the Declaration; at the 1907 Peace Conference, Britain and Portugal announced they would sign the 1899 Hague Expanding Bullets Declaration. The Final Act of the 1907 Peace Conference called for a Third Peace Conference to be held within

In the event of one of the High Contracting Parties denouncing the present Declaration, such denunciation shall not take effect until a year after the notification made in writing to the Netherlands Government, and forthwith communicated by it to all the other Contracting Powers. This denunciation shall only affect the notifying Power.

Hague Expanding Bullets Declaration, *supra* note 12 The plain language of the Declaration does not appear to prohibit a later modification to the Declaration.

 $^{^{182}}$ Id. The full text of the 1899 Hague Expanding Bullets Declaration addresses denunciations of the Declaration:

¹⁸³ Beernaert responded by telling General Davis that no other delegation had opposed his exclusion of the proposal during the previous day's meeting. SCOTT, *supra* note 174, at 16. Beernaert flatly stated, "The question can therefore no longer be discussed, but [Beernaert] thinks too that it has been decided correctly." *Id.*

¹⁸⁵ *Id.* As discussed in note 182, *supra*, Beernaert appears to have mistakenly interpreted the denunciation provisions of the Declaration.

¹⁸⁶ *Id.* The record of Captain Crozier's passionate proposal to modify the Declaration in 1899 and the debate it inspired appears to undercut the support Beernaert's accords to the Conference unanimous rejection *See* discussion at Part III.C.3, *supra*.

¹⁸⁷ SCOTT, *supra* note 174, at 154.

eight years, 188 but the outbreak of World War I in 1914 prevented this third conference. No successor conference to the 1907 Peace Conference has ever been held. 189

E. Diplomatic Conferences on International Humanitarian Law, 1974– 1976

Various other conferences and conventions met in the years following World War I, but other than the Geneva Protocol of 1925¹⁹⁰ prohibiting the use of chemical and bacteriological weapons, no real attempt was made to regulate conventional weapons until 1974. 191 After the Geneva Conventions of 1949 were held, numerous conflicts arose that were "characterized by widespread violations of the Conventions or the simple refusal of belligerents to acknowledge that the Conventions have any application to the conflict in which they are involved." ¹⁹² As a result, during the 1970s, the United Nations and the ICRC exchanged proposals for restricting new weapons systems¹⁹³ until finally, in 1974,

outbreaks of violence between Israel and the Arab States, the Nigerian Civil War, the Bangladesh War of Independence, the Vietnam War, the Korean War, several wars between India and Pakistan, a conflict between India and China, the Congo operation by the United Nations, chronic violence over Cyprus, [and] civil war in the Dominican Republic.

¹⁸⁸ Final Act of the Second Peace Conference, Oct. 18, 1907, 3 Martens Nouveau Recueil (ser. 3) 323, 205 Consol. T.S. 216.

DAVIS, supra note 77, at 339.

¹⁹⁰ Protocol for the Prohibition of the Use of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, Feb. 8, 1928, 94 L.N.T.S. 65.

¹⁹¹ R.R. Baxter, Conventional Weapons Under Legal Prohibitions, 1 INT'L SEC, 45 (Winter 1977).

¹⁹² R.R. Baxter, Humanitarian Law or Humanitarian Politics? The 1974 Diplomatic Conference on Humanitarian Law, 16 HARV. INT'L L.J. 1, 4 (1975). These conflicts included:

Id.

193 Id. In 1968, the United Nations held an International Conference on Human Rights in Tehran, Iran, which resolved to request a U.N. study on how to supplement the Geneva Conventions to better protect civilians and other war victims. Id. at 5. The United Nation's incursion into the Geneva Conventions created a conflict with the ICRC. Id. The ICRC had "historically considered itself the guardian of the Geneva Conventions of 1949 and of the "Geneva law" in general. Id. For years the ICRC "was widely regarded as highly knowledgeable about international humanitarian law and as neutral and apolitical." Id. However, the ICRC became more political and soon "the very neutrality and detachment of the I.C.R.C. were to be challenged." Id. In response, in 1971 and

the Swiss Government hosted a Diplomatic Conference on the Reaffirmation and Development of International Humanitarian Law Applicable in Armed Conflicts, with 125 nations in attendance. The Diplomatic Conference of 1974 and those that followed in 1975 and 1976 were expansive. The majority of their work is beyond the scope of this article, save for the attention paid to bullets.

No specific ban on any type of bullets came of the Diplomatic Conferences or the Protocols Additional to the Geneva Conventions of 1949; however, a discussion of the efforts to restrict certain bullets during the 1970s is instructive in understanding the probable confusion, disagreement, and resulting inaction in changing the 1899 Hague Expanding Bullets Declaration. At the 1974 Conference, there was only an "Ad Hoc Committee on Weapons," and the discussion in this body was unremarkable. Most of the real discussion on weapons, especially small caliber bullets, took placed at the various conferences of government experts. Ultimately at the 1974 Conference, the discussion

1972, the ICRC hosted two Conferences of Government Experts to examine and draft new principles of international humanitarian law. Baxter, *supra* note 191, at 46. In 1972, the United Nations then adopted a resolution identifying a potential gap in the ICRC's work, one of which was the "prohibition or restriction of the use of specific weapons which are deemed to cause unnecessary suffering." *Id.* at 46–47. In 1973, the ICRC held a meeting of government experts and agreed to further examine small caliber projectiles. *Id.* at 50. The ICRC took up the task of considering the "prohibition or restriction of certain conventional weapons which cause unnecessary suffering or have indiscriminate effects." *Id.* This caused both internal and external concern at the ICRC. *Id.* For the first time, the ICRC was asked to "assist in the assessment of weapons and their effects—to move from humanitarian law to the law of combat." *Id.* At the 1973 working group of experts, it became obvious to the ICRC that "there was much to be learned about weapons—about their characteristics and their effects." *Id.*

¹⁹⁴ Baxter, *supra* note 191, at 47–51; Baxter, *supra* note 192, at 6–9.

¹⁹⁵ For example, the 1974 Conference "produced some 4.5 million pages of reports, amendments, summary records, and the like." David P. Forsythe, *The 1974 Diplomatic Conference on Humanitarian Law: Some Observations*, 69 AM. J. INT'L L. 77, 88 (1975). The official record of the three Conferences is ten volumes long. *See* INT'L COMM. RED CROSS, DIPLOMATIC CONFERENCE ON THE REAFFIRMATION AND DEVELOPMENT OF INTERNATIONAL HUMANITARIAN LAW APPLICABLE IN ARMED CONFLICTS (1974–1977) (1978).

¹⁹⁶ Baxter, *supra* note 191, at 51. The United States "viewed the proceedings with a great deal of caution . . . [because] a number of governments, without full information or consideration of the issues, had apparently already made up their mind what weapons were lawful." *Id.*

were lawful." *Id.*197 *See id.* at 51–52, 55–56. The real concern arose because nations were using small caliber bullets, like the NATO 5.56 mm round, that had high muzzle velocities, and the bullets tended to tumble in flight. *Id.* at 55. These bullets were alleged to cause wounds that were "very severe and resemble those caused by dum-dum bullets." *Id.* Because of

on bullets was "extremely technical," and even the criteria used to identify the applicable weapons and bullets were "demonstrated to be questionable." Originally, some thought the problem with weapons was high muzzle velocity, but eventually small caliber bullets—that is, bullets smaller than 7.62 mm—became the focus. 199 However, numerous countries were using such bullets and felt strongly about their effectiveness. 200 This fact, coupled with the extensive differences of opinion on the characteristic and effects of these bullets and the arbitrary and highly technical nature of any prohibition on such bullets, contributed to the failure of the Diplomatic Conferences to pass any prohibitions or restrictions on small caliber bullets. 201

F. 1977 Additional Protocols to the Geneva Convention

While the Diplomatic Conferences did not succeed in adopting a specific prohibition on any class of bullets, Article 36 of Additional Protocol I to the 1949 Geneva Conventions (Additional Protocol I) applies restrictions to new weapons systems.²⁰² It is noteworthy that the

this, some nations believed that small caliber bullets caused unnecessary suffering and sought to restrict or ban such weapons and bullets. *Id.*

²⁰¹ *Id.* at 56–57. The debate over weapons was between the "haves" and the "have-nots." *Id.* at 51. Developing nations "resented the technological superiority of the major military powers and of other developed countries." *Id.* The Soviet Union was "in a difficult position throughout the negotiations. Itself a power of high military technology, the Soviet Union could not welcome placing restraints on weapons, but at the same time as the steadfast ally of Third World states," the Soviet Union could not "take a hard line against the technologically-deprived developing states." *Id.* Only the Swedish were really prepared to discuss specific language on bullets. *Id.* In 1976, the Swedish proposed a broad ban on bullets that contained arbitrary and technical language that clearly would have been difficult to enforce. *Id.* at 56. For further analysis of the discussion of small caliber bullets at the Diplomatic Conferences, see FRITS KALSHOVEN, REFLECTIONS ON THE LAW OF WAR: COLLECTED ESSAYS 175–76 (2007).

²⁰² Article 36 reads:

In the study, development, acquisition or adoption of a new weapon, means or method of warfare, a High Contracting Party is under an obligation to determine whether its employment would, in some or all circumstances, be prohibited by this Protocol or by any other rule of international law applicable to the High Contracting Party.

Additional Protocol I, supra note 24.

¹⁹⁸ *Id.* at 56.

¹⁹⁹ *Id*.

²⁰⁰ *Id.*

delegates could only agree on general language to prohibit new weapons. Some delegates had proposed creating a committee responsible for "drawing up a list of weapons or methods of use which would fall under the prohibition," but to some, this implied disarmament and "a proliferation of international bodies which would only complicate the search for a solution." Article 36 is the link between weapons restrictions and the "basic rules" for weapon use outlined in Article 35.²⁰⁴

Under Article 36, the 1899 Hague Declarations are applicable to Article 35²⁰⁵ thus expanding bullets are prohibited regardless of whether a nation develops the bullet Captain Crozier envisioned—one that expands uniformly—and determines that the bullet does not cause superfluous injury or unnecessary suffering. Articles 35 and 36, along with the extensive commentaries on the Diplomatic Conferences, make it clear that in the 1970s, nations could not agree on specific weapons

Additional Protocol I, *supra* note24, art. 35. Article 36 requires Contracting Powers to "determine the possibly unlawful nature of a new weapon, both with regard to the provisions of the Protocol, and with regard to any other applicable rule of international law." COMMENTARY ON ADDITIONAL PROTOCOL I, *supra* note 203, at 423. Nations make this determination "on the basis of normal use of the weapon as anticipated at the time of evaluation." *Id.* There is no body to monitor these determinations; rather, "the Contracting Parties have an obligation to determine themselves" whether the weapons they currently possess or "expect to produce or acquire in the future, are an object of a prohibition or not." *Id.* at 426.

