The Convention on Cluster Munitions: An Incomplete Solution to the Cluster Munition Problem

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ABSTRACT

Cluster munitions have been a significant weapon in the world's arsenals for the last half-century, but their use has drawn sharp criticism for its impact on civilian populations. The weapons function by releasing dozens of small "bomblets" over a wide area. For years the debate over these weapons was focused on whether they violated the norms of international humanitarian law, but the 2008 Convention on Cluster Munitions has altered the discussion, banning the weapons outright. However, the major states that use the weapons, including the United States, have not joined the Convention, and the use of cluster munitions continues. This Note focuses in particular on the American approach to the weapons. It examines the legal status of the weapons and the degree to which U.S. policy has addressed some of the problems associated with them. Finally, it argues that if the United States insists on using cluster munitions, it must create a stricter policy to ensure that its use of the weapons is actually legal.

Therefore, order all your livestock and whatever else you have in the open fields to be brought to a place of safety. Whatever man or beast remains in the fields and is not brought to shelter shall die when the hail comes upon them.

—Exodus 9:19
I. INTRODUCTION

The recent Convention on Cluster Munitions (CCM, Convention) is the latest attempt by the international community to humanize the conduct of war. Previous efforts focused on prohibitions of other weapons, such as landmines.2 A body of law, international humanitarian law (IHL), has also arisen in response to "war crimes," seeking to punish those who use methods that unnecessarily increase the suffering caused by warfare.3 Weapons that violate this body of law may become banned by treaty.4 Prior to the drafting of the Convention, there was debate about the legality of cluster munitions under IHL.5 Cluster munitions are common ordnance in many of the world’s militaries since the rise in use during the Vietnam War.7 International courts have convicted commanders for war crimes due to their use of cluster munitions without ruling on whether the weapons were per se illegal.8 Even after the advent of the Convention, the debate continues.9 Most of the world’s major users and stockpilers of cluster munitions have not signed the CCM,10 and the United States recently made extensive use of the weapons in Iraq and Afghanistan.11

Cluster munitions are capable of causing significant and widespread harm to innocent civilians. Whether this danger is inherent in the weapons themselves or a result of their misuse is

4. Id. at 53–54.
5. See infra Parts IV.A, V.A.
6. See infra text accompanying notes 57–60.
7. See infra text accompanying notes 57–60.
10. See infra text accompanying note 134.
12. See infra Part III.A.
often a central point of contention in the debate over their legality.\textsuperscript{13} Regardless, both sides agree that unintended casualties are a serious problem, and even the U.S. Department of Defense adopted a policy designed to reduce the potential for collateral damage.\textsuperscript{14} The CCM offers a simple solution to the problem—ban the weapons outright. However, without the assent of the world's major users of cluster munitions, the proposal's efficacy in eradicating problems associated with the ordnance is limited.\textsuperscript{15} Efforts to prosecute users for war crimes, whether based on a theory of illegal use or per se illegality, are likewise dependent on the agreement of potential defendants to abide by a treaty.\textsuperscript{16}

Nations that use cluster munitions are reluctant to join treaties that ban the weapons or subject them to war crimes prosecution. As a result, the processes by which these states choose to use the weapons directly impact the credibility of their claims that cluster munitions are legal. Although the United States adopted a policy that will likely reduce the incidence of postwar cluster munition casualties in the future,\textsuperscript{17} it has not adequately addressed the issues of when and how cluster munitions are properly used. Sweeping arguments that commanders must engage in proper balancing of costs and benefits before employing cluster munitions are inadequate, providing little actual guidance. Instead, the United States should adopt a stricter policy on the use of cluster munitions, requiring several absolute conditions to be met before cost–benefit balancing can even begin. Rather than maintaining that cluster munitions may be legal, the United States must ensure that every use of the weapons by American forces is in fact legal. Such an approach would not only decrease the collateral damage associated with American cluster munition use, but could also have the salutary effect of influencing the behavior of other user states by setting a high standard for proper use. Sloppy, ad hoc decision-making processes will become even harder to justify when compared to a thorough and regimented approach.

\textsuperscript{13} See infra text accompanying notes 73–75.  
\textsuperscript{14} Memorandum from Robert M. Gates, U.S. Sec'y of Def., to the Sec'y's of the Military Dep'ts; the Chairman of Joint Chiefs of Staff; the Under Sec'y of Def. for Acquisition, Tech. and Logistics; the Under Sec'y of Def. for Policy; the Commanders of the Combat Commands; and the Gen. Counsel of the Dep't of Def. 1 (June 19, 2008), http://www.defenselink.mil/news/d20080709cmpolicy.pdf [hereinafter Defense Policy Memorandum].  
\textsuperscript{15} See infra Part IV.D.  
\textsuperscript{16} Id.  
\textsuperscript{17} See Defense Policy Memorandum, supra note 14, at 2 (establishing a policy to reduce the number of cluster munition duds left on the battlefield).
II. BACKGROUND

A. Defining Cluster Munitions: How They Work and the Function They Serve

Cluster munitions target an area rather than a single point. This type of ordnance, which can be delivered by several means, consists of a container that releases submunitions, or bomblets, while in flight. The result is a shower of small explosives that cover a large area. The recent Convention on Cluster Munitions, which bans the weapons, defines a cluster munition as "a conventional munition that is designed to disperse or release explosive submunitions each weighing less than 20 kilograms, and includes those explosive submunitions." Although the Convention sets 20 kilograms as the maximum weight for submunitions, in practice submunitions are much smaller. Usually the size of tennis balls or soda cans and weighing only a few kilograms, submunitions are more akin to hand grenades than other bombs. Although small in size, these bomblets are powerful and versatile, often delivering antipersonnel fragmentation, armor-piercing shape charges, and incendiary effects in the same compact package. The multiple effects of the submunitions are designed to achieve the intended uses of cluster munitions; they are deployed against troop formations, vehicle convoys, airfields, antiaircraft weapons, and other targets that combine personnel and light armor.
Today's cluster munitions can be delivered by aerial bombs, artillery shells, artillery rockets, and cruise missiles. The primary weapon, or dispenser, carries scores, even hundreds, of submunitions. At a predetermined point prior to reaching the target, the dispenser releases the submunitions, dispersing them in the air and blanketing the target area. As the bomblets fall to the earth, their explosive mechanisms become armed, usually by rapid spinning or the deployment of small parachutes. Once armed, the submunitions explode either shortly before landing, on contact, or shortly after landing. The submunition casings are often scored to create a fragmentation pattern of uniformly shaped projectiles, rather than irregular shards of metal. These fragments make bomblets powerful antipersonnel weapons, capable of killing or seriously wounding anyone standing within 150 meters of the explosion. Each bomblet essentially acts similar to a powerful variant of the hand grenade. Many submunitions are designed to serve multiple purposes, and thus contain directional charges designed to penetrate armor or an incendiary element, such as zirconium, which burns at a very high temperature. The anti-armor bomblets usually must land in a particular manner to detonate, in order to ensure that the charge fires in the right direction. Thus, they are usually stabilized by parachutes in their descent.

The size of the "footprint," the area covered by the bomblets, varies based on several factors, including release altitude, wind, and number of submunitions. Roughly speaking, however, most cluster munitions are designed to have a footprint at least the size of a football field, and often larger. When multiple cluster munitions are deployed in tandem, the area multiplies. For example, the U.S. Army's Multiple Launch Rocket System can fire twelve rockets together, creating a footprint roughly sixty football fields in size.

