LESSONS FROM IRAQ AND AFGHANISTAN: IS IT TIME FOR THE UNITED STATES TO SIGN THE OTTAWA TREATY AND END THE USE OF LANDMINES?

ARTHUR RIZER*

TABLE OF CONTENTS

I. INTRODUCTION ................................................................. 36
II. HISTORY ............................................................................. 37
   A. History of Landmines Warfare ...................................... 37
      1. The First Silent Killers.............................................. 37
      2. The Revolution of Landmines ................................. 40
      3. With Sticks and Duct Tape: IEDs ............................ 42
   B. History of the Law ....................................................... 43
      2. Ottawa Treaty ......................................................... 46
      3. The United States’ Role in Landmine Law .............. 49
   C. Reconciling the Law and the Weapons ......................... 53
III. A NEW DIRECTION: SECURITY PRAGMATISM .................. 54
   A. Morality is Not Relative ............................................. 55
   B. Military Effectiveness ............................................... 63
   C. Power in Numbers ...................................................... 66
IV. THE OTHER SIDE: COUNTERARGUMENTS ......................... 68

* Arthur Rizer is a prosecutor with the United States Department of Justice, Criminal Division. Mr. Rizer also serves as an Adjunct Professor of Law at Georgetown University’s Law Center. Mr. Rizer earned a Bronze Star and Purple Heart while serving with the U.S. Army in Iraq—he received his Purple Heart after he was injured by a road-side bomb in Karmah, Iraq in 2005. Sixty-one years earlier, the author’s grandfather, Arthur L. Rizer, Sr., was seriously injured by an anti-personnel mine in Southern France, during WWII, for which he too received a Purple Heart. The views expressed by Mr. Rizer are entirely his own, and he does not speak for the Department of Justice, the U.S. Army, or the Georgetown Law Center. The author would like to thank Professor David Koplow at Georgetown Law Center for his encouragement to write on this subject. The author would also like to thank the staff and editors at Willamette University Law Review for their work in helping bring this piece to publication, especially Rachel Constantino-Wallace, Michael H. Jones, Kelly Huedepohl, Kathryn Ludwig, Elena Martinis, Jessica Witt, Seth Nickerson, Rachel Schwartz-Gilbert, Jefferson Quist, and Cathi Rickett.
I. INTRODUCTION

If the United States is the military Goliath around the world, then improvised explosive devices (IEDs)—homemade landmines—are the smooth stones that have brought the giant to its knees. IEDs are responsible for 69% of all combat wounded in Iraq, and 53% of those wounded in Afghanistan. Thus, out of the more than 30,000 Americans that have been wounded in Iraq and 15,000 in Afghanistan, approximately 28,000 were wounded and 2,000 were killed by roadside landmines.

This article begins with a short history of landmines: the early models that were simple spikes, the sophisticated designs seen in the cold war, and the patchwork mines that coalition forces are seeing in Iraq and Afghanistan today.

Next, this article will survey the law of landmines—discussing the history of the movement to ban landmines, specifically focusing on the Ottawa Treaty and the Convention on Certain Conventional Weapons Treaty that govern the manufacturing and use of landmines today. This section will also examine the role that the United States has played in the development of landmine law.

Then, this article will advocate the United States take a new direction in landmine law by joining the Ottawa Treaty and leading a movement to improve its provisions. This article will argue that before the wars in Iraq and Afghanistan the United States was fairly


inexperienced with the horrors of landmines, at least on the levels seen in Iraq and Afghanistan. The most recent war fought in the United States was the civil war, which took place well before the explosion in landmine technology—there are no landmines left buried in the hills of Gettysburg today.\textsuperscript{4} On the other hand, countries in Asia, Africa, and even Europe have seen the deadly impact of leftover landmines years after the bloodshed. So too has the Middle East—IEDs in Iraq and Afghanistan are killing Americans, but they are killing even more civilians. Americans are now confronting the devastation caused by the success of the IED strategy in Iraq and Afghanistan both in terms of direct harm to American troops, and also the way landmines indiscriminately kill children, women, and other innocent civilians whose only crime was to be in the proximity of a soldier,\textsuperscript{5} or who are just unlucky. Hence, it is time for the United States to reconsider its position on landmine law and, not only join the Ottawa Treaty, but also campaign to improve it.

