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APRIL 2008

# Cluster Munitions and the Proportionality Test

## Memorandum to Delegates of the Convention on Conventional Weapons

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### Introduction

The calls for a new international legal instrument to ban or restrict cluster munitions derive in large part from the weapons’ significant and foreseeably grave aftereffects on civilians,<sup>1</sup> which have been thoroughly documented by many, including Human Rights Watch.<sup>2</sup> States parties to the Convention on Conventional Weapons (CCW) took a first step toward reducing the impact of unexploded submunitions with CCW Protocol V on Explosive Remnants of War (ERW), but this instrument only provides post-conflict remedial measures. Because the severe and long-lasting aftereffects of cluster munitions on civilians are foreseeable, they can and must be prevented.

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<sup>1</sup> Cluster munitions routinely leave behind large numbers of submunitions that do not explode on impact as designed and remain as de facto landmines after a strike.

<sup>2</sup> Human Rights Watch, *Flooding South Lebanon: Israel’s Use of Cluster Munitions in Lebanon in July and August 2006*, vol. 20, no. 2(E), February 2008, <http://www.hrw.org/reports/2008/lebanon0208/>; Human Rights Watch, *Off Target: The Conduct of the War and Civilian Casualties in Iraq* (New York: Human Rights Watch, 2003), <http://www.hrw.org/reports/2003/usa1203>; Human Rights Watch, *Fatally Flawed: Cluster Bombs and Their Use by the United States in Afghanistan*, vol. 14, no. 79(G), December 2002, <http://hrw.org/reports/2002/us-afghanistan/>.

This paper contends that to reduce civilian harm through preventive measures, the aftereffects of cluster munitions must be taken into account when applying the proportionality test. The proportionality test, a cornerstone of international humanitarian law (IHL), prohibits attacks when expected civilian harm outweighs the concrete and direct military advantage anticipated. The principle is articulated in Additional Protocol I to the Geneva Conventions (Protocol I)<sup>3</sup> and is accepted as customary international law.<sup>4</sup> Analyzing the positions of international bodies, states (including CCW states parties), and legal scholars, this paper shows that there is a growing trend to include the aftereffects of cluster munitions in the proportionality calculus. If, as this trend posits, the proportionality test encompasses harm to civilians both at the time of attack and afterwards,<sup>5</sup> most cluster munition attacks, particularly those in populated areas, are disproportionate and therefore illegal. There is thus strong evidence that the international community increasingly recognizes the foreseeability of cluster duds and finds the post-strike impacts of the weapons unacceptable and unlawful.

The trend also reinforces support for a ban on the production, transfer, stockpiling, and use of these weapons. Cluster munition use is usually illegal under existing IHL, which is increasingly interpreted to include aftereffects in proportionality analysis, yet existing law has not limited the use and proliferation of these weapons. While there may be in theory legal uses of cluster munitions, the authors of this paper have yet to find an actual conflict where parties have used cluster munitions uniformly in a manner fully consistent with IHL. At a minimum, inclusion of the analysis of aftereffects in the proportionality test should lead governments that are unwilling to contemplate a comprehensive ban at this time to prohibit cluster munition use in populated areas; these governments should also take other steps to reduce harm to civilians, such as immediately removing from service and destroying stockpiles of older, more unreliable cluster munitions. In order to deal effectively with the threat to civilians from cluster munitions, however, states must adopt a comprehensive ban.

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<sup>3</sup> Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of International Armed Conflicts (Protocol I), adopted June 8, 1977, 1125 U.N.T.S. 3, entered into force December 7, 1978, arts. 51(5)(b), 57(2)(a)(iii) [hereinafter Protocol I].

<sup>4</sup> See, for example, International Committee of the Red Cross (ICRC), *Customary International Humanitarian Law: Volume 1: Rules* (Cambridge: Cambridge University Press, 2005), Rules 14 and 17.

<sup>5</sup> For further discussion of this interpretation, see section “The Bases for an Aftereffects Interpretation.”