26. Wiebe, supra note 18, at 89.
27. Id.
28. Id.
29. Id. at 128.
30. McDonnell, supra note 22, at 44.
31. Id.
32. Wiebe, supra note 18, at 90.
33. McDonnell, supra note 22, at 45.
34. Id.
35. Id.
36. Wiebe, supra note 18, at 89.
37. McDonnell, supra note 22, at 45.
38. Id.
39. Id.
41. McDonnell, supra note 22, at 47 (stating that a typical CBU-87B cluster bomb has a footprint of over five football fields).
42. Wiebe, supra note 18, at 110.
fully loaded B-52 bomber, delivering forty cluster bombs in a “carpet bombing” attack, can cover over 27,000 football fields.\(^{43}\) Multiple cluster munitions can also be targeted at the same point, increasing the saturation of submunitions within the footprint.\(^{44}\) Although some cluster munitions have precision guidance systems,\(^{45}\) the vast majority are not “smart bombs” and are unguided once fired or released. The same factors that affect the size of the footprint affect the accuracy of the weapon as a whole—the location of the footprint can vary by distances as large as the footprint itself.\(^{46}\)

The initial appeal of cluster munitions during the Vietnam War was this ability to blanket large areas with just a few bombs. American aircrews put them to use in attacking enemy antiaircraft positions.\(^{47}\) Because today’s sophisticated guidance systems were not yet in existence, hitting a relatively small target with a unitary bomb was a difficult task that often required an aircraft to fly low, making it more susceptible to antiaircraft fire.\(^{48}\) Cluster munitions offered a solution to this problem. By covering a wide area with small but powerful bomblets, they increased the margin of error when aiming at small targets and allowed attacking planes to maintain safer altitudes.\(^{49}\) The same properties that made the bombs useful in attacking small singular targets offered advantages in attacking troop columns and vehicles—not only was accuracy less of a concern than with a unitary bomb, but the ability to engage multiple targets at once increased the weapons’ utility.\(^{50}\) Responding to political pressure, American commanders also began using cluster munitions in situations where they had previously been using napalm.\(^{51}\)

**B. History: The Development of Cluster Munitions and Their Current Use**

Ordnance designed to target multiple enemies with a single discharge can be traced back to the grape and canister shot used by

\(^{43}\) Id. at 93.

\(^{44}\) Id. at 110 (comparing “salvo” fired cluster bombs to Godzilla stomping a single location).

\(^{45}\) Id. at 127–28.

\(^{46}\) See, e.g., id. at 123 (describing the possible landing area of one type of cluster munition as having a 600 meter radius, comparing a bomb’s footprint of 150 by 200 meters).


\(^{48}\) Id.

\(^{49}\) Id.

\(^{50}\) Defense Policy Memo, *supra* note 14, at 1.

\(^{51}\) McDonnell, *supra* note 22, at 41.
artillery crews before the invention of explosive shells, but cluster munitions as they exist today were developed in the twentieth century. German and Soviet forces used cluster munitions on the Eastern Front in World War II, and the Germans also used them in the bombardment of Great Britain. However, the weapons saw their first widespread use in the Vietnam War. Since Vietnam, cluster munitions have been used by over twenty states, as well as some non-state actors. Cluster munitions were used in the first Gulf War, the Balkans, Chechnya, the conflict between Ethiopia and Eritrea, Afghanistan, Iraq, and in Israel's conflict with Hezbollah forces in Lebanon, as well as in over a dozen other instances. Thirty-four states manufacture or have manufactured cluster munitions, including China, India, Israel, Pakistan, Russia, the United Kingdom, and the United States. The United States remains a leader in the use and development of cluster munitions. American forces deployed roughly 800,000 cluster bombs during the Vietnam War and used them extensively in the first Gulf War, as well as in the current wars in Afghanistan and Iraq. Currently, all four branches of the American military employ cluster munitions. American-made cluster munitions have become part of foreign arsenals, most notably that of Israel, which used over four million cluster submunitions in its 2006 conflict with Hezbollah in Lebanon. Although Israel manufactures its own cluster munitions, those used in 2006 were largely American made. NATO forces, primarily American and British, used cluster munitions extensively in the 1999 aerial bombing campaign over Kosovo.

54. Id.
55. Id.
56. Id.
57. Human Rights Watch, supra note 53.
58. Id.
59. Id.
61. Human Rights Watch, supra note 53.
62. See Docherty, supra note 3, at 66–67 (quoting a Marine officer who chose not to use cluster munitions in Iraq); Lacey, supra note 9, at 28 (comparing the relative size of Army and Air Force arsenals); Wiebe, supra note 18, at 128 (discussing the Navy's limited use of cluster munitions in Kosovo).
63. Human Rights Watch, supra note 53.
65. Wiebe, supra note 18, at 127.
Considering that the weapons were developed during the Cold War, it is perhaps not surprising that the Russian military also stockpiles and uses cluster munitions, recently employing them in Chechnya and Georgia.\textsuperscript{66}

The use of cluster munitions is not limited to industrial powers and the world’s largest militaries. These weapons are also used by smaller states and non-state actors. Georgian forces fired rockets containing cluster munitions at Russian troops in the 2008 conflict.\textsuperscript{67} In their 2006 war, both Israel and Hezbollah used cluster munitions.\textsuperscript{68} Smaller states have not limited their use of cluster munitions to conflicts with larger states, but have also used them against each other. Ethiopia and Eritrea both used cluster munitions against each other in their 1998 war.\textsuperscript{69} In 1995, the now-defunct Republic of Serbian Krajina fired rockets carrying cluster munitions into Croatia.\textsuperscript{70} These conflicts are just a few examples of the use of cluster munitions over the last fifteen years.\textsuperscript{71} Although cluster munitions are probably most closely associated with the United States and other world powers, their use and impact are global.

III. THE CONVENTION ON CLUSTER MUNITIONS

Despite their popularity among the world’s militaries,\textsuperscript{72} cluster munitions have drawn criticism for their impact on civilian populations. Some scholars have argued that the weapons violate traditional norms of international humanitarian law (IHL).\textsuperscript{73} Individuals and states have been successfully prosecuted in international tribunals for specific uses of cluster munitions that were deemed to violate IHL.\textsuperscript{74} However, these tribunals have not yet held the use of cluster munitions to be a per se violation of IHL.\textsuperscript{75}

\begin{itemize}
\item \textsuperscript{66} HUMAN RIGHTS WATCH, supra note 53.
\item \textsuperscript{67} Michael Schwirtz, Georgia Fired More Cluster Bombs than Thought, Killing Civilians, Report Finds, N.Y. TIMES, Nov. 6, 2008, at A18.
\item \textsuperscript{68} HUMAN RIGHTS WATCH, supra note 53.
\item \textsuperscript{69} Id.
\item \textsuperscript{70} Virgil Wiebe, For Whom the Little Bells Toll: Recent Judgments by International Tribunals on the Legality of Cluster Munitions, 35 PEPP. L. REV. 895, 916–17 (2008).
\item \textsuperscript{71} HUMAN RIGHTS WATCH, supra note 53.
\item \textsuperscript{72} See supra text accompanying notes 57–60.
\item \textsuperscript{73} See, e.g., Wiebe, supra note 18, at 112 (discussing the indiscriminate nature of cluster munitions).
\item \textsuperscript{74} See generally Wiebe, supra note 70 (analyzing convictions of a political leader in the former Yugoslavia and the Eritrean state for the use of cluster munitions).
\item \textsuperscript{75} McDonnell, supra note 22, at 108–18.
\end{itemize}
Additionally, cluster munitions are not banned under the Convention on Conventional Weapons (CCW).  

After the most recent revision of the CCW failed to ban cluster munitions, a group of states and nongovernmental organizations drafted a new treaty specifically aimed at banning cluster munitions. The result was the Convention on Cluster Munitions. As explained below, the impetus behind this movement was the great harm suffered by civilian populations due to the use of these weapons.

A. Wide Footprints and High Dud Rates: Why Cluster Munitions Are Particularly Harmful to Civilians

Opponents argue that the use of cluster munitions violates the IHL principles of proportionality and distinction. These arguments stem from two characteristics of cluster munitions: their wide footprints and high dud rates. Cluster munitions, like other unguided ordnance, inevitably have the potential to miss their targets. The wide footprints created by the submunition cluster patterns exacerbate the ordinary risk of missing a target. The area likely to be affected by an off-target cluster bomb is greater than that of an off-target unitary bomb because rather than striking one location, the submunitions blanket surrounding areas. However, the dangers that cluster munitions pose to civilians are not limited to occasions when the bombs “miss.” The very nature of the weapons makes them likely to affect people and structures other than the objective even if they are directly on target; persons standing one hundred meters away can still be at risk of death or wounding by the submunitions. Thus, even perfectly executed strikes aimed at military objectives can result in significant collateral damage if the target is located in close proximity to civilians.