\section*{II. History}

\textbf{A. History of Landmines Warfare}

1. The First Silent Killers

The word “mine” is derivative of the Latin word \textit{mina}, which means “vein of ore.”\textsuperscript{6} The word was used by soldiers whose mission it was to dig mines in the ground in which to place explosives, which would cause the collapse of fortifications during a siege.\textsuperscript{7} While today’s landmines are commonly associated with explosions, the lineage of the weapon more accurately traces its roots to ancient traps, such as spikes and stakes.\textsuperscript{8} One such device, known as a caltrop, was a four-spiked device fashioned from iron (originally fashioned from

\textsuperscript{4} Mike Croll, The History of Landmines 20 (1998). It should be noted that mines were used in the Civil War and this experience, for the first time, “demonstrated the longevity of mines in the ground. In 1960 five landmines with Rains fuzes were recovered near Mobile Alabama. Nearly a hundred years after they were laid it was noted that they were ‘still quite dangerous.’” Id. Yet these incidents in the United States are extremely rare, according to a 1995 study there are a total of 24,000 landmine victims every year. Victims, http://members.iinet.net.au/~pictim/mines/victims/victim.html (last visited May 5, 2009).

\textsuperscript{5} “Soldier” specifically denotes persons who serve in the Army. In the interest of simplicity, “soldier” is used throughout this article to refer to all service members.

\textsuperscript{6} Croll, supra note 4, at ix.

\textsuperscript{7} Id.

\textsuperscript{8} See id. at 4–5.
bone), so that when thrown on the ground, one spike always points upward.9 This simple device has proved extremely reliable, ensuring that the caltrop “[w]ith an almost unchanged [design] in 2,500 years, [is possibly] the longest serving piece of military hardware in existence.”10 It was only a matter of time before gunpowder would be used “in concealed weapons”11—in the nineteenth century mines became an effective tool of warfare.12

The United States’ Civil War was a time of transition in the way armies deployed on the battlefield.13 It was during this war that mines were developed to be used both in the water and on land.14 “By the end of the war, landmines (or torpedoes as both land and water mines were termed during the period) had damaged fourteen and sunk twenty-nine Union ships; a greater tally than all the warships of the Confederate Navy.”15

The Confederate Army, in the face of a much larger force, found it necessary to enhance their defensive front in order to expose the Union troops to as much attrition as possible for as long as possible.16 In other words: “It was perhaps inevitable that the inventive ability of the Americans, with their fascination for the automation, would

9. Id. at 5. The Romans used these devices extensively in defensive operations; early American settlers used the weapon to fend off attacking Indians; and as late as the Vietnam War, caltrops were used by the Vietcong. See id. at 6, 8.
10. Id. at 6. Mike Croll, the author of The History of Landmines, found caltrops in Cambodia that were almost identical to those used by the Romans. Id.
11. Id. at 8. Gunpowder was used by the Chinese starting in the twelfth century and by the thirteenth it was being deployed in the form of a landmine. Id.
12. Id. The design of this early device, called a “fougasse,” was basic: a lance or flag stuck in the ground, something that would attract a passing horseman looking for a trophy. Id. “The act of pulling a pole from the ground initiated an igniter attached to a buried gunpowder charge.” Id. Later other methods were used to ignite the mine, including an observer pulling on a string when the enemy was in the blast zone. Id.
13. Id. at 10.
14. See id.
15. Id. “The ability of a cheap mine to destroy an expensive warship was an irresistible economic argument for its employment.” Id. In addition:
Union troops were later to discover that an artillery bombardment on a suspected minefield could cut [ ] cables and disrupt the mines. This procedure, while generally effective, also added to the burden imposed by mines. More ammunition would have to be manufactured, transported and fired, and the ground assaulted would time more time to cross, having been churned up by a thorough bombardment. Thus the increase in time and resources imposed upon the attacker by landmines greatly multiplied their effectiveness.