## Background on the Proportionality Test and Cluster Munitions

The proportionality test assesses the legality of all armed attacks, including those involving cluster munitions. It creates a balancing test whereby parties engaged in a conflict are required to consider whether the civilian harm from an attack outweighs the military advantage anticipated. In Article 51(5)(b), Protocol I to the Geneva Conventions articulates the test, prohibiting attacks “which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated.”<sup>6</sup> This principle is laid out again in Article 57(2)(a)(iii), which orders military planners to “refrain from deciding to launch any attack which may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated.”<sup>7</sup> Protocol I has been ratified by 167 countries.<sup>8</sup> Furthermore, proportionality is considered customary international law, which means it is binding on states regardless of their treaty obligations.<sup>9</sup>

Cluster munitions raise concerns under the proportionality test both during strikes, because of the wide footprint of the scattering submunitions, which cannot be directed exclusively towards military targets in the area, and afterwards, because of the significant numbers of unexploded duds that act much like indiscriminate landmines. Cluster strikes in or near populated areas are particularly problematic because when combatants and civilians are in close proximity, civilian casualties are practically inevitable, and often high. If the proportionality test is interpreted as encompassing more than immediate losses,<sup>10</sup> the use of cluster munitions in or near populated areas is almost always disproportionate, and thus illegal, because of the harm their duds inflict on civilians over time relative to the military advantage sought.

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<sup>6</sup> Protocol I, art. 51(5)(b).

<sup>7</sup> *Ibid.*, art. 57(2)(a)(iii).

<sup>8</sup> This is the number of states parties as of March 25, 2008. International Committee of the Red Cross, “State Parties to the Following International Humanitarian Law and Other Related Treaties as of 25-Mar-2008,” [http://www.icrc.org/web/eng/siteeng.nsf/html/party\\_main\\_treaties](http://www.icrc.org/web/eng/siteeng.nsf/html/party_main_treaties) (accessed April 2, 2008).

<sup>9</sup> See ICRC, Customary International Humanitarian Law, Rules 14 and 17.

<sup>10</sup> See next section for further discussion of this interpretation.

## The Bases for an Aftereffects Interpretation

Both the text of the law, which establishes no time bar, and the nature of the weapon, which makes aftereffects foreseeable, support interpreting the proportionality test to include aftereffects. First, there is nothing in the language of the proportionality test itself that puts a time limit on civilian harm. The test refers to “incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof.” The International Committee of the Red Cross (ICRC) commentary to Protocol I does not define “incidental loss,” including in terms of time.<sup>11</sup> Other commentators equate “incidental loss” with “collateral damage,” or damage that is an unintended byproduct of an attack, but also do not mention time.<sup>12</sup> Moreover, as the emphasis in IHL is the protection of civilians and others *hors de combat*, it would be unreasonable to interpret the term “incidental” as including an arbitrary or artificial temporal limit, as opposed to looking at the causal relation between an attack and the harm that flows directly and foreseeably from it.<sup>13</sup>

Second, many states have expressly said that the foreseeability of weapons’ aftereffects requires the proportionality test to weigh more than the immediate effects of a strike. The preamble of the final declaration of the CCW’s Third Review Conference, adopted in November 2006, recognized “the foreseeable effects of explosive remnants of war on civilian populations as a factor to be considered in applying the international humanitarian law rules on proportionality in attack and precautions in attack.”<sup>14</sup> Accepted by more than 100 states, including major users,

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<sup>11</sup> ICRC, *Commentary on the Additional Protocols of 8 June 1977 to the Geneva Conventions of 12 August 1949* (Geneva: Martinus Nijhoff Publishers, 1987), pp. 625-626, 683-685.

<sup>12</sup> Yoram Dinstein, *The Conduct of Hostilities under the Law of International Armed Conflict* (Cambridge: Cambridge University Press, 2004), p. 120 (“Nowadays, customary international law recognizes the principle of proportionality. In the words of Judge Higgins, in her dissenting opinion in the Nuclear Weapons Advisory Opinion: ‘The principle of proportionality, even if finding no specific mention, is reflected in many of the provisions of Additional Protocol I to the Geneva Conventions of 1949. Thus, even a legitimate target may not be attacked if the collateral civilian casualties would be disproportionate to the specific military gain from the attack.’”) (quoting International Court of Justice (ICJ), *Advisory Opinion, Legality of the Threat or Use of Nuclear Weapons*, Dissenting Opinion of Judge Higgins, July 8, 1996, p. 587, <http://www.icj-cij.org/docket/files/95/7525.pdf> (accessed April 6, 2008)); Dieter Fleck, ed., *The Handbook of Humanitarian Law in Armed Conflicts* (Oxford: Oxford University Press, 1995), p. 178 (Article 51 “now ultimately settles that all damaging effects of military operations must be measured on the yardstick of proportionality. The collateral damage which inevitably occurs on the occasion of nearly every attack is justifiable so long as losses to the ‘innocent’ civilian population are commensurate with the military advantage which the operation sought to achieve.”).