...

²⁰³ INT'L COMM. RED CROSS, COMMENTARY ON THE ADDITIONAL PROTOCOLS OF 8 JUNE 1977 TO THE GENEVA CONVENTIONS OF 12 AUGUST 1949, at 421–22 (Yves Sandoz, Christophe Swinarski & Bruno Zimmerman eds., 1987) [hereinafter COMMENTARY ON ADDITIONAL PROTOCOL I]. The commentaries recognized that "military or political considerations [would] necessarily elude a humanitarian forum." *Id.* at 422.

^{1.} In any armed conflict, the right of the Parties to the conflict to choose methods or means of warfare is not unlimited.

^{2.} It is prohibited to employ weapons, projectiles and material and methods of warfare of a nature to cause superfluous injury or unnecessary suffering.

^{3.} It is prohibited to employ methods or means of warfare which are intended, or may be expected, to cause widespread, long-term and severe damage to the natural environment.

prohibition or not." *Id.* at 426.

205 The commentary to Article 36 states, "Article 36 remains, together with the Hague Regulations, the only instrument in the law of armed conflict that can act as a brake on the abuses resulting from the arms race or on the possibility of future abuses, a possibility that must never be lost sight of . . . !" *Id.* at 427.

restrictions and, therefore, opted for general principles of prohibition. The inability of Sweden and other nations to impose their desired specific restrictions on small caliber bullets raises doubt that the international community, but for the blind adherence to the traditional prohibition against expanding bullets, could today approve the language of the 1899 Hague Expanding Bullets Declaration.

G. Rome Statute of the International Criminal Court

The debate over dumdum bullets was divisive in 1899, but a century later, those disagreements were forgotten history as the Rome Statute continued the unquestioned application of the 1899 Hague Expanding Bullets Declaration. The Rome Statute lists the use of expanding bullets as a war crime in Article 8(2)(b)(xix): "[e]mploying bullets which expand or flatten easily in the human body, such as bullets with a hard envelope which does not entirely cover the core or is pierced with incisions." Article 8(2)(b)(xx) also prohibits "[e]mploying . . . projectiles . . . which are of a nature to cause superfluous injury or unnecessary suffering or which are inherently indiscriminate in violation of the international law of armed conflict." The language in both of these articles is identical to the language of the 1899 Hague Expanding Bullets Declaration and Article 35(2) of Additional Protocol I. What is the reasoning behind this?

The language concerning prohibited weapons was a "highly contentious issue [in the negotiations of the Rome Statute] and indeed might have derailed the Conference but for the compromise reached at the end of the Conference." However, the prohibition on expanding bullets was evidently uncontroversial and was based solely on the existence of the 1899 Hague Expanding Bullets Declaration. Defining the use of expanding bullets as a war crime was seen "as an extension of

 208 The Making of the Rome Statute, *supra* note 27, at 113.

²⁰⁶ Rome Statute, *supra* note 39.

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²⁰⁹ Michael Bothe, *War Crimes*, *in* 1 The Rome Statue of the International Criminal Court: A Commentary 408 (Antonio Cassese, Paola Gaeta & John R.W.D. Jones eds., 2002); The Making of the Rome Statute, *supra* note 27, at 107 ("Those provisions from the Hague Regulations . . . were generally accepted."). In Bothe's writing, the commentary on expanding bullets is under the title of "Dumdum Bullets," reflecting how the 1899 prohibition on expanding bullets is still exclusively linked to Britain's bullet. Bothe, *supra*, at 209.

the customary rule prohibiting the use of weapons which inflict unnecessarily cruel wounds,"²¹⁰ which the Rome Statute also codified in Article 8(2)(b)(xx). The real debate surrounded the inclusion of specific weapons, including controversial weapons like blinding lasers, landmines, and nuclear weapons.²¹¹ Ultimately, the delegates approved restrictions on weapons "subject to the most clearly established classical prohibitions," which appear in paragraphs 8(2)(b)(xvii)–(xix), as well as the general principles of Article 23(e) of the Hague Convention and Article 35(2) of Additional Protocol I.²¹² Thus continued the wayward journey of the prohibition on expanding bullets, from its beginning as a vigorously contested attempt to check Britain's military power, to the United States's failed attempt to modify the ban in 1907, to its established home in the land of unquestioned and highly-praised examples of international humanitarian law.

III. Current U.S. Operations and the Military Necessity of Expanding Bullets

The "savages" the British faced in India and Africa in the late 1800s were similar to the enemies the United States faces today: terrorists who do not use a "fixed distinctive sign recognizable at a distance," do not carry their arms openly, and do not conduct "their operations in accordance with the laws and customs of war." A combat environment that includes densely populated civilian areas and terrorists who do not distinguish themselves from civilians compounds the threat that terrorists pose to U.S. forces today. In 1899, General Ardagh argued that the British needed the "shock" power of dumdum bullets to render their enemies *hors de combat*. Today, U.S. forces need a bullet that allows them to discriminate effects between "the civilian population and combatants and between civilian objects and military objectives" and

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²¹⁰ Bothe, *supra* note 209, at 408. This is interesting given that during the Diplomatic Conferences of 1974–1976, hundreds of nations could not agree on what the effects were of small caliber bullets; apparently, most nations can agree that there was a better understanding of these effects in 1899.

²¹¹ THE MAKING OF THE ROME STATUTE, *supra* note 27, at 113–16.

²¹² *Id*. at 116.

²¹³ Geneva Convention Relative to the Treatment of Prisoners of War, art. 4(A)(2)(c), Aug. 12, 1949, 6 U.S.T. 3316, 75 U.N.T.S. 135 [hereinafter GC III]. ²¹⁴ *Id.*

²¹⁵ *Id.* art. 4(A)(2)(d).

²¹⁶ See Part II.C.2, supra.

²¹⁷ Additional Protocol I, *supra* note 24, art. 48.

also limits excessive "incidental loss of civilian life, injury to civilians, [and] damage to civilian objects." Comparing the rationales for the use of expanding bullets in the nineteenth century and the twenty-first century is not new; the U.S. Army recognized the use of expanding bullets in counterterrorist and hostage rescue situations in 1985. ²¹⁹

A. The United States's Position on Expanding Bullets in Combat

Combat against terrorists who do not distinguish themselves from civilians is not a new phenomenon. With numerous international terrorist incidents of the 1970s and the seizure of the U.S. Embassy in Tehran in 1980, the United States began to take a more comprehensive approach to counterterrorism operations. ²²⁰ In 1985, The Judge Advocate General (TJAG) of the U.S. Army issued a legal opinion discussing the use of expanding bullets by U.S. forces in counterterrorist incidents, ²²¹ which is the most recent official statement by the United States on the use of expanding bullets in combat situations. While TJAG's opinion "acknowledged and respected [the] applicability in conventional combat operations" of the 1899 Hague Expanding Bullets Declaration, TJAG ultimately concluded that the limitations on expanding bullets in combat did not apply to counterterrorist incidents. The reasoning behind the opinion is instructive.

The opinion noted that the signatories to the Hague Expanding Bullets Declaration were focused on "conventional combat operations" as traditionally fought—"combat between lawful combatants on a battlefield relatively devoid of civilians, utilizing a high volume of firepower." Soldiers could not rely on their individual weapons "to defeat the enemy" but, rather, on the combined effects of massed weapons: individual, crew-served, "landmines, hand grenades, and

²¹⁹ Use of Expanding Ammunition by U.S. Military Forces in Counterterrorist Incidents, Op. JAG, U.S. Army, DAJA-IA/No. 7026, 23 Sept. 1985, *as reprinted in* ARMY LAW., Nov. 1985, at 45 [hereinafter Op. JAG, U.S. Army, No. 7026].

²¹⁸ Id. art. 51(5)(b).

²²⁰ See, e.g., Captain James K. Jackson, *Legal Aspects of Terrorism: An Overview*, ARMY LAW., Mar. 1985, at 1 (discussing Department of Defense and Army responsibilities for terrorism within the larger framework of the U.S. Government).

²²¹ See Op. JAG, U.S. Army, No. 7026, supra note 219.

²²² *Id.* para. 2.

²²³ *Id.* para. 4.

²²⁴ *Id.* para. 3.

artillery."²²⁵ These "weapons and [their] ammunition were (and remain) designed for incapacitation rather than lethality"—which supported the prevailing doctrine that "wounding enemy soldiers increased the logistical burden on the enemy."²²⁶ As opposed to conventional combat forces, terrorists usually attack civilians and civilian objects²²⁷—although the terrorists of today also fight against national armed forces. The opinion also distinguished terrorist attacks from conventional combat in that "[s]uch [terrorist] incidents frequently take place in the midst of populated areas or in close quarters where the lives of innocent civilians would be at risk."228

The Judge Advocate General's conclusion that the Hague Expanding Bullets Declaration did not apply to U.S. military forces engaged in counterterrorism incidents relied on the fact that terrorists are not members of national armed forces entitled to the protections of the laws of war.²²⁹ While this distinction is equally applicable to the United States's current operations in Iraq and Afghanistan, the relevance of the opinion to this article is the focus on the utility of expanding bullets in situations where civilians are intermixed with the enemy.

> The purpose for utilization of expanding ammunition in such a very close life-threatening situations is to employ a projectile that deposits all of its energy in the target. This provides for high target selectivity by maximizing the disabling effect on the target while minimizing the aforementioned risk to [innocent bystanders]. ²³⁰

While some have questioned the "knock-down" power of expanding munitions, ²³¹ TJAG's opinion recognized that because expanding bullets are less likely to pass through a target, they reduce the risk of collateral damage to civilians.²³² Additionally, as discussed in Part III.C.2, the excessive injury traditionally attributed to expanding bullets is also questionable. Nevertheless, TJAG's opinion concludes that even "[t]he

²²⁵ *Id*.

²²⁶ See id.

²²⁷ *Id.* para. 4.

²²⁸ Id.

²²⁹ *Id.* The opinion also noted that most counterterrorist missions were likely not recognized as acts of war. Id.

²³⁰ *Id.* para. 4b.

²³¹ See Part III.B.2, supra.