Id. at 12.
16. Id. at 15.
produce a weapon that would kill its victim without the need for a trigger to be pulled.” 17 While the basic knowledge of a pressure-activated landmine was around for many years before the Civil War, “it is unlikely that the American citizen-soldier was aware of them. It is therefore reasonable to credit (or reproach) the Americans with the development of the first operational devices.” 18

Pressure landmines are deployed in much the same way as caltrops. 19 However, the use of explosives in lieu of spikes renders the product far more devastating in its effects since a mine causes injuries far in excess of the weight acting upon it. 20 This new triggering mechanism was developed first by Confederate Brigadier-General Rains. 21 When his 2,500 men defended a garrison at Yorktown against General McClellan’s 100,000-man army, Rains ordered his men to lay down his makeshift mines. 22 Rains used the mines to facilitate his retreat to Richmond; when the Union Army pursued and set off several mines, the “Union cavalry hesitated, leaving Rains and his men to reach Richmond in safety.” 23

This new tactic did not go unnoticed by either side. In the South, some enlisted soldiers thought that the weapon was barbaric. Rains’ commanding officer, General James Longstreet, ordered that the weapons not be used, “declaring them neither a ‘proper nor effective method of war.’” 24 The Confederate Secretary of War, George W. Randolph, eventually weighed in on the subject and asserted that the

17. Id.
18. Id. at 15–16.
19. Id. at 14. See supra, notes 9–10 (describing caltrops and the method of deploying them).
20. Id. The ability to build these early pressure landmines has existed since the sixteenth century; however, these early landmines were not as reliable as the fougasse and cost considerably more than the caltrop. Id. Nevertheless, “[t]he concept of the pressure-operated landmine . . . remained on the drawing board for perhaps three centuries.” Id. at 14–15.
21. Id. at 16.
22. Id.
23. Id. at 16.
24. Id.
new weapon was appropriate in order to delay a pursuit, as part of a
defensive line to repel an attack, and against warships in rivers.25 The
North, on the other hand, declared that practice “murder”; though the
Yorktown incident killed less than 36 men, the physiological damage
was significant as “soldiers . . . imagined every conceivable place to
be booby-trapped. An atmosphere of fear . . . pervaded the
abandoned Yorktown and all other places subsequently attacked and
occupied by Union troops.”26 The landmine wars had begun.

2. The Revolution of Landmines

During World War I, the machine gun became the weapon of
choice because the opposing nations took defensive postures, and the
machine gun could fire 600 bullets per minute, making “any use of
anti-personnel mines [the] military equivalent of gilding the lily.”27

World War II, however, saw unprecedented advances in war-
making technology, including the technology behind modern
landmines.28 In 1939, it remained rare for landmines to be widely
deployed.29 However, by 1945, all major military forces considered
them an important component for defense and “over a hundred
different types mine[s] had been used in combat.”30 The famous
German General Edwin Rommel at the battle El Alamein, a
watershed of mine warfare, laid a half a million mines in order to
slow the allies.31 The tactic worked—the allies, who had a 2-to-1
advantage in tanks, got bogged down in Rommel’s mine-field.32 If

25. Id.
26. Id. at 17. “The total number of landmines used during the war was probably under
20,000 and they returned in total perhaps a few hundred casualties, which, in a war that caused
the death of 620,000 seems insignificant.” Id. at 18–20.
27. Id. Anti-tank mines were first used in WWI and were effective at stopping the new
history/history.html (last visited May 1, 2009).
28. Id. at 96.
29. Id.
30. Id. “The massive increase in the number and types of mines during the Second
World War, although largely German-led, was not the result of some particular characteristic
of the German psyche. All armies engaged in mine warfare during the war but none mastered
it like the Germans.” Id. at 51.
31. Id. at 61. The Soviets were also very active in mine development and fielding.
Some reports put the number of Soviet mines laid during the Second World War as high as
222 million, although that is clearly an exaggeration. Id. at 66. However, the Russians were
known to lay massive mine fields: on the Eastern front they laid 3,200 mines for every mile of
front. Id.
32. Id. at 61, 63.
Rommel had not attacked the allies—which weakened his forces—the allies may not have been able to break Rommel’s line. Thus, absent his error in judgment, Rommel might not have had to retreat from Africa.33