<sup>13</sup> ICRC, *Commentary on the Additional Protocols*, p. 626 (saying “Incidental losses and damages should never be extensive.”).

<sup>14</sup> CCW Third Review Conference, “Final Document, Part II, Final Declaration,” CCW/CONF.III/11 (Part II), Geneva, November 7-17, 2006, p. 4.

such as Israel, Russia, the United Kingdom, and the United States, and other major stockpilers, such as China, India, and Pakistan, the declaration is an explicit statement that the proportionality test takes into account aftereffects.<sup>15</sup>

This position is particularly important for cluster munitions because their ongoing, horrific, and predictable aftereffects are well documented. Human Rights Watch has found ample evidence of the harm caused by cluster munition duds over the past decade. In Afghanistan, for example, duds left by the US air campaign killed or injured more than 100 civilians in the first year after the Taliban lost power.<sup>16</sup> In the city of al-Hilla, Iraq, alone, doctors reported about 250 civilian deaths and injuries from duds from April 1 to August 31, 2003.<sup>17</sup> In Lebanon, cluster munition duds left by Israeli attacks in the summer of 2006 have caused approximately 200 casualties to date.<sup>18</sup> The ICRC relied on this kind of evidence when issuing a statement at a 2005 CCW meeting, concluding that “in light of the experience gained from the use of cluster munitions in past conflicts and the work of governments and organizations to address them, the ICRC is of the view that the application of the proportionality rule must now include the extended impact of submunitions (and other ordnance) that become ERW.”<sup>19</sup> As the ICRC articulated, well-known cases make arguments that militaries could not predict serious aftereffects specious. They also exemplify the difficulty armed forces that use these weapons have in complying with existing IHL.

## Discussion within the CCW Context

States parties to the CCW expressed their strongest support for the premise that the aftereffects of cluster munitions should be part of a proportionality analysis in the

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<sup>15</sup> The CCW has a total of 105 states parties. Cameroon, Gabon, Madagascar, and Saudi Arabia acceded to the treaty after the statement was issued. ICRC, “International Humanitarian Law—Treaties & Documents,” <http://www.icrc.org/ihl.nsf/WebSign?ReadForm&id=500&ps=P> (accessed April 6, 2008). In a general analysis of aftereffects, Michael Schmitt explained that the proportionality test has always included aftereffects but that direct effects have overshadowed them in the past. He notes that “of course, reverberating effects were theoretically always calculated when assessing proportionality. However, it is only now that the means exist to limit dramatically direct collateral damage and incidental injury that we are being sensitized to reverberation.” Michael Schmitt, “The Principle of Discrimination in 21<sup>st</sup> Century Warfare,” *Yale Human Right & Development Law Journal*, vol. 2 (1999), p. 168.

<sup>16</sup> Human Rights Watch, *Fatally Flawed*, p. 25.

<sup>17</sup> Human Rights Watch, *Off Target*, pp. 128-129.

<sup>18</sup> Human Rights Watch, *Flooding South Lebanon*, p. 5.

<sup>19</sup> ICRC, “Existing Principles and Rules of International Humanitarian Law Applicable to Munitions that May Become Explosive Remnants of War,” CCW/GGE/XI/WG.1/WP.7, July 28, 2005, p. 5.

declaration mentioned above, but individual states' papers offer insight into state views and reinforce this position. In 2005 and 2006, states parties expressed their opinions about IHL applicable to ERW in response to a CCW Group of Governmental Experts (GGE) questionnaire.<sup>20</sup> A review of their responses shows that almost all of the responding states agreed that proportionality was relevant to assessing the use of munitions, including cluster munitions, which may become ERW.<sup>21</sup> Several states specifically addressed the issue of whether the proportionality test should consider the aftereffects of cluster munitions.