78. Id. at 149–50.

79. Wiebe, supra note 18, at 112. For a discussion of the principles of proportionality and distinction, see infra Part IV.A.

80. Id. at 123.

81. See id. at 140–42 (describing effects of an off-target cluster bomb in Nis, Serbia during NATO bombing of Kosovo).

82. Id. at 89.
Perhaps even more alarming than cluster munitions' wide footprints is the issue of their high dud rates. Generally, some percentage of all ordnance are faulty, leaving unexploded ordnance (UXO) on the battlefield. Official estimates, including those supplied by manufacturers, state that the failure rate of submunitions is about 5 percent, meaning these weapons are just as likely to be duds as any other bombs. However, estimates of dud rates in practice are much higher, ranging from 10 to as high as 30 percent. Battlefield conditions differ significantly from manufacturer testing conditions, accounting for these increased failure rates. The stresses of flying, particularly takeoffs, landings, and combat maneuvering, likely increase dud rates. Moreover, many of the cluster munitions used in combat were stockpiled for years, even decades, increasing the chances of faultiness. Some submunitions, such as the armor-piercing varieties that must land properly to explode, may fail to explode if they land on an angle. Terrain can also affect dud rates. Soft surfaces like desert sand and jungle marshes may not provide the resistance needed to detonate the bombs. Submunitions with parachutes can become entangled in tree limbs. As a result of high dud rates, thousands of unexploded bomblets disperse on battlefields.

Unexploded submunitions are even more harmful than other unexploded bombs. For example, an unexploded 500-pound bomb is larger in size and easily identifiable as hazardous. The small size of the bomblets creates two significant problems. First, they are difficult to detect and can lay hidden in mud, water, and even on rooftops. They can remain volatile for years after their arming; even today, submunitions released during the Vietnam War kill and wound farmers in Southeast Asia. The widespread distribution of easily hidden bomblets makes clearance efforts difficult, and can

84. Wiebe, supra note 18, at 118.
85. Id.
86. Docherty, supra note 3, at 63.
87. Wiebe, supra note 18, at 118.
88. Id.
89. NASH, supra note 64, at 10 (showing photograph of failed cluster bomb from 2006 Israel–Hezbollah War, manufactured in the 1970s).
90. Wiebe, supra note 18, at 118.
91. McDonnell, supra note 22, at 51; Wiebe, supra note 18, at 118. This is of special concern considering the large-scale use of cluster munitions in places like Iraq and Southeast Asia.
92. Wiebe, supra note 18, at 124.
94. Docherty, supra note 3, at 63; Wiebe, supra note 18, at 118.
95. Wiebe, supra note 18, at 91–92.
render areas uninhabitable for years after the guns have gone silent. In this regard, cluster munition duds are very much like active landmines. In fact, armed unexploded bomblets can be worse than mines because they are often less stable. Second, even visible bomblets are problematic. The small size and bright colors of bomblets attract children, who think they are toys. The bright color schemes are used to make the submunitions easier to spot for clearance crews searching for duds, but they have the perverse effect of catching children's eyes. Additionally, their appearance is similar to humanitarian aid packages, exacerbating the problem. Even if cluster munitions had the same dud rates as other types of ordnance, they are more dangerous to civilians than other types of UXO because of the size and appearance of the bomblets.

B. The Push to Ban Cluster Munitions via Treaty

Although some scholars argue that cluster munition use violates principles of IHL, at least when in proximity to populated areas, and some individual users have been found liable of war crimes in international courts, the international community never banned them outright in arms treaties until the CCM. The Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on Their Destruction (Land Mine Treaty), drafted in 1997, defines mines narrowly to exclude cluster munitions, even though cluster munitions duds create many of the

96. NASH, supra note 64, at 16.
98. McDonnell, supra note 22, at 55.
99. Docherty, supra note 3, at 63.
100. Lacey, supra note 9, at 30.
101. Ching, supra note 11, at 140 (describing Afghan civilians avoiding aid packages because of difficulty differentiating them from bomblets).
102. See, e.g., McDonell, supra note 22, at 71 (arguing that “[b]y their nature, cluster munitions should be deemed to cause unnecessary suffering, particularly when directed solely against troops,” but acknowledging that IHL does not take that position); Wiebe, supra note 18, at 112–13 (arguing that “[t]he combination of questionable targeting ability, large footprints, and multipurpose use for submunitions makes compliance with international humanitarian law difficult, if not impossible, when using cluster munitions in populated areas”).
104. The treaty defines an anti-personnel mine as one “designed to be explod[ed] by the presence, proximity or contact of a person and that will incapacitate, injure or kill one or more persons.” Land Mine Treaty, supra note 2, art. 2(1) (emphasis added). The inclusion of the word “designed” excludes bomblets, which are designed to explode upon falling to the earth.
same dangers as landmines. When a protocol dealing with explosive remnants of war (ERW) was added to the CCW in 2003, cluster munitions were not given any individual treatment. Recognizing the need to address cluster munitions specifically, several states and nongovernmental organizations, including those that were instrumental in creating the Land Mine Treaty, began working on a treaty. The effort, led by Norway and known as the Oslo Process, resulted in the CCM, signed by over one hundred states at the end of 2008. The Convention entered into effect in February 2010, six months after its ratification by thirty states, and the CCM became binding on state parties in August 2010.

C. Key Provisions of the CCM

Article 1 of the CCM bans the use, development, production, acquisition, stockpiling, retention, and transfer of cluster munitions. The Convention differentiates cluster munitions from mines, specifically defining this weapon as “a conventional munition that is designed to disperse or release explosive submunitions each weighing less than 20 kilograms, and includes those explosive submunitions.” Article 3 requires state parties to destroy their stockpiles of cluster munitions “as soon as possible but not later than eight years after the entry into force of [the] Convention.” The Convention does, however, allow parties to maintain the minimal amount of cluster munitions necessary to train personnel in detecting, clearing, and destroying submunition UXO. Article 4 requires state parties to clear and destroy cluster munition remnants under their control within ten years. The state must mark and fence off contaminated areas and educate civilians on...
the risks of cluster munition remnants. Article 4 also encourages states that have used cluster munitions in areas controlled by other state parties to share information that will aid the latter states in clearing their land. In addition, under Article 6 state parties are generally required to assist others and to exchange equipment and scientific information. Article 7 requires, as part of its compliance with the CCM, that each state party report to the United Nations the number of cluster munitions in its stockpile, as well as their technical characteristics. Article 5 requires state parties to provide "medical care, rehabilitation and psychological support" for the victims of cluster munitions, defined to include all persons affected by the weapons, as well as their families. These and other provisions of the CCM parallel the major provisions of the Land Mine Treaty.

The CCM has a unique provision that was instrumental in convincing some states to sign. Article 21 of the CCM governs relations with states that are not signatories to the Convention. First, state parties are required to encourage non-signatory states to ratify the Convention and to inform those states of the obligations of state parties under the Convention. Second, the Article allows, "in accordance with international law, State Parties, their military personnel or nationals, [to] engage in military cooperation and operations with States not party to [the] Convention that might engage in activities prohibited to a State Party." This provision, proposed by Germany, allowed NATO member states, including Germany, Italy, and the United Kingdom, to sign the Convention without hampering their ability to operate alongside American forces. Along with preserving the ability of state parties to operate jointly with states using cluster munitions, Article 21 serves an aspirational purpose; the hope is that state parties allied with non-

119. Id. art. 4(2)(d).
120. Id. art. 4(4).
121. Id. art. 6.
122. Id. art. 7.
123. Id. art. 5(1).
124. Id. art. 2(1).
125. See generally CCM, supra note 1; Land Mine Treaty, supra note 2.
127. CCM, supra note 1, art. 21.
128. Id. art. 21(1)--(2).
129. Id. art. 21(3).
131. Article 21 is clear in that it does not allow those state parties to use or request the use of cluster munitions in such joint operations. CCM, supra note 1, art. 21(4).
signatory states will encourage these states to renounce their use of cluster munitions. 132

IV. CLUSTER MUNITIONS AFTER THE CCM

At present, 108 states have signed the CCM, although only fifty have ratified it and become parties. 133 Roughly 50 percent of countries have not signed the CCM. Among these non-signatories are numerous states that have produced or stockpiled cluster munitions, including China, India, Israel, North Korea, South Korea, Pakistan, Russia, and the United States. 134 Although some of these states have independently taken measures limiting the use, production, or transfer of the weapons, 135 none of them are bound by the CCM provisions. This situation presents a question as to how cluster munition use by states not party to the Convention should be analyzed under international law. The rules of international law that governed cluster munition usage before the CCM still apply to these states, and must be interpreted in light of the Convention.