While WWII may have been the apex of mine warfare,34 it was not the end, as demonstrated by the Vietnam War. Vietnam burned the very soul of the American soldier and citizen—for all its advanced military technology and tactics, America was unable to defeat its shadowy enemy.35 A major factor in this defeat was the failure of the United States to effectively deal with the Vietcong’s offensive landmine operation, which at times paralyzed American forces.36

The 1950s through the ‘70s saw an increase in countries developing vehicles that could mechanically lay hundreds of mines in minutes.37 For example, the United States developed a system where a single jet aircraft could field 564 mines at once—covering an area of 200-by-300 meters.38 Later, the American military was able to deploy mines using artillery, called “area-denial artillery munitions” or ADAM.39 “By the 1980s mines had assimilated all aspects of modern technology and had become an integral part of fast-paced manoeuvre warfare.”40

During the past century, landmines increased in importance on the battlefield.41 While many argue that the greatest development in mine warfare was the ability to deploy large quantities of mines with very limited manpower, this author disagrees. The ability of a small guerilla force to bring a superpower to its knees as seen in Vietnam and, if not to a lesser extent, currently Iraq and Afghanistan, is arguably the most significant development in this area of war-fighting.42 This is especially true because landmines can be made in

33. See id. at 63.
35. CROLL, supra note 4, at 102.
36. Id.
37. See id. at 110–11.
38. Id. at 13.
39. Id.
40. Id. at 114.
41. Id. at 123 (“Its effect was never decisive, but always influential, subtle, but never insignificant.”).
42. See id.
caves and bedrooms, whereas other conventional weapons, such as rifles, require factories that are easy to locate and destroy.

3. With Sticks and Duct Tape: IEDs

In actuality, all exploding landmines before the Second World War were IEDs\(^43\)—and while the Second World War may have been the zenith of the manufactured landmines, improvised landmines were the key force multipliers used against the United States in Vietnam, Iraq, and Afghanistan.\(^44\) It is likely that insurgents would use manufactured landmines if they could obtain them. However, because improvised devices can be designed to meet the local battlefield requirements and can be made in places not easily detected and targeted, they have become the preferred weapon in insurgencies.\(^45\) Understanding the devices is necessary to fully comprehend the backdrop of the law in this field. As we will see below the law evolved to address different aspects of this weaponry and because weapons also develop faster than the law, the world has been playing catch up ever since.

An IED-maker can use commercial explosives—whatever old munitions he has on hand—or make the explosives from household goods.\(^46\) IEDs can employ numerous triggering mechanisms, from remote radio waves to a simple rubber hose that, when stepped on or driven over, ignites the explosion using the change in air pressure in the hose as a trigger.\(^47\)

Moreover, the types of IEDs vary greatly. The most common IED currently used in Iraq is the 155-artillery-shell, which is wired to explode on the ground and designed to kill foot soldiers and disable vehicles. In Afghanistan insurgents are making most of their own calcium ammonium nitrate—a fertilizer produced in Pakistan—which can be used to make explosives, a tactic first seen in the First World War.\(^48\) The Iraqi insurgency also used and uses very sophisticated

\(^43\) See generally id. at 8–36.
\(^44\) See infra Part III.A.
\(^45\) Id.
\(^47\) Id.
\(^48\) See CJTF-7, OIF SMART CARD 4 (Jan. 2, 2004), http://www.fas.org/irp/doddir/army/ied-smartcard.pdf; CROLL, supra note 4, at 26. “Anti-personnel mines were adapted from artillery shells, although fuzes were manufactured
explosively formed penetrator (EFP), or “shape-charged,” IEDs.49
“The shape charge concentrates blast energy to punch through armor
plating, and then propels the molten metal into the vehicle’s cabin.”50

B. History of the Law

1. Convention on Certain Conventional Weapons

There has been a fundamental shift in the way international law
treats landmines.51 These weapons were never viewed as
extraordinary, and thus in need of a special rule, in the same way as
some other weapons, such as mustard gas.52 Indeed, much like a rifle
or an artillery barrage, landmines were considered conventional run of
the mill weapons.53

This was true until the late 1980s and early 1990s, when many
started to notice the durable violence of landmines, long after the last
soldier had left the battle field.54 A land mine fielded in 1954 is just
as likely to explode in 2012 as it was in 1954.55 Thus, a device that
was once meant to stop an advancing army eventually kills a child
decades after the conflict ends.