Most states that mentioned aftereffects posited that the post-strike effects of cluster munitions should be taken into account in a proportionality analysis. The stockpiling countries of Austria, Brazil, the Czech Republic, Norway, Sweden, and Switzerland all took this position.<sup>22</sup> Austria said, for example, that “the application of the principle [of proportionality] is not limited to the intended effects of an attack. . . . [T]he effects of duds—which are inherently incidental—seem to be covered by this provision.”<sup>23</sup> Brazil commented that the proportionality principle applies if the remains of cluster munitions might continue to cause casualties long after the end of the armed conflict.<sup>24</sup> Accordingly, Brazil said that “the post-conflict effects” should be taken into account at the time of use.<sup>25</sup> The Czech Republic also noted that “the use of munitions, which is [sic] likely to fail, might contradict this principle [of proportionality], as the low reliability of such munitions could cause collateral damage exceeding the lawful level by increasing its probability and decreasing its

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<sup>20</sup> Group of Governmental Experts of the States Parties to the CCW, “International Humanitarian Law and ERW,” CCW/GGE/X/WG.1/WP.2, March 8, 2005. One of the questions the GGE posed was:

Which existing principles of IHL applicable to the use of force during an armed conflict are considered relevant to the use of munitions, including submunitions, that may become ERW? (i.e. military necessity, distinction, discrimination, proportionality, precautions taken before and during an attack, superfluous injury/unnecessary suffering, environmental protection, any others?).

<sup>21</sup> See also Timothy L. H. McCormack, Paramdeep Mtharu & Sarah Finnin, “Report on States Parties’ Responses to the Questionnaire International Humanitarian Law & Explosive Remnants of War,” March 2006, p. 7, [http://www.gichd.ch/fileadmin/pdf/CCW/XIIth\\_Mtg\\_Maro6/CCW\\_McCormack\\_Report.pdf](http://www.gichd.ch/fileadmin/pdf/CCW/XIIth_Mtg_Maro6/CCW_McCormack_Report.pdf) (accessed March 13, 2008).

<sup>22</sup> Human Rights Watch, Cluster Munition Information Chart, June 15, 2007, <http://hrw.org/campaigns/clusters/chart/index.htm>.

<sup>23</sup> Austria, “Responses to Document CCW/GGE/X/WG.1/WP.2, entitled IHL and ERW, Dated 8 March 2005,” CCW/GGE/XI/WG.1/WP.14, August 4, 2005.

<sup>24</sup> Brazil, “Responses to Document CCW/GGE/X/WG.1/WP.2, entitled IHL and ERW, Dated 8 March 2005,” CCW/GGE/XII/WG.1/WP.1, September 12, 2005.

<sup>25</sup> *Ibid.*

military effectiveness.”<sup>26</sup> Norway wrote that the proportionality principle is particularly applicable to cluster munitions because of their high dud rate, large number of submunitions, and wide footprint.<sup>27</sup> Norway also stated that military commanders must take into consideration “both the humanitarian concerns related to the direct impact of the munitions as well as the humanitarian effects caused by unexploded ordnance remaining on the ground after the attack.”<sup>28</sup> Implying that aftereffects should be taken into account, Sweden said that “a cluster bomb with submunitions that have a high dud rate and is used in populated areas is likely to create disproportionate suffering for the civilian population compared with the military advantage from the use of such a weapon.”<sup>29</sup> Finally, Switzerland noted that the “proportionality assessment . . . must also take into account the foreseeable incidental long-term effects of an attack such as the humanitarian costs caused by duds becoming ERW” such that “ammunitions with high dud rates will influence the proportionality balance negatively and diminish the options of their use against legitimate military objectives.”<sup>30</sup> All of these states have also decided to join the Oslo Process to negotiate a treaty banning cluster munitions that cause unacceptable harm to civilians in 2008.