A. International Humanitarian Law: Additional Protocol I to the Geneva Conventions

The law of war, also termed international humanitarian law, governs the manner in which states and non-state actors wage war. 136 IHL has traditionally been rooted in two sources: international agreements, such as treaties and conventions, and customary international law. 137 Customary IHL is not entirely independent of the system of treaties—over a long period of time, the rules set out in a treaty may become so widely followed as to become law by custom, and thus become binding on states not party to the treaties. 138 This rule of customary IHL prevents non-state actors and states not signatories to certain treaties from violating the norms of warfare with impunity. 139 The Geneva Conventions of 1949 provide the basis of IHL in the modern context. 140 In the years since the original Geneva Conventions, the international community has added additional protocols. The first of these protocols, adopted in 1977

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133. Id.
134. HUMAN RIGHTS WATCH, supra note 60.
135. Id.
136. Id. supra note 11, at 134.
137. Id.
138. Id.
139. Id.
140. Id.
(Protocol I), addresses the basic principles of IHL, which apply to the use of cluster munitions. Although the United States signed Protocol I, it was never presented to the Senate for ratification. Thus, the United States is not actually a party to Protocol I, although its major provisions on IHL have become generally accepted worldwide and are understood to be customary IHL.

Protocol I defines two principles of IHL that are especially relevant to cluster munitions: distinction and proportionality. Importantly, Protocol I establishes ground rules for choosing weapons. Article 35 states the basic rule that the right "to choose methods or means of warfare is not unlimited," specifically banning weapons which "cause superfluous injury or unnecessary suffering" and those "which are intended, or may be expected, to cause widespread, long-term and severe damage to the natural environment." Without even reading any further, one can see where cluster munitions could be problematic under Protocol I; as explained supra, they often harm civilians and leave areas uninhabitable after the end of combat. Additional articles restrict the use of cluster munitions to an even greater extent.

The principle of distinction prohibits attacks on civilians. Article 48 requires that combatants "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." Protocol I also includes a provision stating that the presence of non-civilians within the civilian population does not change the status of the population to a non-civilian one. Article 51 prohibits indiscriminate attacks, defined as, inter alia, "[t]hose which employ a method or means of combat which cannot be directed at a specific military objective... and... are of a nature to strike military objectives and civilians or civilian objects without distinction." Critics of cluster munitions use these articles to establish that cluster munitions, in

144. McDonnell, supra note 22, at 103-08.
145. See discussion infra this section.
146. Protocol I, supra at note 141, art. 35.
147. Id. arts. 35, 55.
148. See discussion supra Part III.A.
149. Protocol I, supra at note 141, art. 48.
150. Id. art. 50(3). Also of interest is Article 58, which requires parties to separate their military operations from civilian populations as much as possible.
151. Id. art. 61(4)(a).
their design and execution, violate the principle of distinction, as even a cluster bomb which is directly on target will scatter submunitions over a broad footprint, potentially harming anyone in the vicinity.\textsuperscript{152} International tribunals have not applied the distinction principle this aggressively.\textsuperscript{153}

Article 51 also contains language setting forth the related principle of proportionality, which limits the range of acceptable civilian casualties resulting from attacks on military targets. The principle of proportionality bans indiscriminate attacks, including those “which may be expected to cause incidental loss of civilian life, injury to civilians, [or] damage to civilian objects . . . which would be excessive in relation to the concrete and direct military advantage anticipated.”\textsuperscript{154} Article 57 requires choosing methods and means of attack that will minimize civilian casualties, and repeats Article 51’s language on disproportionate attacks.\textsuperscript{155} Under Protocol I, IHL recognizes that military objectives will sometimes be located in such close proximity to civilians as to make collateral damage unavoidable, but it establishes rules to minimize civilian casualties as much as possible. As with the rule of distinction, cluster munition opponents have argued that the weapons inherently violate the rule of proportionality.\textsuperscript{156}

\textbf{B. Prosecutions of IHL Violations Stemming from Cluster Munition Use: The Former Yugoslavia, Eritrea, and Beyond}

Although cluster munitions are not explicitly banned under IHL, international tribunals have successfully prosecuted cluster munition users under traditional IHL by demonstrating that the manner in which they used the weapons violated principles such as distinction and proportionality.\textsuperscript{157} The underlying facts of these prosecutions demonstrate the degree to which courts were willing to punish the use of cluster munitions under basic IHL principles. One of the

\begin{itemize}
\item \textsuperscript{152} Cf. Wiebe, supra note 18, at 109, 112 (describing the large footprints and likely collateral damage associated with cluster munition strikes).
\item \textsuperscript{153} Cf. Partial Award—Central Front—Ethiopia’s Claim 2 (Eri. v. Eth.), 43 I.L.M. 1275, 1296, ¶ 119 (Eritrea–Ethiopia Claims Comm’n 2004) (holding that use of cluster bombs in close proximity to civilian village violated IHL).
\item \textsuperscript{154} Protocol I, supra note 141, art. 51(5)(b). Paragraph 5(a) also bans treating separate military targets as one and attacking them together when they are among civilians.
\item \textsuperscript{155} Id. art. 57(2)(a).
\item \textsuperscript{156} Cf. Wiebe, supra note 18, at 103 (noting that U.S. commanders use suspect calculations of military advantage and civilian casualties in weighing the costs and benefits of specific attacks).
\item \textsuperscript{157} See generally Wiebe, supra note 70 (analyzing convictions for the use of cluster munitions in the former Yugoslavia and Ethiopia).
\end{itemize}
attacks that led to prosecution occurred in the former Yugoslavia in 1995,\textsuperscript{158} the other in Ethiopia in 1998.\textsuperscript{159} In both situations, the accused were found guilty because of the specific manner in which they deployed the weapons.

In 1995, Croatian forces invaded the Republic of Serbian Krajina (RSK), a short-lived rebel state.\textsuperscript{160} In response to this invasion, RSK fired rockets carrying cluster munitions on Zagreb, the capital of Croatia.\textsuperscript{161} Milan Martić, President of RSK, was convicted of war crimes for these attacks.\textsuperscript{162} The defense argued that the attacks were aimed at Croatian governmental buildings, such as the presidential palace and Ministry of Defense.\textsuperscript{163} However, the rockets came down in areas filled with civilians, killing and wounding about two hundred.\textsuperscript{164} The International Criminal Tribunal for the former Yugoslavia heard testimony on the nature of the rockets used in the attack, including their range, accuracy, payload of submunitions, and footprint.\textsuperscript{165} Based on this evidence, the court determined that the use of the rockets on urban targets necessarily constituted an attack on the civilian population, and thus found Martić guilty.\textsuperscript{166} Although the court did not go so far as to find the use of cluster munitions in all situations to be a war crime, it did send the message that directing them against targets in civilian population centers is illegal under the principles of IHL.