The first international attempt to limit landmines was the
Convention on Certain Conventional Weapons (CCW), also known as
the Inhumane Weapons Convention.56 The CCW is an international
specifically for use in this role. These were simple pressure fuzes which screwed into the nose
of the shell.” CROLL, supra note 4, at 26. See also Tom Vanden, Majority of IEDs are traced
10-02/ieds-traced-to-pakistan/50638686/1 (“More than 80% of the IEDs [seen in Afghanistan]
are homemade explosives using calcium ammonium nitrate fertilizer produced in Pakistan.”).

49. Wilson, supra note 46, at 3. The last American killed by an EFP was David
Emanuel Hickman on November 14, 2011 in Baghdad, Iraq. Operation Iraqi Freedom, Iraq

50. Wilson, supra note 46, at 3.
51. See CROLL, supra note 4, at 133–36.
52. See id.
53. See id.
54. See id.
(stating that “[m]any of the mines dropped decades ago may have effective lifetimes of
centuries.”) (This is strictly accurate – the detonators often deteriorate, making them safer in
one way, but the nitroglycerin (or similar unstable components) used in some mines will
“sweat” out and sometimes make them go off simply by being jolted. Thus some mines might
become inert and others become hyper-dangerous.).

56. Convention on Prohibitions or Restrictions on the Use of Certain Conventional
Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate
convention intended to ban or restrict the use of specific types of weapons that cause unnecessary or unjustifiable suffering to combatants or affect civilians indiscriminately.\textsuperscript{57} The Convention itself contains very broad provisions and leaves the specifics to its annexed Protocols.\textsuperscript{58} There were originally three Protocols adopted on October 10, 1980—there are now five.\textsuperscript{59} The Amended Protocol II on Anti-Personnel Land-Mines went into effect on December 3, 1998 and currently has 98 State parties.\textsuperscript{60}

The major difference between Protocol II and the Ottawa Treaty,\textsuperscript{61} which is discussed in the next section, is that it “regulates but does not ban the use of landmines and booby-traps.”\textsuperscript{62} Anti-personnel landmines (APL) are permitted under the CCW, but if deployed they must be kept in a clearly marked and protected field, or equipped with self-destruct and self-deactivation mechanisms that will render the mine inoperable after a predetermined period of time.\textsuperscript{63}

---

\begin{itemize}
\item \textsuperscript{57}  UNOG, supra note 56.
\item \textsuperscript{58}  See generally CCW, supra note 56.
\item \textsuperscript{59}  See id. See also UNOG, supra note 56.
\item \textsuperscript{61}  An international treaty that aims at globally eliminating anti-personnel landmines from use. \textit{International Campaign to Ban Landmines}, http://www.icbl.org/intro.php (last visited Nov. 16, 2012).
\item \textsuperscript{63}  Id. Protocol II, supra note 60, at 1211 (art. 5).
\end{itemize}
Moreover, under the CCW, a mine must be detectable using conventional mine-detecting equipment.\textsuperscript{64} However, because the CCW regulates how mines are used and does not ban them outright, many advocates for the ban of landmines concluded that the Convention was inadequate. The drafters of the Ottawa Treaty attempted to remedy this flaw, specifically because the “rules [of the CCW] on use were considered too complex and too dependent on the acquisition of new technologies to have a reasonable chance of being implemented in most conflicts in the developing world where landmine casualties were most widespread.”\textsuperscript{65} Indeed, when faced with the choice between a mine that would remain active indefinitely, and a mine that would self-destruct after only 30 days, the choice was “a predictable one for most poor armies and insurgent groups.”\textsuperscript{66} The countries that signed the Ottawa Treaty say that the only way to eliminate the civilian cost of landmines is to ban all landmines, not just the low-tech versions.\textsuperscript{67} According to the Ottawa signers, because only wealthy countries will be able to afford the “smart” self-destructing mines as outlined in the CCW, poorer countries will argue that because they can only afford the dumb mines, and because the wealthy countries can purchase smart mines, they must have at least dumb mines.\textsuperscript{68} The only way to avoid this argument is to ban landmines all together.