A team of experts who analyzed these state positions agreed that they show that the proportionality test should encompass aftereffects. In a report on the questionnaire responses, Timothy McCormack and his colleagues said that aftereffects should be taken into account because the probability of creating long-lasting and harmful ERW by deploying cluster munitions is foreseeable.<sup>31</sup> The McCormack Report found that most responding states (97 percent) said that the proportionality test was relevant to “the use of munitions, including submunitions, that may become ERW,”<sup>32</sup> but that

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<sup>26</sup> Czech Republic, “Responses to Document CCW/GGE/X/WG.1/WP.2, entitled IHL and ERW, Dated 8 March 2005,” CCW/GGE/XIII/WG.1/WP.2, February 10, 2006.

<sup>27</sup> Norway, “Responses to Document CCW/GGE/X/WG.1/WP.2, entitled IHL and ERW, Dated 8 March 2005,” CCW/GGE/XI/WG.1/WP.5, July 29, 2005.

<sup>28</sup> *Ibid.*

<sup>29</sup> Sweden, “Responses to Document CCW/GGE/X/WG.1/WP.2, entitled IHL and ERW, Dated 8 March 2005,” CCW/GGE/XI/WG.1/WP.8, July 29, 2005.

<sup>30</sup> Switzerland, “Responses to Document CCW/GGE/X/WG.1/WP.2, entitled IHL and ERW, Dated 8 March 2005,” CCW/GGE/XI/WG.1/WP.13, August 3, 2005.

<sup>31</sup> McCormack et al., “Report on States Parties’ Responses,” p. 19.

<sup>32</sup> *Ibid.*, p. 7. Although several NGOs and states parties criticized the ultimate findings and conclusions of the McCormack Report, they generally agreed with the data reported throughout the paper. For example, Human Rights Watch agreed with

states had not reached consensus about how to apply it.<sup>33</sup> Some said that military planners must know the characteristics of a weapon, such as the likely dud rate, in order to conduct a proper proportionality calculation.<sup>34</sup> Such information is available for cluster munitions, and according to McCormack, “after years of experiencing the effects of ERW including the collation of data on the humanitarian effects, parties to an armed conflict cannot simply ignore the likely longer term effects of the use of cluster munitions in civilian residential areas or in other areas civilians are expected to return to after the cessation of hostilities.”<sup>35</sup> He concluded, therefore, that “[t]he proportionality test obligates military planners to take account of all expected consequences for the civilian population to be sure that the expected military advantage is significant enough to justify the anticipated civilian loss of life.”<sup>36</sup>

In a report to states parties at the same CCW session at which the McCormack Report was released, the Geneva International Centre for Humanitarian Demining (GICHD) highlighted another way that states have already acknowledged that the principle of proportionality extends after strikes. In the context of anti-personnel mines, “three-quarters of the world’s States have agreed to prohibit totally these weapons not only because of their indiscriminate effects but also because of their disproportionate impact on civilians for years after their emplacement.”<sup>37</sup> Since states have already taken long-term effects into account in the context of mines, the GICHD said that it saw no reason to limit the consideration of the impact of any weapons to the hours

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McCormack’s assessment that some states argued that the proportionality test should take into account the aftereffects of cluster munitions; however, HRW thought the data collected in the Report should have led to opposite findings. Human Rights Watch, *Responses to the IHL and ERW Questionnaire and the McCormack Report*, March 2006, <http://hrw.org/backgrounder/arms/armso306a/>.

<sup>33</sup> McCormack et al., “Report on States Parties’ Responses,” p. 18-20.

<sup>34</sup> *Ibid.*, p. 19.

<sup>35</sup> *Ibid.*, p. 20. This argument can also be used to undermine a 2002 report to the GGE by Christopher Greenwood. Greenwood argued that the proportionality test should only take into account the risks from submunitions exploding during a strike and in the hours immediately afterwards. He said that because the longer-term risks of ERW are “too remote to be capable of assessment” at the time of attack, and the proportionality test must be applied at the time of the attack, these risks cannot be taken into account in the proportionality calculation. Christopher Greenwood, “Legal Issues Regarding Explosive Remnants of War,” CCW/GGE/I/WP.10, May 23, 2002, <http://www.ccw-treaty.com/KeyDocs/GGE1/CCW-GGE-I-WP10-E.pdf> (accessed November 12, 2007), p. 8. Given the research done by organizations, including Human Rights Watch, before and after 2002, it is clear that the aftereffects of cluster munitions are capable of assessment.