²³² Op. JAG, U.S. Army, No. 7026, *supra* note 219, para. 4b.

possibility of 'superfluous injury' to a terrorist is far outweighed by the humanitarian concerns for protection of the innocent civilians . . . placed at risk." Similarly, in U.S. military operations in Iraq and Afghanistan, the need to reduce collateral damage to civilians is far more important than the disputable and uncertain consequences of the "excessive wounding" theory of expanding bullets.

B. Expanding Bullets and the Counterinsurgency Fight

The United States's counterinsurgency (COIN) operations in Afghanistan and Iraq further underscore the necessity of using expanding bullets in combat operations. The U.S. Army established Army doctrine for COIN in 2006 in Field Manual (FM) 3-24²³⁴ declaring, "[a]t its core, COIN is a struggle for the population's support. The protection, welfare, and support of the people are vital to success."235 The ability to distinguish insurgents from civilians when using force is essential when protecting the civilian population. 236 The law of war principle of distinction is found in Additional Protocol I, Article 48, which states, "In order to ensure respect for and protection of the civilian population and civilian objects, the Parties to the conflict shall at all times distinguish between the civilian population and combatants and between civilian objects and military objectives and accordingly shall direct their operations only against military objectives."237 Field Manual 3-24 states that "[d]iscrimination applies to the means by which combatants engage the enemy. The COIN environment requires [soldiers and Marines] to not only determine the kinds of weapons to use and how to employ them but also establish whether lethal means are desired—or even permitted."238 Field Manual 3-24 further notes that

[1]eaders must consider not only the first-order, desired effects of a munition or action but also possible second-

U.S. DEP'T OF ARMY, FIELD MANUAL 3-24, COUNTERINSURGENCY (15 Dec. 2006) [hereinafter FM 3-24].

²³⁶ See id. paras. 7-30 to 7-37.

²³³ *Id.* para. 5.

²³⁵ *Id.* para. 1-159.

Additional Protocol I, *supra* note 24, art. 48. The United States has not ratified Additional Protocol I but considers Article 48 to represent customary international law. *See* W. Hays Parks, *Air War and the Law of War*, 32 A.F. L. Rev. 1, 113 (1990) ("Article 48 states the fundamental principle of discrimination, a principle with which there should be no disagreement.").

²³⁸ FM 3-24, *supra* note 234, para. 7-36.

and third-order effects—including undesired ones. . . . Fires that cause unnecessary harm or death to noncombatants may create more resistance and increase the insurgency's appeal—especially if the populace perceives a lack of discrimination in their use. . . . Proportionality and discrimination applied in COIN require leaders to ensure that their units employ the right tools correctly with mature discernment, good judgment and moral resolve. ²³⁹

Unfortunately, because expanding bullets are prohibited in combat,²⁴⁰ they are not even an option for commanders who wish to minimize potential second- and third-order effects.

How, then, can a commander limit unnecessary civilian injury and death when engaging an insurgent threat in a crowded civilian area with the current, high-powered jacketed rounds, like the M855, issued to conventional U.S. forces? A commander has two real options: accept risk by restricting the use of small arms fire in certain areas or situations, or rely on escalation of force procedures to identify and respond to hostile acts or demonstrations of hostile intent. As previously discussed, expanding bullets could help a commander limit the effects small arms have on civilians and reduce overall collateral damage. In 2009, retired General Stanley McChrystal, then the Commander of the North Atlantic Treaty Organization's (NATO) International Security Assistance Force (ISAF) in Afghanistan, issued a Tactical Directive to all forces in Afghanistan reinforcing the absolute importance of proportionality and discrimination in COIN: "We must avoid the trap of winning tactical victories—but suffering strategic defeats—by causing civilian casualties

²³⁹ Id

Though, as mentioned in the discussion of Op. JAG, U.S. Army, No. 7026, *supra* 219, it is debatable whether the provisions of the 1899 Hague Expanding Bullets Declaration prohibits the use of expanding bullets in the current conflicts in Iraq and Afghanistan; however one chooses to define those conflicts, they are no longer considered international armed conflicts. *See*, *e.g.*, S.C. Res. 1546, U.N. Doc. S/RES/1546 (June 8, 2004); S.C. Res. 1623, U.N. Doc. S/RES/1623 (Sept. 13, 2005). Additionally, neither Iraq nor Afghanistan are parties to the 1899 Hague Expanding Bullets Declaration. *See* State Parties and Signatories to the Hague Expanding Bullets Declaration, *supra* note 38. ²⁴¹ *See* State Parties and Signatories to the Hague Expanding Bullets Declaration, *supra* note 40, paras. 1-142 to 1-43, 7-22 to 7-23; *see also id.* para. 142 ("In a COIN environment, it is vital for commanders to adopt appropriate and measured levels of force and apply that force precisely").

or excessive damage and alienating the people."²⁴² When General David Petraeus assumed command of ISAF in 2010, he re-emphasized this principle in an updated Tactical Directive, stating: "We must continue—indeed, redouble—our efforts to reduce the loss of innocent civilian life to an absolute minimum. Every Afghan civilian death diminishes our cause. If we use excessive force or operate contrary to our counterinsurgency principles, tactical victories may prove to be strategic setbacks."²⁴³

Nevertheless, protecting the civilian population in urban environments like Baghdad and Kabul often requires deadly force to neutralize insurgents. For example, in early 2010, suicide bombers and other insurgents in Afghanistan attacked the Central Bank on a morning where "the streets of downtown Kabul were jammed with traffic." While no U.S. forces were involved, "hundreds of Afghan commandos, soldiers and police officers surrounded Pashtunistan Square and attacked." Responding to such deadly threats often requires massive amounts of firepower; in this situation "[b]ullets flew in every direction, thousands of them." There is simply no telling what collateral damage thousands of these high-powered jacketed rounds caused.

In such situations where soldiers are faced with overtly hostile acts, lethal force is required, not mitigation of risk. General McChrystal's Tactical Directive instructed NATO ISAF to balance the employment of force with the risk to troops: "I recognize that the carefully controlled and disciplined employment of force entails risk to our troops—and we must work to mitigate that risk wherever possible. But excessive use of

²⁴² Memorandum from Headquarters, Int'l Sec. Assistance Force, to See Distribution, subject: Tactical Directive (6 July 2009) [hereinafter Tactical Directive Memo], available at http://www.nato.int/isaf/docu/official_texts/Tactical_Directive_090706.pdf. While this Tactical Directive is largely concerned with the use of force from close air support (CAS), General McChrystal clearly intended that the principles encompass all uses of force, from small-arms fire to airstrikes from B-1 bombers. See id.

²⁴³ Press Release, Afg. Int'l Sec. Assistance Force, General Petraeus Issues Updated Tactical Directive: Emphasizes "Disciplined Use of Force" (Aug. 4, 2010), *available at* http://www.isaf.nato.int/article/isaf-releases/general-petraeus-issues-updated-tactical-directive-emphasizes-disciplined-use-of-force.html.

²⁴⁴ Dexter Filkins, *Taliban Assault Rattles Capital of Afghanistan*, N.Y. TIMES, Jan. 19, 2010, at A1.

 $^{^{245}}$ Id.

²⁴⁶ *Id.* As one Afghan commando remarked, "Either we are going to kill them, or they are going to kill us." *Id.*

force resulting in alienated population will produce far greater risks."²⁴⁷ A commander's ability to use expanding bullets, might allow him to use controlled and disciplined force in a more discriminate way, while simultaneously reducing the perception that excessive force was employed. However, because no nation uses expanding bullets in combat, we must look elsewhere to determine the potential effectiveness of munitions in urban combat. Fortunately, the experience of domestic law enforcement agencies in the United States, which have used expanding bullets for decades, offers some insights.

C. Reasoning by Analogy: Domestic Use of Expanding Bullets in the United States

Domestic law enforcement agencies in the United States have employed expanding bullets for well over three decades.²⁴⁸ Law enforcement agencies generally cite three advantages expanding bullets offer over normal jacketed ammunition: (1) reduction of ricochets,²⁴⁹ (2) a decrease of "pass through" bullets,²⁵⁰ and (3) "stopping power."²⁵¹ All three of these advantages are linked. Because hollow point bullets expand and tend to stay in the body, they are less likely to pass through a target,²⁵² and law enforcement officers need fewer rounds to incapacitate

²⁴⁷ Tactical Directive Memo, *supra* note 242.

²⁴⁸ See Paust, supra note 15, at 20–23.

²⁴⁹ N.Y. CITY CIVILIAN COMPLAINT REV. BOARD, REPORT OF THE COMMITTEE ON HOLLOW-POINT BULLETS PRESENTED TO THE CIVILIAN COMPLAINT REVIEW BOARD ON JULY 8, 1998, at 1 (1998) [hereinafter NYC HOLLOW-POINT BULLET REPORT], available at http://www.nyc.gov/html/ccrb/pdf/hollow.pdf. ²⁵⁰ Id.

²⁵¹ Tom Hester & Kinga Borondy, *Cops Recite Virtues of Hollow-Point Bullet*, The STAR-LEDGER (Newark, N.J.), Mar. 5, 1997, at 17 (quoting N.J. State Police Capt. Carl Leisinger, who explained, "A main reason for carrying [hollow-point bullets] is that they have better incapacitating ability. When a hollow-point hits a body, the shock is more incapacitating than a solid-nose bullet"); Rocco Parascandola, *Plenty of Other Cities Already Use 'Em*, N.Y. Post, Feb. 14, 1999, at 2 ("'It increases the knockdown power,' Officer James Cypert, an LAPD spokesman, [said]. 'The [old bullets] weren't stopping the suspects'"); Matthew Teague, *Hollow-Point Police Bullets Old Hat Here*, MOBILE REG. (Ala.), July 10, 1998, at A1 ("Because the bullets are quicker to take down a criminal, fewer shots are usually fired, therefore reducing risk to people nearby.").