In the 1998 war between Eritrea and Ethiopia, both employed cluster munitions.\textsuperscript{167} After the hostilities ended, the Eritrea–Ethiopia Claims Commission charged Eritrea with war crimes for the cluster bombing of civilian targets in the town of Mekele.\textsuperscript{168} The disputed attack began when four Eritrean aircraft bombed Mekele.\textsuperscript{169} Although the military target of the attacks was the airport, cluster bombs came down on residential neighborhoods and a school, resulting in over two hundred civilian casualties.\textsuperscript{170} The court found Eritrea liable for the fatalities and damage to civilian property, but

\begin{itemize}
\item \textsuperscript{158} See generally Prosecutor v. Martić, Case No. IT–95–11–T, Judgment (Int’l Crim. Trib. for the Former Yugoslavia June 12, 2007).
\item \textsuperscript{159} See generally Partial Award—Central Front—Ethiopia’s Claim 2 (Eri. v. Eth.), 43 I.L.M. 1275 (Eritrea–Ethiopia Claims Comm’n 2004).
\item \textsuperscript{160} Martić, Case No. IT–95–11–T, ¶ 302.
\item \textsuperscript{161} Id. ¶¶ 305, 309.
\item \textsuperscript{162} Id. ¶ 480.
\item \textsuperscript{163} Id. ¶ 461.
\item \textsuperscript{164} Id. ¶¶ 308, 313.
\item \textsuperscript{165} Id. ¶ 462.
\item \textsuperscript{166} Id. ¶ 469.
\item \textsuperscript{167} HUMAN RIGHTS WATCH, supra note 53.
\item \textsuperscript{168} Partial Award—Central Front—Ethiopia’s Claim 2 (Eri. v. Eth.), 43 I.L.M. 1275, 1291, ¶ 101 (Eritrea–Ethiopia Claims Comm’n 2004).
\item \textsuperscript{169} Id. ¶ 103.
\item \textsuperscript{170} Id. ¶¶ 101, 103.
\end{itemize}
did not base its decision on Eritrea’s choice of ordnance. Instead, the court ruled that Eritrea did not take the necessary precautions under Article 57 of Protocol I in attacking the airport. Thus, this decision did even less than the Martič conviction to move IHL in the direction of banning cluster munitions outright.

In addition to their convictions stemming from the use of cluster munitions, Eritrea and RSK have something else in common: both were small countries with little or no political clout on the global level. In these cases, the trials were before courts convened for the specific purpose of investigating war crimes stemming from the particular conflicts. Larger and more powerful states have managed to avoid prosecution, let alone conviction, for war crimes. The United States is not a party to the Rome Statute, and thus not subject to the jurisdiction of the International Criminal Court (ICC). Even when there has been a specific judicial mechanism created to investigate actions of major powers, they have avoided any potential consequences. For example, after NATO’s use of cluster munitions in Kosovo in 1999, the prosecutor appointed to investigate potential war crimes during that conflict declined to pursue action against the NATO states and aircrews. No war crimes prosecutions are forthcoming regarding Israel’s launching of thousands of rockets carrying cluster bombs into southern Lebanon at the end of its war with Hezbollah in 2006. In both of these cases, far more cluster munitions were deployed than in either of the cases where prosecution actually occurred, and the Israeli actions in particular were arguably illegal under principles of customary IHL. At least one commentator has written on the difficulty of pursuing war crimes prosecutions against major powers and in “important” wars. As a result, any measure to limit the use of cluster munitions must be voluntary to a certain degree—states must either agree to a ban, or they must agree to be subject to war crimes prosecutions, whether generally, such as submitting to the jurisdiction of the ICC, or in the aftermath of a specific conflict. Neither solution seems likely.

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171.  Id. ¶ 113.
172.  Id. ¶¶ 110, 112.
173.  Glazier, supra note 143, at 1342.
175.  Borneman, supra note 93, at 276.
176.  Ching, supra note 11, at 159.
177.  See Borneman, supra note 93, at 280–81 (describing the political roadblocks to prosecuting world powers).
178.  See infra Part IV.D.
C. The CCW: An Alternate Treaty Approach to Cluster Munitions

Although their general inaccuracy and wide footprints make cluster munitions dangerous to civilians when first launched, their high dud rate is perhaps their most alarming flaw. Prior to the creation of the CCM, the CCW adopted a protocol dealing with the issue of explosive remnants of war. The goal of the CCW was to minimize the dangers posed by ERW. The CCW specifically excludes mines from its definition of explosive ordnance and does not mention cluster munitions. The general principles of the CCW, however, can be applied to unexploded bomblets. Moreover, some of the states not party to the CCM are parties to the CCW. For those states, the CCW provides the only guidelines for dealing with unexploded bomblets. The United States is one such state.

Like analogous provisions in the Land Mine Treaty and CCM, Article 3 of the CCW requires state parties to clear, remove, and destroy ERW in areas under their control and to assist other states in their efforts to do the same. The CCW requires state parties to keep close track of their use of explosive ordnance in order to facilitate ERW cleanup after conflicts end and to assist and cooperate with the efforts of other nations. Similar to the Land Mine Treaty and CCM, parties to the CCW are required to protect civilians from dangerous areas through fencing, signs, and other precautions. Although the CCW has many provisions mirroring those in the CCM, it also requires state parties to take steps to prevent the creation of ERW. The Technical Annex to the CCW provides guidance on how to minimize ERW. Among these measures are quality control in production, testing, careful transport and storage, and proper training for those who will use the ordnance. As discussed supra, storage and transport are likely

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179. See discussion supra Part III.A.
180. CCW, supra note 76.
181. Id. pmbl., para. 2. ERW includes both UXO and abandoned explosive ordinance (AXO). Id. art. 2(4). Cluster munition duds fall into the category of UXO, but since the CCW takes the broader approach, ERW will be used in place of UXO in explaining its provisions.
182. Id. art. 2(1).
183. HUMAN RIGHTS WATCH, supra note 60. Other notable states include China, India, Israel, South Korea, Pakistan, and Russia. Id.
184. CCW, supra note 76, art. 3(1).
185. Id. art. 4.
186. Id. art. 8.
187. Id. art. 5.
188. Id. art. 9.
189. Id. art. 9, annex 3.
190. Id.
191. See discussion supra Part III.A.
the reasons cluster munitions have a higher failure rate in the field than they do in manufacturers' tests. Although the Annex does not specifically mention weapon design or function, Article 9 clearly states that the Annex is not an exhaustive list of ways to minimize ERW. Thus, design improvements that would lower dud rates significantly would further the goals of the treaty, as fewer duds mean fewer ERW.

Although the CCW does not address cluster munitions specifically, its provisions are applicable to one of the two main issues that cluster munitions present. As it deals only with explosive remnants of war, the CCW does not solve the problem of wide footprints or inaccuracy leading to civilian casualties immediately upon the use of cluster munitions. In terms of negative aftereffects, however, the CCW does much of the same work the CCM does, requiring its state parties to make efforts to reduce their creation of ERW, protect civilians from existing ERW, and clear ERW from former battlefields to make them inhabitable once again. Although it does not address the short-term effects of cluster munitions, the CCW does address many of the long-term effects. Thus, it will continue to be important to the regulation of cluster bomb use as long as some user states abstain from the CCM.

D. The Status of IHL and Enforcement After the CCM

Although states not party to a treaty cannot violate its terms, over time, the existence of a treaty can expand customary IHL to include the requirements of the treaty. As discussed supra, the provisions of Protocol I have become customarily accepted over the past three decades. Critics of cluster munitions have argued for their illegality based on the principles of proportionality and distinction, which are rooted in Protocol I. Although the United States never ratified Protocol I, American proponents of cluster munitions have not argued that the principles of Protocol I do not apply to U.S. forces, but rather that cluster munitions do not violate those principles. This stance suggests that they do not dispute that the Protocol I principles have become customary IHL. The CCM bans specific ordnance, while Protocol I requires a case-by-case analysis of whether an attack violates the principles of distinction and proportionality. Therefore, if its provisions become sufficiently

192. CCW, supra note 76, art. 9.
193. See Ching, supra note 11, at 134 (noting that a treaty that contains “core provisions of customary international law” can apply to states that have not ratified it).
194. See supra Part IV.A.
195. McDonnell, supra note 22, at 103-08.
196. Id.
197. E.g., Lacey, supra note 9, at 29-30.
accepted to constitute customary IHL, user states will have no basis to argue that cluster munitions remain acceptable under IHL. Although the long-term impact of the CCM on IHL remains unknown, the large number of signatories, including several NATO states, suggests that the Convention's provisions are likely to be accepted as customary IHL in the future.