<sup>36</sup> McCormack et al., “Report on States Parties’ Responses,” p. 20.

<sup>37</sup> Geneva International Centre for Humanitarian Demining, “Report on States Parties’ Responses to the Questionnaire International Humanitarian Law & Explosive Remnants of War: A Critique by the Geneva International Centre for Humanitarian Demining,” March 2006, pp. 2-3, [http://www.gichd.ch/fileadmin/pdf/CCW/XIIIth\\_Mtg\\_Mar06/GICHD\\_Critical\\_analysis\\_CCW\\_McCormack\\_Report.pdf](http://www.gichd.ch/fileadmin/pdf/CCW/XIIIth_Mtg_Mar06/GICHD_Critical_analysis_CCW_McCormack_Report.pdf) (accessed March 13, 2008).

immediately following the attack.<sup>38</sup> Instead, the GICHD urged states to consider not just immediate impact, but any other impact that is “reasonably foreseeable.”<sup>39</sup> The same principles that led the international community to find it necessary to produce the Mine Ban Treaty to control landmines effectively are now leading most of the world to negotiate a treaty to ban cluster munitions.

## Legal Scholarship

Legal scholarship, which reflects and informs the development of international law,<sup>40</sup> concurs that the aftereffects of cluster munitions should be taken into consideration in the proportionality test. For example, according to law professor Thomas Michael McDonnell, cluster munition duds are incompatible with the proportionality principle: “Aside from constituting an indiscriminate weapon, the dud cluster bomb after landing violates the proportionality principle set forth in Article 51 of the Protocol.”<sup>41</sup> Professor Virgil Wiebe has written that “[c]luster munitions can also be shown to be temporally indiscriminate, as their high initial misfire rates combined with their small size convert them into de facto landmines. These cumulative characteristics of cluster bombs make them inherently indiscriminate and outweigh their military utility.”<sup>42</sup>

Military officers and experts have similarly used the foreseeability principle to criticize an interpretation of the proportionality test that does not include aftereffects. In the *Air Force Law Review*, for example, Maj. Thomas Herthel stated that “[m]ission planners should consider not only the direct and immediate consequences of a cluster munitions strike with respect to immediate collateral damage, but in light of the known dud rates, the fact that additional collateral damage is likely to occur in

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<sup>38</sup> *Ibid.*

<sup>39</sup> *Ibid.*, p. 3.

<sup>40</sup> The Statute of the International Court of Justice which lists, as one source of law it will apply in its decisions, “the teachings of the most highly qualified publicists of the various nations, as subsidiary means for the determination of rules of law.” Statute of the International Court of Justice, 59 Stat. 1055, T.S. No. 993, 3 Bevens 1179, June 26, 1949, art. 38, <http://www.icj-cij.org/documents/index.php?p1=4&p2=2&p3=0> (accessed March 13, 2008).

<sup>41</sup> Thomas Michael McDonnell, “Cluster Bombs Over Kosovo: A Violation of International Law?” *Arizona Law Review*, vol. 44 (2002), p. 82.

<sup>42</sup> Virgil Wiebe, “Footprints of Death: Cluster Bombs as Indiscriminate Weapons under International Humanitarian Law,” *Michigan Journal of International Law*, vol. 22 (2000), p. 88.

the future.”<sup>43</sup> He advised that “commanders should recognize that deployed cluster munitions will leave *some* unexploded ordnance on the battlefield. Any proportionality analysis should calculate this factor.”<sup>44</sup> Herthel also cited military expert Anthony Cordesman, who criticized the United States for not including this factor in past analyses. Cordesman declared that “[s]aying that such weapons cause collateral damage but ignoring them in the assessment of collateral damage is just one more way in which NATO and the US failed to address the issue of collateral damage in realistic terms and with analytic integrity.”<sup>45</sup> The views of such scholars have contributed to the evolution of the thinking by international bodies and states, many of whom now favor a ban on cluster munitions.