²⁵² Mike Baird, *Police May Switch to Semi-Autos*, CORPUS CHRISTI CALLER-TIMES, Mar. 15, 2004, at B1 ("Hollow-point bullets take in fluid and tissue while tearing through a body, which causes the slug to expand and slow down... Depending on the angle of the shot, distance, and how it hits, the slug often doesn't exit the body."); Hester & Borondy, *supra* note 251 ("When a bullet has a full metal jacket, it is very hard; it could overpenetrate the target It could pass through the person and hit someone standing

a subject, reducing the potential for injury to bystanders caused by inadvertent hits and ricocheting rounds.²⁵³ These advantages are particularly important for law enforcement officers who tend to patrol in populated urban areas.²⁵⁴

Numerous law enforcement agencies currently employ hollow-point bullets as standard issue,²⁵⁵ but the initial use of hollow-point bullets was controversial.²⁵⁶ For example, when the Connecticut State Police decided to issue hollow-point bullets to troopers in 1974, organizations from church groups to the American Civil Liberties Union (ACLU) and the National Association for the Advancement of Colored People (NAACP) protested the "cruelty and inhumanity inherent in the use of such weapons systems."²⁵⁷ When New York City decided to issue hollow-point bullets to its police officers in 1997, a similar "political storm" brewed, led by civil libertarians opposed to the alleged destructiveness of the ammunition.²⁵⁸ After numerous public complaints, the New York City Civilian Complaint Review Board investigated public concerns, concluding among other things, that the use of expanding bullets was

behind them, or go through a wall, strike someone in their home."); Timothy Williams, *Controversy Swirls in N.Y. in Death of Immigrant*, The STAR-LEDGER (Newark, N.J.), Feb. 14, 1999, at 37 ("Hollow-point ammunition has a much more stopping-power effect than ball ammunition, which tends to go through individuals and cause injuries to innocent civilians as well.").

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²⁵³ Parascandola, *supra* note 251 ("In San Francisco, where cops are armed with .40 caliber hollow-point bullets, the number of rounds fired per shooting incident has dropped since the department started using [hollow-point bullets] in the late 1980s."); Hester & Borondy, *supra* note 251 ("Studies conducted by the FBI and other agencies have found that in combat situations about 20 percent of bullets fired by police find their intended targets."); Teague, *supra* note 251.

²⁵⁴ See, e.g., NYC HOLLOW-POINT BULLET REPORT, supra note 249, at 1 ("Ricochet bullets were particularly problematic in the steel and concrete environments of housing project halls and subway stations. Pass-through bullets were particularly problematic in crowded urban situations."); Teague, supra note 251.

²⁵⁵ Hester & Borondy, *supra* note 251 (noting that the U.S. Drug Enforcement Administration and U.S. Bureau of Alcohol, Tobacco, and Firearms also used hollow-point ammunition); Parascandola, *supra* note 251 ("[Hollow-point ammunition] has been standard issue in big-city police departments across America, including Los Angeles, Chicago, Boston, Dallas, San Francisco and Honolulu—as well as by the FBI and United States Marshall Service.").

²⁵⁶ Paust, *supra* note 15, at 20–21 (discussing the "heated national controversy" that arose in 1974 when the Connecticut State Police Department adopted the .357 magnum revolver with hollow-point bullets as its standard issue."). Paust's article argued the illegality of domestic use of expanding bullets because they are "violative of international law." *Id.* at 23.

²⁵⁷ *Id.* at 21–22.

²⁵⁸ Hester & Borondy, *supra* note 251.

"consistent with modern, enlightened law enforcement judgments in a wide number of jurisdictions—both state and federal—and is a reasonable exercise of the Department's rights and responsibilities in this arena."259 The Board also dismissed fears over "the dangerous propensities of so-called 'dum-dum' bullets," observing that "hollowpoints are neither exploding dum-dums nor fragmenting bullets."²⁶⁰ Ultimately, expanding bullets' ability to disable targets while reducing the risk of collateral injury to innocent bystanders has overcome the exaggerated claims of opponents, resulting in widespread use in the United States. However, the United States's use of expanding bullets in combat, rather than simply law enforcement, would undoubtedly raise excessive "humanitarian" angst—as evidenced in the 1990s by the controversy over Black Talon bullets.

In the early 1990s, Winchester Ammunition produced a bullet called the Black Talon, a bullet that "penetrate[d] soft tissue like a throwing star" and that was notoriously known as a "cop killer[]." In 1993, the bullets drew the attention of New York Senator Daniel Patrick Moynihan²⁶³ after a man shot "twenty-three commuters, killing six," on the Long Island Railroad.²⁶⁴ After the incident, the Black Talon, introduced in 1992, so inflamed anti-gun proponents that Winchester Western eventually limited their sale to law enforcement personnel in 1993.²⁶⁵ The controversy over the Black Talon centered on its apparent increased ability to wound: the bullet "use[d] less powder to minimize

 $^{^{259}}$ NYC Hollow-Point Bullet Report, supra note 249, at 2.

²⁶⁰ Id. at 1, 2. The fact that people evoked the internationally banned—and as argued in this article, completely misunderstood—dumdum bullet as a rallying cry to ban hollowpoint bullets in New York City underscores the sensationalism surrounding expanding

²⁶¹ Judy Pasternak, *Taking Aim at Exotic Bullets*, L.A. TIMES, Jan. 11, 1994, at A1.

²⁶² John Kifner, Terror in Oklahoma: The Suspect; Authorities Hold a Man of "Extreme Right-Wing Views," N.Y. TIMES, Apr. 22, 1995, at A9. The bullets were dubbed "cop killers" because of their ability to "pierce armored vests." Id. Timothy McVeigh was arrested "carrying a 9-millimeter Glock semi-automatic pistol . . . partly loaded with Black Talon bullets." Id.

²⁶³ Daniel Patrick Moynihan, Guns Don't Kill People. Bullets Do., N.Y. TIMES, Dec. 12, 1993, at D15. Senator Moynihan described the Black Talon as "specifically designed to rip flesh." Id.

Id. Colin Ferguson was ultimately convicted of killing six passengers on the Long Island Railroad in 1993. Adam Liptak, Legal Analysis; Rights and Wrongs, Oct. 21, 2003, at A24. Ferguson received a 200-year sentence. Id.

²⁶⁵ Betty Barnacle, S.J. Police Ban Cop Use of Black Talon Bullets, SAN JOSE MERCURY NEWS, Dec. 16, 1993, at B1; Ronald Smothers, Manufacturer to Withdraw Controversial Ammunition, N.Y. TIMES, Nov. 23, 1993, at B9.

recoil and lower velocities so it penetrate[d] but [did] not pass through a human body. On impact it expose[d] sharp penetrating edges that burrow[ed] into soft tissue." Not only were opponents concerned with the alleged cruelty of these bullets, surgeons became concerned "about getting infected with HIV or hepatitis from an encounter with the jagged bits while retrieving a bullet from a wound." However, the "fears associated with . . . the Black Talon . . . [did] not come to pass." In 1995, the Federal Bureau of Investigation (FBI) issued a report that the Black Talon was "no more lethal than other commercially produced ammunition. And no doctors have reported cutting their fingers on its sharp edges."

Similarly, if the United States began using expanding bullets in combat, it is likely that a variety of nations and non-governmental organizations will decry the alleged "cruelty and inhumanity inherent in the use of such" bullets, but, much like the relative silence that followed the widespread adoption of hollow point bullets by domestic law enforcement agencies, the United States should expect time to demonstrate the efficacy of these bullets in combat. ²⁷¹

²⁶⁷ An editorial in the N.Y. TIMES described the Black Talon as "a destructive, razor-fingered bullet . . . [that] grinds up internal organs and threatens surgeons who try to remove it." *High Tech Death from Alabama*, N.Y. TIMES, Dec. 28, 1994, at A14.

²⁶⁶ Barnacle, *supra* note 265.

²⁶⁸ Pasternak, *supra* note 261; *see also* Jane Gross, *New Group Joins Battle Over Guns: Physicians*, N.Y. TIMES, Nov. 16, 1993, at A18. Doctors worried that a "surgeons glove could be easily punctured. 'It's like an Osterizer with blades,' [one surgeon] said." Pasternak, *supra* note 261.

 $^{^{269}}$ Joe Hallinan, FBI Finds Dreaded Bullet No More Lethal Than Others, CLEV. PLAIN DEALER, Jan. 28, 1995, at A4. 270 Id

²⁷¹ See Paust, supra note 15, at 21; Soldiers Accused of Using 'Dum-Dum' Bullets, COPENHAGEN POST, Sept. 30, 2009, available at http://www.cphpost.dk/news/international/89-international/47059-soldiers-accused-of-using-dum-dum-bullets-.html (describing an incident in Afghanistan where three Danish soldiers were found possessing "illegal ammunition" and now "face severe penalties . . . that could see them face life imprisonment"). The Danish branch of Doctors Without Borders described the case of these Danish soldiers as "completely unacceptable." *Id*.

IV. Combat Means Fighting (and Killing) the Enemy²⁷²

As Clausewitz recognized, the object of war has always been the "complete or partial destruction of the enemy." 273 However, as discussed earlier in Part II.B, the exponential growth in weapons technology during the nineteenth century led nations to recognize that the destructiveness of certain weapons exceeded what was required to injure or kill the enemy. As a result, various nations have gathered at different times in order to set limits on the destructiveness of certain weapons. While it is true that often times these nations were motivated more by self-interest than humanitarianism, ²⁷⁴ the principle of unnecessary suffering emerged as a limit on the means nations could employ against each other in combat. The primary source for this principle, The Declaration of St. Petersburg of 1868, ²⁷⁵ recognized that, while the object of war was to "weaken the military forces of the enemy," this objective "would be exceeded by the employment of arms which uselessly aggravate the sufferings of disabled men, or render their death inevitable."²⁷⁶ Specifically, at St. Petersburg in 1868, the assembled nations acknowledged that exploding projectiles surpassed what was necessary to wound or kill the enemy (namely the impact of the projectile itself). Over the last century, some nations and groups have aggressively manipulated the principle of unnecessary suffering, both for political and humanitarian concerns, from one that limits useless destruction to one that seeks to limit any destruction.²⁷⁷ As

Combat means fighting, and in this the destruction or conquest of the enemy is the object, and the enemy, in the particular combat, is the armed force which stands opposed to us . . . What is overcoming the enemy? Invariably the destruction, of his military force, whether it be by death, or wounds, or any means; whether it be completely or only to such a degree that he can no longer continue the contest; therefore as long as we set aside all special objects of combats, we may look upon the complete or partial destruction of the enemy as the only object of all combats.

²⁷² CARL VON CLAUSEWITZ, ON WAR 303, 304 (F.N. Maude ed., J.J. Graham trans., Pelican Books 1968) (1832). Clausewitz said:

²⁷⁴ See discussion in Part II.B and II.C, supra.

²⁷⁵ Declaration of St. Petersburg of 1868, *supra* note 50.

²⁷⁶ *Id*.