Even assuming that the use of cluster munitions becomes recognized as a violation of customary IHL, several major obstacles block an effective enforcement scheme. Prosecutions for violations of international criminal law have generally taken place under the jurisdiction of specialized courts convened for the purpose of addressing IHL violations in specific conflicts.198 Even when such courts have investigated the actions of major powers, these investigations do not usually result in prosecutions.199 Although specialized courts have been the norm for IHL prosecutions, the recent establishment of the ICC has created another avenue for prosecution.200 Under the Rome Statute, the ICC has jurisdiction over violations of various international crimes201 and over cases dealing with cluster munitions, should customary IHL treat such ordnance as illegal.202

While the subject matter jurisdiction of the ICC is plausibly broad enough to encompass prosecution for the use of cluster munitions, its personal jurisdiction over user states is significantly more limited. Under the terms of the Rome Statute, the ICC's jurisdiction is restricted to states party to the statute, both for conduct perpetrated by their nationals and for conduct occurring within their territory.203 One hundred thirty-nine states signed the statute, and 110 states ratified it.204 Although over half the world's states comprise the parties to the statute, many notable states remain absent, including China, India, Israel, North Korea, Pakistan, Russia, and the United States.205 The status of these states is

198. For example, the International Criminal Tribunal for the former Yugoslavia.

199. Wiebe, supra note 18, at 134 (discussing prosecutor's decision not to pursue charges against NATO forces after investigating their use of cluster munitions in the former Yugoslavia).


201. Id. art. 5(1).

202. Id. art. 8(2)(b)(xx).

203. Id. art. 12. States not party to the Rome Statute may voluntarily submit to the ICC's jurisdiction in individual cases. Id.


205. Id. Israel, Russia, and the United States have signed the Rome Statute, but have not ratified it to become parties. Id.
significant in addressing the cluster munition problem, as they are among the states that use and produce cluster munitions and are non-parties to the CCM. The same key states that have chosen not to agree on an outright ban on the use of cluster munitions have also resisted jurisdiction for specific instances of misuse. This weakens the ability of international courts to adjudicate specific investigations and charges of powerful states that continue to use cluster munitions.

V. THE AMERICAN APPROACH TO CLUSTER MUNITIONS AND THE CCM

A. U.S. Policy on the Legality of Cluster Munitions

As recently as June 2008 (with the CCM treaty process well underway), the U.S. Department of Defense articulated its position that cluster munitions are "legitimate weapons with clear military utility." The American stance holds that cluster munitions provide particular advantages in attacking specific types of targets, and can reduce collateral damage in certain cases. The Department of Defense Policy Memo outlining the American position does not focus on the specific principles of IHL potentially implicated by cluster munition use. Rather, the memo expounds the utility of the ordnance in attacking certain targets.

American military lawyers have addressed the specifics of cluster munition use and IHL, arguing that cluster munitions play a vital role in the nation's arsenal and that the Convention presents an obstacle to the successful prosecution of the war on terror. They focus on rebutting the proportionality and distinction arguments of critics. First, when discussing the proportionality of an attack, any potential harm to civilians is weighed against military gain. The proportionality principle takes into account that some harm to civilians is inevitable, which is why the principle is not an absolute ban on any action that results in harm to civilians. Specific use of the weapons must be tailored to the particular military needs, and some uses may violate proportionality. All weapons in the modern arsenal present the danger of collateral damage to civilians, and

206. See supra Part V.
207. See supra text accompanying note 177.
209. Id.
210. Id.
211. Lacey, supra note 9, at 33.
212. Herthel, supra note 47, at 258.
treat cluster munitions as violating proportionality per se, rather than requiring a balancing of costs and benefits, is at odds with the theory of proportionality analysis. Therefore, by taking certain precautions to minimize the dangers unique to cluster munitions, military commanders can make effective use of the ordnance while complying with IHL. Conversely, failing to take such precautions would lead to IHL violations if an attack caused excessive collateral damage.

Second, proponents of cluster munitions dispute the claim that the weapons violate the IHL principle of distinction. They argue that cluster munitions may be aimed at certain targets, such as tank formations and aircraft on runways, without risking harm to civilians. While recognizing that the weapons do create wide footprints, they argue that this characteristic of the ordnance does not make cluster munitions indiscriminate as a matter of law. Proponents argue instead that the principle of distinction is focused on weapons like long-range unguided missiles and the use of poison in water supplies.

The crux of the argument that cluster munitions are indiscriminate, however, is not their wide footprints, which are accounted for in a proportionality analysis. Rather, the high dud rates fuel much of the criticism. Supporters of cluster munitions have less convincing counterarguments on this point. The general approach is to treat bomblet duds as equivalent to other UXO. However, even those who argue for the legality of cluster munitions concede that the UXO left by submunition duds is more dangerous than other types.

The advent of the CCM creates problems for the arguments rationalizing cluster munition use because those arguments are

214. Lacey, supra note 9, at 29 (stating that if weapons were required never to cause collateral damage “there would be no need for commanders and Soldiers to engage in the delicate and difficult balancing test that is the proportionality principle”).

215. See Ching, supra note 11, at 154 (concluding that the United States’ use of cluster munitions in Afghanistan and Iraq was legal under IHL because the United States took proper precautions, including “embedding military lawyers with troops using cluster bombs, warning Afghan civilians not to mistake dud bomblets for humanitarian food rations, and replacing its older model cluster bomblets with newer versions that contained self-destructing fuses to prevent dud munitions”).


218. See id. at 264–65 (stating that the delegates to the drafting of Protocol I were concerned with long range strikes by unguided missiles, and noting that the commentary to Protocol I identified poisoning wells as an indiscriminate method).

219. Id. at 265–66; see also Lacey, supra note 9, at 30 (discussing efforts to resolve cluster munition dud issues under the CCW).

220. Lacey, supra note 9, at 30 (“The problem is further exacerbated by the fact that many of the submunitions are colored in orange or yellow hues . . . mak[ing] such bomblets the proverbial ‘attractive nuisance’ to small children.”).
justified, at least in part, on the lack of international agreement to ban the weapons. One commentator, writing several years before the drafting of the Convention, considered the lack of an international consensus on the illegality of cluster munitions in analyzing the proportionality issue.\textsuperscript{221} Because it is nearly impossible to measure suffering objectively, a "consensus among nations," such as exists regarding poison gas, is the only way for a weapon to violate the proportionality principle per se.\textsuperscript{222} This argument has two major weaknesses. First, it reduces the proportionality principle to a mere tautology—if weaponry in the abstract cannot violate proportionality principles (absent a consensus), and suffering cannot be measured to be weighed against the utility of a particular action, no evaluation standard exists to measure the proportionality of a weapon, or even of a specific instance of its use. Second, the existence of the CCM changes the analysis by moving closer to a consensus among nations. Although the Convention does not represent an absolute consensus, as many nations have not signed or ratified it, it is a clear sign that the international community is not ambivalent about cluster munitions.\textsuperscript{223} Moreover, the existence of the CCM further undermines the argument that cluster munitions are not indiscriminate because proponents can no longer argue based on the decisions of past international conferences not to regulate them.\textsuperscript{224}

B. The American "Solution" to the Cluster Munition Problem: Building a Better Bomb

Although the U.S. Department of Defense and military commentators maintain that the cluster munitions currently in the American arsenal are legal, the Pentagon has adopted a policy intended to reduce the harm the weapons cause to civilians.\textsuperscript{225} The policy calls for the cluster munitions in the American stockpile to have a dud rate of no higher than 1 percent by 2018.\textsuperscript{226} The use of cluster munitions with dud rates over 1 percent requires specific authorization from the Combatant Commander.\textsuperscript{227} Any transfer of cluster munitions with higher dud rates to other nations is conditioned on an agreement that the state receiving the cluster munitions to have a dud rate of no higher than 1 percent by 2018. Additionally, the use of cluster munitions with dud rates over 1 percent requires specific authorization from the Combatant Commander. Any transfer of cluster munitions with higher dud rates to other nations is conditioned on an agreement that the state receiving the cluster munitions...

\begin{itemize}
\item \textsuperscript{221} Herthel, \textit{supra} note 47, at 258.
\item \textsuperscript{222} \textit{Id.}
\item \textsuperscript{223} \textit{Cf. id.} at 265 (noting the trend toward an understanding of landmines as inherently indiscriminate).
\item \textsuperscript{224} \textit{Contra id.} (noting that regarding "cluster munitions, delegates to the Lucerne and Lugano Conferences addressed and rejected the very issue of a treaty to regulate cluster munitions").
\item \textsuperscript{225} Defense Policy Memo, \textit{supra} note 14, at 2.
\item \textsuperscript{226} \textit{Id.}
\item \textsuperscript{227} \textit{Id.}
\end{itemize}
munitions not use such ordnance after 2018. These policy changes would require the disposal of cluster munitions in the current stockpile, and an improvement on existing technology, as even conservative estimates put current submunition dud rates at 5 percent.