## Other Weapons

Weapons treaties and international jurisprudence also provide precedent for an interpretation that includes aftereffects by applying this factor in the proportionality analysis to other weapons. Both types of sources show that the international community regularly considers a weapon’s post-strike effects when evaluating the legality of its use.<sup>46</sup>

International weapons treaties have been concerned with the long-term impact of weapons for at least a century. As early as 1907, the Hague Convention VIII Relative

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<sup>43</sup> Maj. Thomas J. Herthel, “On the Chopping Block: Cluster Munitions and the Law of War,” *Air Force Law Review*, vol. 51 (2001), p. 268.

<sup>44</sup> *Ibid.*, p. 268, n. 286.

<sup>45</sup> *Ibid.*

<sup>46</sup> There is an increasing view among scholars that the proportionality test includes a weapon’s aftereffects in contexts other than cluster munitions. Davis Brown proposed regulating the abuse of computer systems during conflict. In his article, Brown drew on the proportionality test to support his argument that aftereffects of war tactics can be more harmful than their immediate effects. His argument, which compared the long-term harm of different weapons, assumed the inclusion of aftereffects in the proportionality test. Similarly, some scholars have argued that the proportionality test should include not only injuries and deaths, but also the costs of damaged civilian infrastructure and lost electricity. Davis Brown, “A Proposal for an International Convention to Regulate the Use of Information Systems in Armed Conflict,” *Harvard International Law Journal*, vol. 47 (2006), pp. 195-196 (“[L]ong-term effects of injuries caused by chemical weapons, such as blister agents, are far more painful than any long-term injuries caused by conventional weapons. Use of such weapons violates the rule of proportionality. . . . The same may be said of computer viruses.”). Judith Gail Gardam’s book on international humanitarian law discussed the 2003 Iraq war attacks on infrastructure targets, such as electricity grids, and noted that “continuing controversy over the long-term impact on the civilian population of such tactics . . . had some influence on policy-makers and may indicate an acceptance that the proportionality equation will henceforth take account of such likely outcomes.” Judith Gail Gardam, *Necessity, Proportionality and the Use of Force by States* (New York: Cambridge University Press, 2004), p. 119. The latter argument is particularly relevant to cluster munitions whose duds destroy livelihoods, especially agriculture, as well as lives. These legal scholars presume the inclusion of aftereffects in the proportionality test and argue for the inclusion of additional indirect harm.

to the Laying of Automatic Submarine Contact Mines prohibited the use of sea mines and torpedoes that did not become harmless within a very short period of time.<sup>47</sup> More recently, Amended CCW Protocol II on the Use of Mines, Booby-Traps and Other Devices said that “[a]ll feasible precautions shall be taken to protect civilians from the effects of weapons to which this Article applies. . . . These circumstances include, but are not limited to: (a) the short and long-term effect of mines upon the local civilian population for the duration of the minefield.”<sup>48</sup> The Mine Ban Treaty also refers to the long-term harm of weapons. It expresses in its preamble a determination to end mines’ “severe consequences for years after emplacement” and includes requirements for clearance, risk education, and victim assistance to deal with long-term effects.<sup>49</sup> Finally, CCW Protocol V on ERW stated that it “recognize[d] the serious post-conflict humanitarian problems caused by explosive remnants of war.”<sup>50</sup> Protocol V mandated that parties to an armed conflict “take all feasible precautions . . . to protect the civilian population, individual civilians and civilian objects from the risks and effects of explosive remnants of war.”<sup>51</sup> The treaty requirements to consider post-conflict civilian harm when conducting military operations resemble the proportionality calculus a state must undertake when planning a cluster munition attack.

The 1996 Advisory Opinion of the International Court of Justice (ICJ) on the “Legality of the Threat or Use of Nuclear Weapons” also demonstrates a requirement for military planners to weigh a weapon’s aftereffects before use. After being asked by the UN General Assembly to consider the legality of the threat or use of nuclear

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<sup>47</sup> Hague Convention VIII Relative to the Laying of Automatic Submarine Contact Mines, 3 Martens Nouveau Recueil (ser. 3) 580, 205 Consol. T.S. 331, entered into force January 26, 1910. Article 1 states:

It is forbidden—

1. To lay unanchored automatic contact mines, except when they are so constructed as to become harmless one hour at most after the person who laid them ceases to control them;
2. To lay anchored automatic contact mines which do not become harmless as soon as they have broken loose from their moorings;
3. To use torpedoes which do not become harmless when they have missed their mark.