\textit{Protocol II, supra note 60, at 1216.}

\textsuperscript{64} Protocol II, \textit{supra} note 60, at 1210.

\textsuperscript{65} Peter Herby & Eve La Haye, \textit{How Does it Stack Up? The Anti-Personnel Mine Ban Convention at 10}, \textit{37 ARMS CONTROL TODAY} 6, 7 (2007).

\textsuperscript{66} \textit{Id.}

\textsuperscript{67} \textit{See id. at 6.}

\textsuperscript{68} \textit{See generally id. at 7.}
2. Ottawa Treaty

As of September 2012 there were 160 parties to the Ottawa Treaty, formally known as the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction.69 There are currently 36 countries that have not signed or ratified the treaty, including the People’s Republic of China, Iran, Russia, and the United States of America.70

The history of the Ottawa Treaty is unique in international law. In the early 1990s, the devastating consequences of old landmines started to receive attention.71 Several groups joined forces with the goal to internationally ban the use, stockpiling, and production of landmines.72 In four short years the movement recruited 1,400 religious and non-governmental organizations, with six such organizations forming the initial steering committee to realize a complete ban on landmines.73 With the help of celebrities like Princess Diana, the organization was able to organize quickly and


Jody Williams won the Nobel Peace Prize in 1997. When she began, the thought of banning a universally accepted weapon was dismissed as a utopian fantasy. Besides, she occupied no position of authority and had no special standing on the matter that required decisions by presidents and national legislatures. Nonetheless, with seven colleagues and a fax machine, Williams carried out an unprecedented lobbying and publicity campaign, eventually attracting the support of more than one thousand organizations in over sixty countries, as well as the support of a wide range of celebrities, from Princess Diana to Nelson Mandela to General Norman Schwarzkopf. In less than a decade, that citizens’ initiative convinced 150 nations to renounce land mines, destroy current stock, and prohibit future manufacture of this weapon.


73. AFRICA-ASIA, supra note 71.
generate media attention for their cause, which in turn yielded widespread public awareness.\textsuperscript{74}

In March of 1995 Belgium announced that it was domestically banning the use, production, and export of landmines.\textsuperscript{75} However, despite this small victory and the success that the movement had in bringing public attention to the issue, “without direct governmental support, the movement found it difficult to elevate the issue to the international legislative level.”\textsuperscript{76}

One year later, in what is referred to as the “Ottawa Process,” the Canadian government held a conference to which 50 countries sent representatives in order to create an international standard on the legality of landmines.\textsuperscript{77} The group set a goal to come back in one year “with an agreed international convention,” which it did.\textsuperscript{78} “The speed and momentum of the movement was unprecedented, culminating in December 1997 with the Ottawa Convention where 122 nations signed the Convention...”\textsuperscript{79} The Treaty would go into effect after it was ratified by 40 countries.\textsuperscript{80} On March 1, 1999, Burkina Faso became the 40th country to ratify the treaty and it went into effect as international law. “This was the first time in history that some states agreed to ban completely a weapon in widespread use by most of the world’s armed forces.”\textsuperscript{81}

This principle of the Treaty is simple: “civilians should not be killed or maimed by weapons that strike blindly and senselessly, either during or after conflicts...”\textsuperscript{82} To reach this goal the Treaty established that parties may not produce, transfer, and, within 4 years, must destroy all landmine stockpiles, save a small supply for the purpose of training in how to detect and disarm landmines.\textsuperscript{83} Further,

\textsuperscript{74} See id. “Hundreds of civil society groups flooded to join the movement including major international agencies such as the International Committee of the Red Cross (ICRC) and different UN agencies.” Id. These efforts included the help of “people [like] Princess Diana to bring the matter into people’s living rooms and on their TV screen—to such an extent that governments began to think: ‘yes, why don’t we ban landmines’.” Id (internal quotation marks omitted).