At least one commentator has argued that improvements in cluster munition technology could bring U.S. cluster bombs within the exceptions to the CCM and allow the United States to ratify the Convention while still utilizing the weapons. However, such an argument misreads the Convention's language on exceptions. The exception in question requires the munitions to meet five different criteria. Technological improvements could meet three of these criteria, but the Convention's other two requirements limit weapons to ten or fewer submunitions, each weighing four or more kilograms. Such a weapon would be fundamentally different from a traditional cluster bomb and may not serve the purposes for which the American military insists cluster munitions are essential.

The new defense policy on cluster munitions is a partial solution to the problems associated with the ordnance, and opponents of a ban point to the policy as the proper way to address the dangers associated with cluster munitions. The policy does not, however, cure all ills. There will still be some UXO from cluster munition attacks with the same dangers, even if fewer total UXO exist due to lower dud rates. However, combined with close adherence to the CCW, to which the United States is a party, this policy could alleviate some of the issues stemming from submunition UXO. Nonetheless, the policy only addresses the issue of duds, which is only one of the problems with cluster munitions. Although precision guidance systems are becoming more commonplace, many cluster munitions are not equipped with them, and the new defense policy does not

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228. Id.
229. Id.
230. Wiebe, supra note 18, at 118.
232. CCM, supra note 1, art. 2(2)(c).
233. Id.
234. Cf. Lacey, supra note 9, at 30 (discussing the new policy in response to criticism of cluster munitions for violating distinction principles).
235. See supra Part III.A.
236. See Herthel, supra note 47, at 263 (stating U.S. policy to employ precision guided ordnance even when not mandated by IHL).
237. See Lacey, supra note 9, at 28 (stating that 90 percent of the cluster munitions in the American arsenal are part of the Army’s artillery stockpile).
include a requirement for improved precision. Therefore, the policy does nothing to address the problems associated with cluster munitions during deployment, and trying to improve, rather than remove, cluster munitions is seen as an incomplete solution to those problems.

VI. SOLUTIONS GOING FORWARD

As long as the world's major powers have cluster munitions in their arsenals, the serious harm they cause to civilian populations is likely to continue. After the First World War, the international community was quick to ban poison gas, which both sides had used. The specter of mutually assured destruction has prevented the use of nuclear weapons since World War II. Unlike these weapons, cluster munitions are not only stockpiled in droves, but they are actually used on today's battlefields with some frequency. Their devastating power has inspired arguments for their illegality and resulted in a treaty to ban them. However, their use is likely to continue, because the major user states are not parties to the treaty.

A. The Inadequacy of Existing Treaties

Currently, the legality of the use of cluster munitions is affected by several treaties. The CCM bans them outright. The principles of IHL found in Protocol I prohibit their use in certain circumstances, and arguably constitute an outright ban independent of the CCM. The Rome Statute governs how and against whom prosecutions for IHL violations can occur. The CCW, without giving cluster munitions special treatment, governs how states should handle dud munitions generally. All of these treaties, however, suffer from the same inherent limitation: their limited reach. Unlike domestic laws, which apply to all people within a state, treaty law only applies to those states that agree to it. The exceptions to this principle are rare, and usually involve a victorious state prosecuting the leaders of its defeated enemy, or UN involvement in the resolution of disputes between small nations.

238. See Defense Policy Memo, supra note 14, at 2 (outlining the policy).
239. Wiebe, supra note 70, at 960–63.
240. See, e.g., Ching, supra note 11, at 139–40.
241. CCM, supra note 1, art. 1.
242. See supra Part IV.B.
243. See supra note 102.
244. See supra Part IV.D.
245. See supra Part IV.C.
246. For example, the Nuremburg trials of Nazi leaders.
247. For example, the special tribunals for Rwanda and the former Yugoslavia.
Although the principles of customary IHL apply to non-state actors, no effective prosecution can exist if those actors remain at large.

In the case of cluster munitions, this reality is particularly problematic. The major users of cluster munitions are parties to neither the CCM nor the Rome Statute. Thus it is extremely difficult to hold them accountable for cluster munitions violations of IHL because the ICC lacks jurisdiction over non-parties and prosecution in ad hoc tribunals seems remote. The situation is further exacerbated by the political stances of the states involved. Many of the military powers currently stockpiling cluster munitions are world superpowers or regional rivals. States involved in contentious border disputes or global power politics may be reluctant to take voluntary steps that they perceive as hamstringing their military capability.

Article 21 of the CCM creates another unusual dynamic in the problem of the enforceability of the cluster munitions ban. Allowing state parties to conduct joint operations with non-parties could potentially have two effects. Although it could encourage the user state to forgo or drastically reduce its use of cluster munitions, the opposite result seems more likely. The NATO countries will continue to operate alongside American forces, despite the Convention's ban on most activities collateral to the use of cluster munitions. Convincing the major Western powers to join the Convention without such a provision would have given the CCM much more force, but was unrealistic given the importance of the NATO alliance. This provision weakens the ability of the CCM to increase the stigma

248. Ching, supra note 11, at 134.
249. See supra Part IV.D.
250. See supra Part IV.D.
251. See Borneman, supra note 93, at 280 (noting the difficulty of prosecuting “major geopolitical perpetrators on the world stage”).
252. For example, the United States, Russia, and China.
253. For example, India and Pakistan, North and South Korea.
254. See, e.g., Anzalone, supra note 231, at 209.

There is abundant proof that the United States' military strategy depends on the ability to use cluster munitions during military operations. Considering the position of the United States in the world... weakening the United States' military capability is tantamount to weakening the military might of the Western world.

Id.

255. See CCM, supra note 1, art. 21 (allowing state parties to conduct joint military operations with non-state parties).
256. Id. art. 1(1)(b).
257. See Lacey, supra note 9, at 32-33 (explaining that during the Oslo negotiations, interoperability with coalition forces was a "major concern" for the United States and other proponents of the treaty).
associated with cluster munitions and pressure states to join the Convention or to stop using the weapons of their own accord.

B. The Inadequacy of the American Approach and How to Improve It

If the treaty approach to solving cluster munition problems is deficient in its lack of reach, the internal American approach is equally deficient in its lack of scope. The United States has not joined the CCM or the Rome Statute, so it is neither forbidden from using cluster munitions nor subject to any war crimes prosecutions that could potentially arise from their misuse. The United States is, however, a party to the CCW, and American cluster munition apologists argue that submunition duds should be treated like other UXO. Likewise, the current Department of Defense policy on cluster munitions is focused on reducing dud rates. Thus the American policy only addresses half of the problem, leaving the dangers associated with the wide footprints of the weapons unaddressed. Proponents of cluster munitions argue that the proportionality principle allows for the use of cluster munitions when the risks to civilians have been properly weighed against the military utility in a particular attack. However, they have generally not discussed exactly what process to use and criteria to weigh to determine when the use is justified. American policymakers have made some effort to address the aftereffects of cluster munition use, but have done little to reduce the problems occurring contemporaneously with the attacks themselves. Assuming the United States is not going to join the Rome Statute or the CCM, its efforts must ensure the safety of those who live near warzones and establish more clearly the line between legal and illegal use of the ordnance.