See, e.g., Human Rights Council, Report of the United Nations Fact Finding Mission on the Gaza Conflict, 5, A/HRC/12/48 (15 September 2009), available at http://www2.ohchr.org/english/bodies/hrcouncil/specialsession/9/docs/UNFFMGC_Re

discussed earlier in this article, inaccurate and untested information provided the supposed scientific basis for banning the dumdum bullet;²⁷⁸ regrettably, no one has seriously questioned the underlying scientific basis for banning expanding bullets in combat. Part III above explained the military necessity for using expanding bullets; this section explores the principle of unnecessary suffering and whether expanding bullets would pass a contemporary legal review. Because an understanding of how bullets cause injuries is crucial to realizing that they might not cause superfluous injury or unnecessary suffering, the basic principles of wound ballistics are explained first.

A. Wound Ballistics: How Bullets Cause Injury and Death

Under the Standing Rules of Engagement for U.S. Forces, a soldier can use necessary force, up to and including lethal force, in response to a hostile act or demonstration of hostile intent.²⁷⁹ When using force in a hostile situation, the soldier must use only the amount of force necessary to eliminate the threat and apply such force in a proportional manner.²⁸⁰ When a soldier directs lethal force at a legitimate target, he or she does so with the intent to immediately incapacitate that target in order to stop a deadly threat.²⁸¹ At least within the civilian law enforcement context, "immediate incapacitation" means "the sudden physical inability to pose

port.pdf. Though the Law of Armed Conflict permits white phosphorous use in combat operations, see Major Shane Reeves, The "Incendiary" Effect of White Phosphorous in Counterinsurgency Operation, ARMY LAW., Jan. 2010, at 85-88, the Goldstone Report concludes with a recommendation that the General Assembly conduct "an urgent discussion on the future legality" of white phosphorous use "in light of the human suffering and damage" caused in the Gaza Strip.

²⁷⁸ See discussion in Part II.B.2, supra, surrounding Professor Von Bruns faulty bullet experiments.

²⁷⁹ Chairman of the Joint Chiefs of Staff, Instr. 3121.01A, Standing Rules of ENGAGEMENT FOR US FORCES, at A-4 (15 Jan. 2000) [hereinafter SROE]. The current SROE is found in Chairman of the Joint Chiefs of Staff Instr. 3121.01B, Standing Rules of Engagement for US Forces. Chairman of the Joint Chiefs of Staff Instr. 3121.01B, STANDING RULES OF ENGAGEMENT FOR US FORCES (13 June 2005). The overall classification of the current SROE is "secret," but the principles described here are found in an unclassified annex and are substantially the same as the cited 2000 SROE provisions. ²⁸⁰ *Id*.

 $^{^{281}}$ See Urey W. Patrick & John C. Hall, In Defense of Self and Others. . . Issues, FACTS & FALLACIES—THE REALITIES OF LAW ENFORCEMENT'S USE OF DEADLY FORCE 57 (2005). The authors are retired agents from the Federal Bureau of Investigation.

any further risk of death or injury to others."282 Much like in domestic law enforcement, for a soldier, immediate incapacitation—or rendering a target hors de combat—"is the only legitimate goal of any . . . use of deadly force."283 For law enforcement, the ability to immediately incapacitate a subject "is the underlying rationale for decisions regarding weapons, ammunition, calibers and training."284 Therefore, in order determine the ability of a bullet to incapacitate, it is necessary to understand how that bullet causes wounds.

1. The Mechanics of Wounding

There are four components of projectile wounding:²⁸⁵

- 1. Penetration. The tissue through which the projectile passes and disrupts or destroys in passing.
- 2. Permanent Cavity. This is the volume of space once occupied by tissue that has been destroyed by the passage of the projectile. It is a function of penetration and the frontal area of the projectile. Quite simply, it is the hole left by the passage of the bullet.
- Temporary Cavity. This is the expansion of the permanent cavity by stretching due to the transfer of kinetic energy during the projectile's passage.
- 4. Fragmentation. Projectile pieces or secondary fragments of bone which are impelled outward from the permanent cavity and may sever muscle tissues, blood vessels, etc., apart from the permanent cavity. Fragmentation is not necessarily present in every projectile wound. It may or may not occur and should be considered a secondary effect.

Projectiles incapacitate only by damaging or destroying the central nervous system or by causing significant blood loss. 286

²⁸² Id.

²⁸³ *Id*.

²⁸⁴ *Id*.

²⁸⁵ *Id.* at 58.

Bullets fired from a handgun and bullets fired from a rifle will have different wounding effects due to their differing velocities (rifle-fired bullets have higher velocities). Bullets fired from a handgun will produce penetration, permanent cavity, and temporary cavity, but will not reliably cause fragmentation "due to the relatively low velocity of handgun bullets." Fragmentation occurs reliably with unjacketed or hollow point bullets that have a high velocity because "the permanent cavity is stretched so far, and so fast, that tearing and rupturing can occur in tissues surrounding the wound channel that may have also been weakened by fragmentation damage." ²⁸⁹

2. The Human Target: Physiological, Psychological and Physical Factors

The only way to reliably incapacitate a target immediately is with a gunshot to the brain or upper spinal cord. There are many complexities with the human target, including physiological, psychological, and physical factors that are relevant to the probability of incapacitation. The property of incapacitation approaches the property of incapacitation and physiological standpoint, the only reliable way to immediately stop a human is a gunshot causing a wound that disturbs the brain or upper spinal cord; otherwise, the only other way incapacitation occurs is through blood loss that lowers the blood pressure, inducing unconsciousness through oxygen deficits in the brain.

A young, healthy adult can lose about 25% of his blood volume without a substantial effect or permanent injury through compensating mechanisms initiated during physical trauma.²⁹³ However, the body

²⁸⁶ Id.

²⁸⁷ PATRICK & HALL, *supra* note 281, at 59.

²⁸⁸ Id.

²⁸⁹ *Id.* Rifle bullets that fragment can significantly increase tissue damage; however, any fragmentation caused by a handgun bullet is "inconsequential" due to the low velocity of handgun-fired bullets. *Id.* at 59–60.

²⁹⁰Id. at 62.

²⁹¹ *Id*.

²⁹² *Id*.

²⁹³ *Id.* at 62–63. For example, the body can release hormones that cause the heart to beat faster and contract more strongly, increasing heart output. *Id.* at 63. The nervous system constricts the venous system "which contains 60% of the circulating blood volume." *Id.* When blood pressure decreases, "body fluids enter the capillaries to further replenish vascular volume." [Starting quotation marks missing here.] *Id.*

cannot compensate for blood loss beyond 25%. 294 Simply put, incapacitation through blood loss does not happen quickly; even if "the thoracic artery is severed, it will take almost five seconds at a minimum for a 20% blood loss to occur in an average sized male."²⁹⁵ This discussion of blood loss does not take into consideration the oxygen in the blood already in the brain; even if "the heart stops beating and blood flow to the brain ceases, there is enough residual oxygen in the brain to support willful, voluntary action for 10 to 15 seconds."²⁹⁶ Even pain is not normally incapacitating because the "fight or flight" response usually suppresses pain for some time. ²⁹⁷ In sum, beyond a wound to the brain or upper central nervous system, physiological factors do not account for immediate incapacitation, even for fatal wounds.²⁹⁸

Psychological factors are more important than physiological ones to immediate incapacitation, at least concerning gunshot wounds to the torso.²⁹⁹ Minor wounds can cause incapacitation in this manner through "[a]wareness of the injury (often delayed by the suppression of pain); fear of injury, death, blood, or pain; intimidation by the weapon or the act of being shot; preconceived notions of what people do when they are shot; or the simple desire to quit." Interestingly, "psychological factors are also the primary cause of incapacitation failures."³⁰¹ Determination. instinctual survival, "or sheer emotion such as rage or hate can keep a grievously injured individual fighting."³⁰² For example, there are

²⁹⁵ *Id.* Most gunshot wounds do not bleed this quickly because:

⁽¹⁾ bullets usually do not transect (completely sever) blood vessels;

⁽²⁾ as blood pressure falls, the bleeding slows; (3) surrounding tissue acts as a barrier to blood loss; (4) the bullet may only penetrate smaller blood vessels: (5) bullets can disrupt tissue without hitting any major blood vessel resulting in a slow ooze rather than rapid bleeding; and (6) the above mentioned [in the text to this note] physiological compensatory mechanisms.

²⁹⁶ Id. at 63–64; Cox, supra note 3, at 18 ("Even if you take the guy's heart apart, he can still shoot back at you for 15 seconds because he's still got enough oxygen in the blood in his brain to do it.").

²⁹⁷ PATRICK & HALL, *supra* note 281, at 64.

²⁹⁸ Id.

²⁹⁹ *Id.* at 65.

³⁰⁰ *Id*.

³⁰¹ *Id*.

 $^{^{302}}$ *Id.* at 67.

numerous examples of battlefield heroics involving soldiers who continued to fight despite mortal wounds, and all humans, whether Soldiers or terrorists, can "fight and function effectively despite horrific and even fatal wounds." ³⁰³

Chemicals can also prevent or delay incapacitation. "Adrenaline alone can be sufficient to keep a mortally wounded adversary functioning and fighting." Drugs, such as cocaine, PCP, and heroin, as well as "[s]timulants, anesthetics, painkillers, or tranquilizers can all prevent incapacitation by suppressing pain, awareness of injury, or eliminating normal inhibitions arising from a concern over the injury." In short, the psychology of wounds can either contribute to or detract from the seriousness of a gunshot wound, depending on an individual's response.

Physical factors, including "energy deposit, momentum transfer, and size of the temporary cavity" are insignificant or have no effect on immediate incapacitation. The belief that bullets have "knock-down" power or "shock" are false; a "bullet simply cannot knock a man down." This is a proven matter of physics, which has been known for centuries. A bullet deposits about as much energy on the body as getting hit by "a Major League fastball." The only real physical effect a bullet has on incapacitation is tissue damage, but as stated earlier, except for wounds to the central nervous system, this damage will not cause immediate incapacitation. To conclude, the only way to consistently and immediately incapacitate a human with a gunshot wound is through "the disruption or destruction of the brain or upper spinal cord. Otherwise, incapacitation is subject to a random host of

³⁰³ *Id.* at 65–66.

³⁰⁴ *Id.* at 67.

³⁰⁵ *Id*.

³⁰⁶ *Id.* at 68.

³⁰⁷ *Id.* at 68–69. This fact seems to counter General Sir John Ardagh's argument that the dumdum bullet was necessary to "arrest, by its shock, the charge of an enemy and put him *hors de combat* immediately." SCOTT, *supra* note 1, at 277. However, it is likely that Ardagh meant that the greater wounding power of the dumdum bullet required fewer shots than a jacketed bullet to put an enemy out of combat. Experts have noted that "[t]here isn't a bullet in the world" that will cause an enemy to drop every time after just one shot. Cox, *supra* note 3, at 18.