\textsuperscript{75} Id.

\textsuperscript{76} Id.

\textsuperscript{77} Id.

\textsuperscript{78} Id.

\textsuperscript{79} Id.

\textsuperscript{80} Id. at 40.

\textsuperscript{81} Herby & La Haye, supra note 65.

\textsuperscript{82} Id. at 10.

\textsuperscript{83} RED CROSS, supra note 72; Ottawa Treaty, supra note 1. The Treaty sets out that a
the Treaty requires that, within 10 years of joining, a country should clear and destroy all landmines within its territory. 84 However, because some signing nations have a high proliferation level of landmines and do not have the financial capability to clear all of their emplaced mines within the 10-year window, they may seek help from the international community to help clear their mines. 85

According to the Treaty a mine is defined as “a munition designed to be placed under, on or near the ground or other surface area and to be exploded by the presence, proximity, or contact of a person or vehicle.” 86 The Ottawa Treaty is primarily intended to eliminate APLs. 87 Conversely, remotely detonated mines are not covered under the Treaty. 88 This is true because remote mines do not continue “killing and maiming after hostilities have ended.” 89 Thus, because a remote mine is detonated by a triggerman and “aimed” at a particular target it does not have the generation-killing effect of APLs and is less “barbaric.” 90

The Ottawa Treaty has been a success. While there are still a reported 15,000 to 20,000 new victims of APLs per year, this number

---

84. Ottawa Treaty, supra note 1. “In a unique development for an international treaty on weapons, the convention contains not only prohibitions or regulations of certain weapons. It also contains positive commitments to international cooperation in mine clearance and in providing for the care, rehabilitation, and social and economic reintegration of mine victims.” Herby & La Haye, supra note 65, at 6.

85. Ottawa Treaty, supra note 1. “The campaign pressed hard for the convention to legally bind signatories to act in positive ways in not only ending the use, production, stockpiling and transfer of mines but also to remove mines, promote mine awareness and assist victims of landmines.” AFRICA-ASIA, supra note 71.

Extensions are not automatic and should be for the minimum period to implement a well-prepared and adequately funded clearance operation. It is important that extensions requests be managed in a way that maintains the credibility of the treaty and creates maximum pressure for completion before and deadline or within a realistic and well-planned extension period.

Herby & La Haye, supra note 65, at 9.

86. Ottawa Treaty, supra note 1.

87. Ottawa Treaty, supra note 1, at art. 2, § 1.

Anti-personnel mines are mines that are designed to explode by the presence, proximity or contact of a person and that will incapacitate, injure or kill one or more persons. Mines designed to be detonated by the presence, proximity or contact of a vehicle as opposed to a person, that are equipped with anti-handling devices, are not considered anti-personnel mines as a result of being so equipped.

Id.

88. See Ottawa Treaty, supra note 1, at art. 2.

89. Herby & La Haye, supra note 65, at 9.

90. See id.
is down from an average of 26,000 per year in the 1990s.\footnote{Id. at 8. See also The Problem of Landmine Victim Assistance, IRIN, http://www.irinnews.org/InDepthMain.aspx?InDepthId=19&ReportId=62806 (last visited Sept. 9, 2012).} Moreover, “[t]he international trade in these weapons has virtually ceased, with a significant number of non-parties enforcing export moratoria, including China, India, Pakistan, Russia, Singapore, South Korea, and the United States of America.”\footnote{Herby & La Haye, supra note 65, at 7.}

The Ottawa Treaty has 156 parties and the CCW Protocol II has 88 parties. Assuming the measure of success is the \textit{number} of nations that join a treaty, the total-ban approach has had more success in the international community.\footnote{See id. at 8.} However, if success is determined by \textit{which} nations join a treaty, the CCW has, not only the world’s most powerful nations, but also China, India, Israel, Pakistan, Russia, and the United States—the nations that have produced the most mines.\footnote{Arms Control Ass’n, supra note 62.}