The first step the United States should take is to ensure that it is a model citizen in its compliance with the CCW. Even if the United States insists on treating submunition duds as legally indistinct from other UXO, it must recognize that these duds are pragmatically more troublesome than other UXO. The United States did not join the Land Mine Treaty, but has made significant efforts assisting in the removal of mines worldwide. Cluster munition UXO, unlike

258. See supra Part IV.D.
259. HUMAN RIGHTS WATCH, supra note 60.
263. But cf. Ching, supra note 11, at 154 (listing embedded lawyers, warnings to civilians about duds, and use of self-destructive bomblets as precautions that likely rendered cluster munition use in Afghanistan legal).
265. Glazier, supra note 143, at 1340.
landmines, is part of the CCW’s general scheme, and thus the American obligation to take the forefront in its removal is even greater. The large role the United States has had in the development, production, and use of cluster munitions, and its continuing insistence on using the weapons, creates a moral obligation to put itself at the vanguard of those working to reduce the post-conflict maladies the weapons cause. Not only would such an approach lessen the potential legal and ethical problems resulting from past use of cluster munitions, but it would signal to other nations that continue to use the weapons that doing so brings with it a responsibility to minimize the risks to civilians, even years after combat.

The Pentagon should also reevaluate its policy on cluster munition use. Currently, the policy only addresses the aftereffects by requiring a low number of duds seven years from now. This policy seems insufficient, given the number of years before the 1 percent requirement becomes effective. Improving the dud rates without introducing strict policies regulating the use of the more reliable ordnance is inadequate. Even the most reliable cluster munitions can be used irresponsibly. In addition to its mandate on dud rates, the Pentagon should adopt a stricter policy on the use of cluster munitions, designed to reduce their negative effects at the time of impact, not simply in the period after their deployment. Proponents of the legality of cluster munitions argue that balancing military objectives against civilian losses and determining that the former may outweigh the latter justifies cluster munition use. The United States should adopt stricter requirements to ensure that such balancing actually occurs, and that the decision to use cluster munitions is undeniably justified in the principles of IHL. To the extent that it does not jeopardize the efficacy of operations or the safety of U.S. military personnel, the policy should be public, as a further example of proper use.

The United State should adopt bright-line rules, such as a ban on the use of cluster munitions in urban areas regardless of the presence of any military objectives. Although a delicate and difficult balancing of interests is involved in battlefield decisions,

268. See Eitan Barak, None to Be Trusted: Israel's Use of Cluster Munitions in the Second Lebanon War and the Case for the Convention on Cluster Munitions, 25 AM. U. INT'L L. REV. 423, 451 (2010) (suggesting "that once armies are equipped with presumably dud-free CMs, restraints over CM use . . . are considerably weakened").
270. For a similar argument, see Anzalone, supra note 231, at 210.
bright-line rules would prove useful in correcting some of the inherent biases that factor into such decisions. Commanders are expected to err on the side of the safety of their troops over that of civilians who may be located near enemy positions. Without a set of bright-line rules, commanders may be inclined to justify any use of cluster munitions by arguing that it was the only way to protect their troops, even without concrete proof one way or the other. Adopting bright-line rules would create a rebuttable presumption that the ordinance is not to be used, and require proof that it is necessary before it may be implemented.

Additionally, the United States should limit the use of cluster munitions to targets for which they clearly offer advantages over other ordnance, such as troop and vehicle formations in the open.\textsuperscript{271} Even in such cases, the military should use cluster munitions as a last resort. The advent of “smart bombs” guided to their targets by sophisticated systems obviates the need for cluster munitions in some of the circumstances in which they were first employed.\textsuperscript{272} The Pentagon should also adopt a policy that mandates that cluster munitions be equipped with these precision guidance systems, much as it has put a limitation on the percentage of submunitions that may be duds.\textsuperscript{273} Although cluster munitions were developed in part to compensate for the inherent inaccuracy of unguided projectiles,\textsuperscript{274} some are currently equipped with precision guidance systems.\textsuperscript{275} Requiring the use of guidance systems is especially important, because the large footprints of submunition cluster patterns exacerbate the problem of missing the target, potentially doubling the distance by which an errant bomb misses.\textsuperscript{276} The use of these systems would eliminate this problem without reducing the military’s capability to engage targets in the most efficient and effective manner possible. Adopting these increased restrictions on cluster munition use would bolster the credibility of American claims that cluster munitions are lawful when used properly, giving more force to the argument that precautions are actually taken, and focus increased scrutiny on more reckless use of the weapons.

If the United States adopts stricter policies on the use of cluster munitions, this move would have a twofold effect on the incidence of the problems they cause. The first effect would be a reduction in civilian casualties stemming from American cluster bomb attacks.

\textsuperscript{271} Herthel, supra note 47, at 264.
\textsuperscript{272} See supra text accompanying notes 47–49.
\textsuperscript{273} Defense Policy Memo, supra note 14, at 2.
\textsuperscript{274} See supra Part II.A.
\textsuperscript{275} Wiebe, supra note 18, at 127–28. A precision guidance requirement could probably be implemented earlier than the low dud requirement, because it would not require development of new technology.
\textsuperscript{276} See supra text accompanying note 46.
This consequence is significant, for the United States is among the major users of cluster munitions worldwide, and is currently involved in multiple wars. The second effect stems in part from the first. Because the United States is such a major user of cluster munitions, its use of the weapons is likely to impact the global impression of their legality. By taking extreme precautions, the United States can show other users of cluster munitions that, although it considers the weapons to be legal, it is loath to use them unless such use indisputably complies with the norms of IHL. By sending this message, the United States can influence the behavior of other user states, making less calculated and discriminate uses of cluster munitions appear even more blatantly illegal. The policy should not stop at strict regulation of cluster munition use—the United States should adopt a policy prohibiting transfer of cluster munitions to states that have shown a willingness to use the ordnance in a manner that clearly violates IHL principles. Assuming that the United States is unwilling to join the CCM, it must take affirmative steps to ensure that its own use of the weapons, as well as theirs, comports with the norms of IHL.

VII. CONCLUSION

The propensity of cluster munitions to create significant dangers for civilians remains a significant problem with the ordnance. These dangers exist not only at the moment the weapons are discharged, but also years after combat has ceased due to high dud rates. Although some have questioned the legality of cluster munitions in all cases, courts that have addressed the problem chose to focus instead on the specific facts surrounding their use, avoiding the issue of whether the weapons are inherently illegal. Dissatisfied with this approach, a large segment of the international community signed the CCM, which bans the weapons. However, the major user states of cluster munitions have not joined the Convention, leaving the legality of the weapons under IHL principles an open question.

Opponents of cluster munitions point to their inaccuracy and high dud rates as reasons for their illegality under IHL. Meanwhile, defenders of cluster munitions argue that these attributes are not unique, but rather common to all weapons. Proponents of their use

278. See supra Part III.A.
279. See supra Part IV.B.
280. See generally CCM, supra note 1.
281. HUMAN RIGHTS WATCH, supra note 60.
282. Compare Wiebe, supra note 18, at 112 ("The combination of questionable targeting ability, large footprints, and multipurpose use for submunitions makes
argue that cluster munitions can satisfy the IHL proportionality test if the proper precautions are taken in their use. These precautions, however, are not defined clearly enough to ensure that future use of the weapons is legal. If the United States insists on maintaining and using cluster munitions, it must establish bright-line rules restricting their use. The military should consider compliance with these rules mandatory before any balancing of interests is even considered. The United States has taken some steps in alleviating the problems associated with dud submunitions, but must go a step further and become a leader in the cleanup effort, while taking steps to ensure American allies are not creating more danger for civilians. Moreover, strict rules of engagement must be promulgated to limit the collateral damage at the time of deployment. Any argument that cluster munitions remain legal and serve a legitimate military purpose is only as credible as the process by which the military evaluates the need to use them, respecting the consequences of possible misuse.

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compliance with international humanitarian law difficult, if not impossible, when using cluster munitions in populated areas.

*Lacey, supra note 9, at 29–30 (noting, for example, that “[n]o weapon is required to be delivered with pinpoint accuracy”).

283. Lacey, supra note 9, at 29.

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