<sup>48</sup> This protocol directly copies Protocol I’s proportionality test in Article 3(8)(c), but it does not define it further. Its language on long-term effects comes in a section of the same article. CCW Protocol on Prohibitions or Restrictions on the Use of Mines, Booby-Traps and Other Devices as Amended on 3 May 1996 (Amended Protocol II), 1125 U.N.T.S. 609, art. 3(10)(a).

<sup>49</sup> Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction, September 18, 1997, 36 I.L.M. 1507, pmb1.

<sup>50</sup> CCW Protocol on Explosive Remnants of War (Protocol V), November 27, 2003, U.N. Doc. CCW/MSP/2003/2, entered into force November 12, 2006, pmb1 [hereinafter CCW Protocol V].

<sup>51</sup> *Ibid.*, art. 5.1.

weapons, the ICJ declared that “in order correctly to apply . . . the law applicable in armed conflict, in particular humanitarian law, it is imperative for the Court to take account of the unique characteristics of nuclear weapons, and in particular . . . their ability to cause damage to generations to come.”<sup>52</sup> As with cluster munitions, serious aftereffects characterize nuclear weapons. There are aspects of the opinion that support the consideration of the aftereffects of a weapon when assessing its proportionality and legality under IHL. Several judges explicitly addressed the consideration of the aftereffects of nuclear weapons in determining the legality of these weapons under IHL.<sup>53</sup> Judge Shahabuddeen stated in his dissenting opinion, for example, that even if the aftereffects of nuclear weapons were an unintended “by-product” of the weapon, they should still be considered in assessing the weapon’s legality.<sup>54</sup> The ICJ acknowledgement of the importance of taking aftereffects into account when assessing the use of nuclear weapons, along with the mandate to consider aftereffects in other weapons treaties, demonstrates an international practice of considering aftereffects at the time of a weapon’s use.

## Conclusion

This study of the positions of international bodies, states, and legal scholars regarding IHL shows that most in the international community now believe that the proportionality principle requires consideration of the aftereffects of a weapon, such as a cluster munition, or an attack. Such an approach is particularly important with regard to cluster munitions because their footprint and inevitable duds make civilian victims, even after hostilities, virtually guaranteed. If, as growing numbers of authorities contend, the proportionality test encompasses aftereffects along with effects at the time of attack, cluster munitions, especially when used in populated areas, almost always can be “expected to cause incidental loss of civilian life, injury

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<sup>52</sup> International Court of Justice, Advisory Opinion, Legality of the Threat or Use of Nuclear Weapons, July 8, 1996, para. 36, <http://www.icj-cij.org/docket/files/95/7495.pdf> (accessed March 13, 2008) [hereinafter ICJ Advisory Opinion].

<sup>53</sup> See, e.g., ICJ Advisory Opinion, Declaration of President Bedjaoui, para. 20, <http://www.icj-cij.org/docket/files/95/7499.pdf> (accessed March 13, 2008); ICJ Advisory Opinion, Dissenting Opinion of Vice-President Schwebel, p. 320, <http://www.icj-cij.org/docket/files/95/7515.pdf> (accessed March 13, 2008); Summary of Advisory Opinion of 8 July 1996, Judge Weeramantry’s dissent, <http://www.icj-cij.org/docket/index.php?p1=3&p2=4&k=e1&case=95&code=unan&p3=5> (accessed March 13, 2008).

<sup>54</sup> ICJ Advisory Opinion, Dissenting Opinion of Judge Shahabuddeen, p. 381, <http://www.icj-cij.org/docket/files/95/7519.pdf> (accessed March 13, 2008).

to civilians, damage to civilian objects, or a combination thereof” which is “excessive in relation to the concrete and direct military advantage anticipated.”<sup>55</sup>

This trend in interpretation reinforces the need for a legal instrument that would ban the production, transfer, stockpiling, and use of cluster munitions. Knowledge of the long-term impact of clusters on civilians and the violations of the proportionality test call for strengthening and clarifying existing IHL to eliminate doubts about when cluster munitions can be used. It would also help prevent armed forces from routinely violating IHL when using cluster munitions as they do today.

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<sup>55</sup> Protocol I, art. 51(5)(b), 57(2)(a)(iii).