³⁰⁸ PATRICK & HALL, *supra* note 281, at 68–69.

³⁰⁹ *Id.* at 69.

³¹⁰ *Id.*

variables, the most important of which are beyond the control of the shooter."311

3. Misconceptions in Wound Ballistics

A bullet's mass and velocity at impact determine a bullet's potential for damaging tissue; a bullet's shape and construction controls the degree of actual damage that this potential causes.³¹² Once a bullet enters tissue, it "crushes the tissue it strikes during penetration, and it may impel the surrounding tissue outward (centrifugally) away from the missile path."³¹³ This concept is important because "[t]issue crush is responsible for what is commonly called the permanent cavity and tissue stretch is responsible for the so-called temporary cavity. These are the sole wounding mechanisms."314 This tissue "crush" and "stretch" are measured in a laboratory by firing bullets into tissue stimulants.³¹⁵ Because firing bullets into live bodies, cadavers, or even animals presents obvious problems, the tissue stimulant employed is fundamental to achieving valid results; unfortunately, "[t]his requirement is frequently ignored by wound ballistics investigators."316

Many in the field of wound ballistics either don't understand wound ballistics or they manipulate results to suit other agendas.³¹⁷ For example,

Both those who produce weapons and those who treat the wounds they cause need valid information on how projectiles affect the human body. In this regard, both groups have been seriously misled. The body of science in wound ballistics has been badly contaminated to the detriment of all. Some of the misconceptions have resulted

³¹¹ *Id*.

³¹² Martin L. Fackler, Wounding Patterns of Military Rifle Bullets, 1 INT'L DEF. REV. 59, 63 (1989). Dr. Fackler retired as a colonel from the U.S. Army and is a well-known wound ballistics expert. See, e.g., W. Hays Parks, A Symposium in Honor of Edward R. Cummings, 30 GEO. WASH. INT'L L. REV. 511, 536 (2006) (discussing Colonel Fackler's expertise as a "combat-experienced surgeon" whose "pioneering work in the field of wound ballistics through firing small arms projectiles into ten percent ballistic gel was adopted as the NATO standard, and has been accepted by other governments").

³¹³ M.L. Fackler, What's Wrong with the Wound Ballistics Literature, and Why, LETTERMAN ARMY INST. OF RESEARCH, July 1987, at 2.

³¹⁴ *Id.* (emphasis omitted).

³¹⁵ *Id*.

 $^{^{316}}$ *Id.* at 11.

 $^{^{317}}$ Martin L. Fackler, Effects of Small Arms on the Human Body 7 (n.d.) (last visited June 2, 2011), available at http://ammo.ar15.com/project/Fackler_Articles/effects _of_small_arms.pdf. Fackler noted,

in the 1970s while the Swedes were attempting to outlaw the M16 rifle and 5.56 mm bullet, a deceptive video circulated purporting to show the horrific effects of a U.S. 5.56 mm bullet on an anesthetized pig. 318 Similarly, the type of tissue stimulant used in testing a projectile is imperative. "For validity, the stimulant must reproduce the physical effects of the projectile-tissue interaction on the projectile." The two predominantly used tissue stimulants are gelatin and soap. 320 The advantages of gelatin are that its elasticity resembles human soft tissue; it is transparent, which allows for filming to show the effects of a projectile as it moves; and it is cheap. 321 The major disadvantage to gelatin is that it does not preserve the temporary cavity. The advantages of soap are that it preserves the temporary cavity created by a bullet and it is easy to handle.322 The major criticism of soap is that it can mislead due to the "dramatic preservation of the maximum temporary cavity. Such demonstrations give a false impression that these cavities represent the potential for tissue destruction rather than the potential for tissue stretch."323

As Professor von Bruns showed in 1898 and Sweden demonstrated in the 1970s, one can alter the testing methods to support a desired

> from well-meaning attempts by those who forgot the basic precepts of scientific method, and others from politically motivated exaggerations and distortions masquerading as "science".

Id. (citations omitted).

[n]o scale or any other item was included to provide size orientation. How large was the pig? Most would assume the animal to be in the 100- to 150-kg range [220-330 pounds]. It was actually a mini-pig, weighing about one tenth that much. The exaggeration of effects so introduced is obvious.

Id. at 2.

Fackler, *supra* note 313, at 1–2. In that case,

³²⁰ Int'l. Comm. Red Cross, Wound Ballistics; An Introduction for Health, LEGAL FORENSIC, MILITARY AND LAW ENFORCEMENT PROFESSIONALS 11(2008), available http://www.icrc.org/web/eng/siteeng0.nsf/htmlall/f00943/\$FILE/wound-ballisticsbrochure.pdf (last visited Feb. 18, 2010).

³²² Id. The ICRC believes that the only disadvantages of soap are: it is opaque; it must be produced in a factory; and it is expensive. *Id.* ³²³ Fackler, *supra* note 313, at 11.

outcome, so it is important to understand how they work. ³²⁴ If the United States were to announce its intention to use expanding bullets in combat, some nations, as well as the ICRC and other humanitarian organizations, would likely respond with test results purporting to show the incredibly inhumane effects of such bullets. ³²⁵ A familiarity with ballistics testing would be critical to evaluating and responding to that evidence.

B. In War, There Will Be Suffering

1. A Brief History of the Principle of Unnecessary Suffering

Unnecessary suffering is a "core principle" ³²⁶ of the Law of Armed Conflict (LOAC); however, the term has "not been formally defined within international law." ³²⁷ After the initial pronouncement of the principle in The St. Petersburg Declaration of 1868, the term "unnecessary suffering" explicitly entered international law during the Brussels Conference in 1874. ³²⁸ From that conference, Article 13(e) of the Brussels Declaration forbade "[t]he employment of arms, projectiles or material calculated to cause unnecessary suffering, as well as the use of projectiles prohibited by the Declaration of St. Petersburg of 1868." ³²⁹ Literature explaining the intent behind Article 13(e) is scarce, but the Brussels Declaration later served as the basis for fifty-two out of the

See, e.g., BEST, supra note 108, at 156. The 1874 Brussels Conference was an effort led by Russia to codify the laws of war. *Id.*

³²⁴ W. Hays Parks argues that Sweden's objections to many U.S. weapons systems "were not entirely humanitarian." Parks, *supra* note 9, at 70. Parks also observed that Sweden's efforts to "slow North Atlantic Treaty Organization . . . adoption of it as a second calibre so that the Swedish 4.5x26R would be considered." *Id.*

³²⁵ For example, in 1999, the ICRC challenged the 12.7 mm Raufoss Multipurpose round as a "projectile designed to explode upon impact with the human body." *Id.* at 92. After reviewing and discussing the ICRC's test results, the United States and other nations determined that the ICRC testing was fundamentally defective and rejected the ICRC challenge to the round as "both flawed and . . . unacceptable." *Id.* at 97; *see also id.* at 90–98 (providing an overview of the ICRC objection to the 12.7 mm Raufoss Multipurpose round).

³²⁶ See, e.g., Gary D. Solis, The Law of Armed Conflict 250–51, 269–72 (2010); Int'l & Operational Law Dep't, The Judge Advocate Gen.'s Legal Ctr. & Sch., U.S. Army, JA 422, Operational Law Handbook 10–13 (2009).

³²⁷ Parks, *supra* note 9, at 87.

³²⁹ Project of an International Declaration Concerning the Laws and Customs of War [Brussels Declaration], art. 13, Aug. 27, 1874, 4 Martens Nouveau Recueil (ser. 2) 219.

sixty articles in the 1899 Hague Convention II,³³⁰ including the prohibition against unnecessary suffering.³³¹

Article 23(e) of the 1899 Hague Convention II prohibits the employment of "arms, projectiles, or material of a nature to cause superfluous injury." Unlike dumdum bullets, the delegates to the 1899 Hague Peace Conference apparently did not find this provision controversial, as there is little discussion of the rule in the translations. The 1907 Hague Peace Conference essentially restated the 1899 language with a minor change: the new Article 23(e) forbade the employment of "arms, projectiles, or material *calculated* to cause unnecessary suffering" (emphasis added). The English translation of "calculated" seems to narrow the restriction by invoking a *mens rea* requirement, a view later rejected by the ICRC in the commentary to Article 35(2) of Additional Protocol I. 334

2. The Current Law of Unnecessary Suffering

The time period between 1907 and the 1970s saw continued advancement in weapons technology with increasing destructiveness. The ICRC noted that "[t]he discovery of a new means of attack leads to the introduction of a new means of defence, which in turn provokes the introduction of an even more powerful projectile." This back and forth led to a world-wide arms race that "developed with a dizzying speed," unrestricted by "a number of [failed] attempts . . . aimed at prohibiting

³³⁰ Captain Grant R. Doty, *The United States and the Development of the Laws of Land Warfare*, 156 Mil. L. Rev. 224, 235–36 (1998).

³³² Convention with Respect to the Laws and Customs of War on Land (Hague, II), art. 23e (29 July 1899), *entered into force* September 4, 1900. The ICRC translation follows the French term of "superfluous injury" whereas most English translations use the phrase "unnecessary suffering." The terms, although similar, traditionally expressed slightly different meanings. Solis, *supra* note 326, at 270. This article primarily uses the term "unnecessary suffering," but views both terms as synonymous.

Convention Respecting the Laws and Customs of War on Land (Hague IV), art. 23e
 October, 1907), *entered into force* January 26, 1910.
 INT'L. COMM. RED CROSS, WEAPONS THAT MAY CAUSE UNNECESSARY SUFFERING OR

³³⁴ INT'L. COMM. RED CROSS, WEAPONS THAT MAY CAUSE UNNECESSARY SUFFERING OR HAVE INDISCRIMINATE EFFECTS 12 (1973). The ICRC noted that, "[i]n conformity with the authoritative French text, the principle must be stated to be that—irrespective of the belligerents' intentions—any means of combat are prohibited that are *apt* to cause unnecessary suffering or superfluous injury." *Id.*

³³⁵ COMMENTARY ON ADDITIONAL PROTOCOL I, *supra* note 203, at 401.

certain weapons for disinterested humanitarian motives."336 Nonetheless. in 1977, the ICRC and most of the world's nations, finalized the Additional Protocol I, reaffirming the core principle prohibiting unnecessary suffering, and setting the current state of the law.

With the adoption of Article 35(2) of Additional Protocol I, there is more available explanation concerning the meaning of the term unnecessary suffering. Article 35 states that: '[i]t is prohibited to employ weapons, projectiles and material and methods of warfare of a nature to cause superfluous injury or unnecessary suffering." 337 Article 35 did specifically remove the "calculated to cause" language of Article 23(e) of the 1907 Hague Convention because it "was not appropriate." The ICRC took the position that "any injury or suffering of the combatants in excess of that necessary to put the enemy hors de combat" constituted unnecessary suffering.³³⁹ The ICRC recognized this language requires balancing "the nature of the injury or the intensity of suffering on the one hand, against the 'military necessity', on the other hand, before deciding whether there is a case of superfluous injury or unnecessary suffering as this term is understood in war."³⁴⁰ Unfortunately, this balancing test provides no "bright-line rules" as to what constitutes unnecessary suffering. The Commentaries did draw a firm line as pertaining to previously restricted weapons such as dumdum bullets, poison and poisoned weapons, and bayonets with serrated edges, stating that such weapons had been prohibited in various conventions because they cause unnecessary suffering.341

Additional Protocol I also provides some guidance to nations on how to implement Article 35(2) in their weapons programs by way of Article 36, establishing "a link between its provisions, including those laid down in Article 35 (Basic rules) and the introduction of a new weapon by States."³⁴² Article 36 requires contracting parties to determine whether new weapons or means or methods of warfare under "study, development, acquisition or adoption" are prohibited by Additional

³³⁷ Additional Protocol I, *supra* note 24, art. 35.

³³⁸ Commentary on Additional Protocol I, *supra* note 203, at 406–07.

³³⁹ *Id.* at 400.

³⁴⁰ Id. at 407–08

³⁴¹ *Id.* at 404–06. As discussed in Part II.C.2, *supra*, the proof that expanding bullets cause unnecessary suffering is limited to a faulty German experiment conducted in the 1890's.
342 *Id.* at 423.

Protocol I or "any other rule of international law." The United States has not ratified Additional Protocol I and is not bound by its provisions, but does follow the guidance found in Article 36 through the legal review of weapons program instituted by the U.S. DoD. The U.S. review program helps explain the U.S. view and approach to unnecessary suffering, especially as applied to weapons development.

3. Weapons Reviews and Unnecessary Suffering

The United States began a formal legal review of weapons program in 1974 as implemented by DoD Directive 5500.15, *Review of Legality of Weapons under International Law*.³⁴⁵ Department of Defense Directive 5500.15 gives responsibility for legal reviews of weapons to the DoD and charges The Judge Advocate Generals of each respective military service with conducting legal reviews of all weapons acquired by their respective departments.³⁴⁶ Each military department has in turn issued its own regulations for carrying out this assigned responsibility.³⁴⁷ There is no authority to conduct such legal reviews below this national level.³⁴⁸ In 1991, DoD integrated the requirement for a legal review into the DoD acquisition program through DoDD 5000.2, increasing awareness in the acquisition community of the necessity of incorporating the legal review early in the contracting process.³⁴⁹

In the United States, there are three primary reasons for conducting legal reviews of weapons. First, the United States has a legal obligation to implement those treaty obligations ratified in accordance with the U.S. Constitution.³⁵⁰ Second, the "legal review provides the Program Manager as well as the military commander with the acknowledgement of the legality of the weapon or munition in question."³⁵¹ This allows a commander to presume that all issued weapons are legal.³⁵² Finally, the

³⁴³ Additional Protocol I, *supra* note 24, art. 36.

Parks, *supra* note 9, at 109.

³⁴⁵ Ld

³⁴⁶ LA

³⁴⁷ *Id.* at 113. For example, Army guidance is found in Army Regulation (AR) 27-53, *Review of Legality of Weapons under International Law* and Air Force guidance is found in Air Force Instruction 51-402, *Weapons Review. Id.*

³⁴⁸ *Id.* at 110.

³⁴⁹ *Id.* at 112–13.

³⁵⁰ *Id.* at 105–6.

³⁵¹ *Id.* at 106.

³⁵² *Id.*

weapons review itself provides "an instant resource for responding to questions that may arise as to the legality of a particular weapon system or its ammunition." ³⁵³

In most legal reviews, the ultimate issue is either unnecessary suffering or the principle of distinction.³⁵⁴ As to unnecessary suffering, "[t]he main consideration . . . [is] weighing military necessity against the prohibition of weapons of a nature to cause superfluous injury or unnecessary suffering."355 Military necessity is therefore, "an essential factor and important consideration in [conducting] legal reviews.",356 It is important to note that weapons that produce more serious wounding to a combatant do not necessarily cause unnecessary suffering; however, "without some legitimate military necessity, such as increased range or improved accuracy," the reviewer is unlikely to find the weapon legal.³⁵⁷ Thus, in determining whether a weapon causes unnecessary suffering, the United States follows the approach outlined in the Commentaries to Article 35(2) of Additional Protocol I: (1) the United States assesses weapons for "compliance with the terms of any treaty [the United States is a party to], taking into account any reservations . . . entered upon ratification";³⁵⁸ and (2) weighs the injury caused by the weapon in its "normal intended use" with the military necessity of the weapon. 359

356 *Id.* at 124.

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³⁵³ *Id.* Parks cites an instance where a sniper bullet with a hollow tip raised concerns by lawyers in Iraq in 2006; the already conducted legal review allowed a quick response to silence the erroneous apprehension over the bullet. *Id.*

³⁵⁴ *Id.* at 129. Parks notes that the U.S. uses the standard found in the 1907 Hague Convention because the U.S. is not a party to Additional Protocol I. *Id.*

³⁵⁵ *Id.* at 131.

³⁵⁷ *Id.* at 133.

³⁵⁸ *Id.* at 130.

³⁵⁹ *Id.* at 130. It is important to note that, a weapon may have an "increased probability of rendering *hors de combat* enemy combatants," because of its increased effectiveness against an armored target, "increased accuracy," or "improved fragmentation design," but this does not change the unnecessary suffering analysis because the stated objective of these improvements is military necessity, not to "increase enemy combatant lethality." *Id.* at 125.

4. Use of Expanding Bullets in Combat Is Consistent with International Law

Using the methodology described above, the proposed use of expanding bullets in combat should pass legal review. Under the first prong of the analysis, the United States is not a party to the 1899 Hague Expanding Bullets Declaration, "but United States officials over the years have taken the position that the armed forces of the United States will adhere to its terms to the extent that its application is consistent with the object and purpose of article 23e of the Annex to Hague Convention IV."360 While the "calculated to cause suffering" language of the 1907 Hague Convention is out of favor with the international community, it remains the current law for the United States. Thus, while the prohibition against the use of expanding bullets is unquestionably considered customary international law, such use would not violate any of the United States's current treaty obligations. However, because the prohibition against the use of expanding bullets is customary international law, it is binding upon all nations, including the United States (although as argued extensively in the first half of this article, the basis for the status as customary international law is questionable).³⁶¹

The second prong of the legal analysis is weighing the injuries produced by an expanding bullet in its normal intended use with the military necessity of the weapon. The starting point for this part of the analysis is recognizing "that *necessary suffering* to combatants is lawful, and may include severe injury or loss of life." This author is not aware of any publicly available testing results concerning expanding bullets, but as the discussion in Part IV.A above highlights, it is not clear that expanding bullets cause wounding that is extreme or excessive. Certainly, more data is needed in this area, but it is reasonable to believe that if numerous domestic law enforcement agencies employ such munitions, a rational assumption is that expanding bullets do not produce

³⁶¹ See, e.g., id. at 87 ("[a]lthough the United States has made the formal decision that for military, political, and humanitarian reasons it will not become a party to Protocol I, Unites States officials have taken the position that the language of article 35(2) of [Additional] Protocol I... is a codification of customary international law, and therefore binding upon all nations."). *Id*.

³⁶⁰ Parks, *supra* note 14, at 86–87.

³⁶² Memorandum for Office of the Project Manager, Maneuver Ammunition Systems, Picatinny Arsenal, New Jersey 07806-5000, subject: Legal Review for the 5.56MM Lead Free Ball Ammunition, M855 LFS para. 5a (23 June 2008) [hereinafter M855 LFS Legal Review] (copy on file with author).

the horrific wounds described by Professor von Bruns. 363 There is no doubt that all bullets cause some degree of suffering, but even if expanding bullets cause greater suffering than jacketed bullets, such suffering is only considered excessive if "the inevitable result of the normal use causes an injury the nature of which is considered by the governments as excessive in relation to the military advantage anticipated from employment of the weapon or ammunition." Thus, the ultimate test "is whether the suffering is needless, superfluous, or manifestly disproportionate to the military advantage expected from the use of the weapon.",365

The military advantage of using expanding bullets in some combat situations is clearly demonstrated by domestic law enforcement agencies' actual use of expanding bullets: reduction of ricochets, decrease in "pass through" bullets, and greater stopping power. 366 With bullets that are less likely to pass through a target, fewer rounds are required to render an enemy hors de combat;³⁶⁷ fewer rounds fired means there is a reduced potential for collateral damage to innocent bystanders, both through a reduction in actual bullets fired and through a reduction in ricochets of those bullets.³⁶⁸ This reduction in the number of bullets fired will allow American combat forces to better comply with the principle of distinction and to reduce collateral damage caused when engaging lawful targets. In short, as TJAG's 1985 opinion noted earlier, "[t]he possibility of 'superfluous injury' to a terrorist is far outweighed by the humanitarian concerns for protection of the innocent civilians . . . "369 If the United States announced an intention to use expanding bullets in combat, it is likely the international humanitarian legal community would vociferously object; however, aside from the historically

³⁶³ It is also important to note that the bullets Professor von Bruns tested were large caliber hunting bullets fired from a rifle, versus the smaller (e.g., 9mm, 40mm, 45mm) bullets commonly employed in the pistols used by many domestic law enforcement agencies. See, e.g., Ogston, The Peace Conference and the Dum-Dum Bullet, supra note 98, at 278–79.

³⁶⁴ M855 LFS Legal Review, *supra* note 362, para. 5a.

³⁶⁵ Id. (quoting M. Bothe, K. Partsch, and W. Solf, New Rules for Victims of ARMED CONFLICTS 196 (1982)).

³⁶⁶ See discussion at Part III.C.

³⁶⁷ See, e.g., Baird, supra note 252, at B1; Hester & Borondy, supra note 251; Williams, supra note 252, at 37.

See, e.g., Parascandola, supra note 251, at 2; Hester & Borondy, supra note 251; Teague, supra note 251, at A1; NYC HOLLOW-POINT BULLET REPORT, supra note 249, at

^{1. 369} See Op. JAG, U.S. Army, No. 7026, supra note 219.

misconstrued 1899 Hague Expanding Bullets Declaration, such use would be sound and logical under the existing principles of unnecessary suffering, military necessity, and distinction.

V. Conclusion

The ICRC categorizes the prohibition on expanding bullets in combat as customary international law, a stance that flows naturally from the historically unquestioned application of the 1899 Hague Expanding Bullets Declaration by the international community. However, as this article has argued, the ban on expanding bullets was not solely the product of humanitarian concerns, but rather, the unfortunate outcome of a concerted political effort by Britain's rivals to constrain her military power. As a result of a grievously flawed German experiment and widespread misinformation in the European court of public opinion, dumdum bullets were condemned at The Hague without even a single test or accurate report on their actual performance. Captain William Crozier recognized the overly broad language of the prohibition forbade an entire category of bullets, and, over a hundred years later, U.S. military forces remain constrained by that language.

The U.S. operations in Iraq and Afghanistan have revealed a gap in the capabilities of small caliber bullets currently in the military's arsenal. The only option U.S. forces have are high-powered, jacketed bullets that may "pass-through" their intended target, requiring additional bullets to incapacitate a threat. The need to fire additional rounds increases the probability that civilians, who are ever-present in urban combat areas, may be injured or killed. This type of collateral damage is always tragic and runs counter to the COIN objective of protecting the population.

Although the United States is not a party to Additional Protocol I, the United States recognizes many of its articles as reflecting customary international law, including the principle of distinction. The United States only fields weapons that comply with international law³⁷⁰ and strives to ensure the effects of such weapons distinguish between civilians and the enemy.³⁷¹ Unfortunately, the unquestioned application of the 1899 Hague Expanding Bullets Declaration by the international

³⁷⁰ See, e.g., Parks, supra note 9, at 109–13 (describing the United States's program for legal review of new weapons and munitions). ³⁷¹ *See id.* at 128–30.

community has precluded the use of a simple bullet that could improve combatants' ability to discriminate when employing lethal force. Combat experience in the urban environments of Iraq and Afghanistan shows that it is time for the United States to lead an effort to reexamine the use of expanding bullets in certain combat scenarios. Domestic law enforcement use of these bullets has already demonstrated that in certain situations, these bullets are better at stopping criminals, reducing the number of shots fired, and lowering the risk for injury or death to bystanders.

This author does not propose to replace the existing bullet inventory of the United States' armed forces with expanding bullets. There are certainly technical reasons why expanding bullets may not be practical for all weapons systems, and commanders may not want to employ them in many tactical situations. Nevertheless, a historically misconstrued rule should not prevent a commander from outfitting his soldiers with a bullet that could more effectively stop a terrorist and limit collateral damage. While this article has been limited to an analysis of law and policy, determining whether expanding bullets in combat offers actual, practical advantages requires detailed, multi-disciplinary research and analysis. 372 If such research determines that expanding bullets do offer significant advantages, the United States should undertake a concerted reevaluation of the 1899 Hague Expanding Bullets Declaration and the actual humanitarian benefits of employing expanding bullets in combat. There can be no doubt that any such effort will cause a colossal uproar among international humanitarian legal scholars who will argue that expanding bullets cause unnecessary suffering. However, as this article argues, any rational legal review should find that expanding bullets do not cause unnecessary suffering or superfluous injury as those terms are defined under Article 35(2) of Additional Protocol I.

General Ardagh's observations in 1899 about the difficulties in fighting "savages" may seem racist to some, but he knew that fighting radicals was not the same as fighting uniformed soldiers. Continental

Command." *Id.* A similar collection of experts should also evaluate the potential effectiveness of expanding bullets in combat.

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³⁷² For example, a Joint Services Wound Ballistics (JSWB) Integrated Product Team (IPT) convened to analyze the reported shortcomings of the M855 bullet. Dean & LaFontaine, *supra* note 3, at 26. This group consisted of "technical agencies from within the Army, Navy, and Department of Homeland Security; medical doctors, wound ballisticians, physicists, engineers from both the government and private sector; and user representatives from both the Army, U.S. Marine Corps, and U.S. Special Operations

soldiers were likely conscripts, and a bullet wound was good reason to lie down and wait for an ambulance. In contrast, radicals were hell-bent on the destruction of their enemies and were far more likely to fight until death, without regard for the collateral consequences. This is precisely the difficulty the armed forces of the world face today: extremists who seek to kill as many as possible, with little regard for collateral damage or the laws of war. Because these terrorists and extremists often carry out attacks in heavily-populated urban environments, it is time to re-examine the traditional justification for prohibiting the use of expanding bullets in armed conflict. As General Sir John Ardagh recognized, it is the emphatic right and duty of the United States to furnish "our soldiers with a projectile on whose result they may rely," a bullet whose shock is sufficient to stop "the charge of an enemy and put him *hors de combat* immediately," while at the same time reducing useless civilian deaths.

³⁷³ SCOTT, *supra* note 1, at 277.

Appendix

Terminology: Guns and Bullets

Any discussion of bullets requires a basic understanding of the terminology associated with them. First, "firearm" refers generally to guns, although the term "gun" is rather broad, referring to "true guns," howitzers, mortars, and recoilless rifles; obviously, this article focuses on guns in the traditional sense.³⁷⁴ Guns are further divided into handguns (pistols or revolvers) and long guns (rifles or shotguns).³⁷⁵ Guns are either single-shot (the user must remove and load each bullet) or they are semi-automatic or automatic (the spent bullet case ejects itself and the gun automatically loads another bullet).³⁷⁶

"Bullet," "ammunition," "projectile," and "cartridge" are all terms that are used interchangeably, although they all have different meanings. Ammunition is the complete package that a gun fires. Ammunition consists of: the bullet (the actual projectile that a gun discharges from its barrel); the cartridge (the metal casing that holds the bullet, gunpowder, and primer); the gunpowder (the propellant that the primer ignites, causing an explosion and forcing the bullet to separate from the cartridge and move through the gun barrel); and the primer (when the gun's trigger is depressed, the gun's firing pin strikes the primer, setting off a small explosion that ignites the gunpowder). In general, "caliber" refers to the diameter of the cartridge, and, in theory, the diameter of the gun barrel. For example, the M855 cartridge used in the M16 and M4 series rifles is a 5.56 millimeter cartridge.

 $^{^{374}}$ Donald E. Carlucci & Sidney S. Jacobson, Ballistics: Theory and Design of Guns and Ammunition 2 (2008). True guns are "direct-fire weapon[s] that predominantly [fire] a projectile along a relatively flat trajectory," and are either rifled or smooth-bored. $\emph{Id}.$

³⁷⁵ Lisa Steele, *Ballistics*, *in* SCIENCE FOR LAWYERS 7–9 (Eric Y. Drogin ed., 2008). The bore of a rifle is "rifled," meaning it has grooves that impart a twist on the bullet; shotguns do not have rifling. *Id.* at 7.

³⁷⁶ *Id.* Semi-automatic weapons require the user to pull the trigger to fire each shot; automatic weapons will continue to fire while the trigger is depressed. *Id.*

³⁷⁷ *Id.* at 2–6, 9–12.

³⁷⁸ *See id.* at 2–12.

³⁷⁹ *Id.* at 10.

 $^{^{380}}$ U.S. Dep't. of Army, Field Manual 3-22.9, Rifle Marksmanship, M16-/M4-Series Weapons tbl.2-8 (12 Aug. 2008) [hereinafter FM 3-22.9]..

The next important term is "grain," which refers to the weight of the bullet; a grain is 1/7000 of a pound.³⁸¹ The weight of the bullet influences "how much force (kinetic energy) the bullet has when it strikes a target."382 "Core" refers to the actual material of the bullet and is usually used as an expression when the bullet is jacketed.³⁸³ The next principal term is "jacket" and refers to a thin covering on the bullet, usually made of copper, brass, or steel.³⁸⁴ Jackets serve a few purposes: jacketed bullets travel further than unjacketed bullets; 385 the jacket prevents malfunctions caused when pieces of lead from an unjacketed bullet are deposited in the gun's chamber during high rates of fire;³⁸⁶ and jackets reduce the amount of lead dust (a health concern) generated when bullets are fired.³⁸⁷ Finally, "tip" refers to the nose of the bullet, and the tip can be rounded, pointed, or hollow-pointed.³⁸⁸ A bullet with a pointed-tip is more aerodynamic; a rounded-tip bullet is less aerodynamic and travels slower than a pointed-tip bullet; a hollow point bullet "sometimes widens when it enters the body,"389 thus "increasing its drag and [tending] to remain inside the target."390

"Ballistics" is a broad phrase that generally refers to the study of firearms, or "guns." Ballistics is then generally divided into three major fields: interior ballistics, exterior ballistics, and terminal ballistics. ³⁹² Interior ballistics deals with everything that happens with the bullet inside the gun until it leaves the gun barrel. ³⁹³ Exterior ballistics refers to what occurs with the bullet between leaving the gun and striking

³⁸¹ Steele, *supra* note 375, at 10. For example, the bullet in a M855 bullet weighs 62 grains. FM 3-22.9, *supra* note 380, tbl.2-8.

 $[\]overline{^{382}}$ Steele, *supra* note 375, at 10.

³⁸³ See id. at 10–12. For example, the M855 bullet is a "lead alloy core bullet with a steel penetrator." FM 3-22.9, *supra* note 380, tbl.2-8. This means the lead bullet also contains a steel penetrator designed to "penetrate ceramic and metal armor plates used in tactical body armor." Steele, *supra* note 375, at 12.

³⁸⁴ Id. at 10–11; BARBARA B. ROLLINS & MICHAEL DAHL, BALLISTICS 17 (2004).

³⁸⁵ ROLLINS & DAHL, *supra* note 384, at 17.

³⁸⁶ Steele, *supra* note 375, at 11.

³⁸⁷ *Id*.

³⁸⁸ *Id.*; ROLLINS & DAHL, *supra* note 384, at 17.

³⁸⁹ ROLLINS & DAHL, *supra* note 384, at 17.

³⁹⁰ Steele, *supra* note ³⁷⁵, at 11. Steele also notes that hollow point bullets are "less likely to go through standard building materials if [they miss] the target and more likely to be stopped by police body armor if an officer gets in the way of a round fired by another officer." *Id.*

³⁹¹ *Id.* at 1.

³⁹² CARLUCCI & JACOBSON, *supra* note 374, at 4.

³⁹³ *Id.* at xi.

the target. 394 Terminal ballistics refers to the function of the bullet in the vicinity of and on the target. 395

³⁹⁴ *Id.* ³⁹⁵ *Id.*