3. The United States’ Role in Landmine Law

For many years the United States appeared to be the leader in reducing the threat of landmines throughout the world.\footnote{Richard A. Matthew & Ken R. Rutherford, Banning Landmines in the American Century, \textit{Int’l J. on World Peace}, June 1998, at 23, 30–34.} The United States led a campaign and funded programs to train and equip countries with mine detectors.\footnote{See id.} In 1992, the United States became the first country to unilaterally declare a moratorium on exporting landmines through the Export Moratorium, which has been cited as a contributing factor in the decrease in landmine injuries.\footnote{Id. at 30–31.} In 1993, the United States Senate, led by Patrick Leahy, pushed to have the moratorium extended for three more years and succeeded with a 100-
to-0 vote. The Senate has since made the moratorium permanent.\(^98\) In 1994, Senator Leahy organized the first congressional hearing on landmines, titled “The Global Landmine Crisis.”\(^99\) The very next year, Senator Leahy attempted to push legislation banning the use of landmines by the U.S. military through—an effort thwarted by then-President Clinton and the Pentagon.\(^100\) Three years later, in 1998, the State Department issued a report titled Hidden Killers: The Global Landmine Crisis that acted as a powerful impetus for governmental action against landmines.\(^101\) Indeed, the introduction of the report, written by Secretary of State Madeleine K. Albright, notes that “[n]ear the start of this century, 90 percent of wartime casualties were soldiers. As the century wanes, 90 percent are civilians”—a statistic largely due to landmines.\(^102\)

The United States was also one of the first countries to sign the CCW.\(^103\) Despite this, the United States regularly faces condemnation for not joining the Ottawa Treaty.\(^104\) Critics cite this failure as proof of U.S. exceptionalism\(^105\) and claim that it “reflects the U.S. refusal to subscribe to ‘multilateralism of any kind that either defines or enforces basic values and evidences U.S. hostility to ‘the development of international law and institutions.’”\(^106\)

In defense of its position, the United States asserts that its stance on landmines comes not from its refusal to subscribe to multilateralism, but rather from its unique security obligations around the globe—specifically in South Korea.\(^107\) Indeed, the Korean

\(^98\) Id.
\(^99\) Id.
\(^100\) See id.
\(^102\) Id.
\(^103\) Compare UNOG, supra note 56, with Ottawa Treaty, supra note 1.
\(^105\) “American Exceptionalism” is a phrase credited to Alexis de Tocqueville that refers to the United States’ perception that it differs qualitatively from other nations due to its unique history, origins, and special political institutions, and that it serves as a beacon to other nations. Harold Hongju Koh, On American Exceptionalism, 55 STAN. L. REV. 1479, 1485–87 (2003).
\(^107\) See Phillip Bobbit, American Exceptionalism: The Exception Proves the Rule, 3
Demilitarized Zone on the 38th parallel [hereinafter Korean DMZ] is virtually the only place where the United States uses mines that would be banned by the Ottawa Treaty. 108 The mines are deployed across a 151-mile stretch of no-man’s land abutting a country “where a highly dangerous and unpredictable regime has put a million heavily armed troops within twenty-five miles of the South Korean capital.” 109 Some argue that even with the massive mine field, the U.S. and Republic of Korea (R.O.K.) forces could not withstand an advance from North Korea. 110

Those who support the U.S. position have asked: “Would Canadians and Swedes, who have been most critical of the American deployment of mines, be willing to take up these responsibilities with their own forces (with or without landmines)?” 111 During the negotiations surrounding the Ottawa Treaty, the delegation from the United States attempted to include a provision in the final treaty that excluded the Korean DMZ from the final proposal. 112 This proposal was rejected. The United States then attempted to obtain an additional nine years to remove mines in Korea beyond the 10 provided for in the Treaty; this provision also was rejected. 113

Therefore, the United States refrained from joining the Ottawa Treaty, not because of its contempt for international law, but rather because the Treaty failed to address the United States’ security commitments. 114 It has also been noted that the majority of the signing countries to the Ottawa Treaty “join[ed] the Convention

108. Id. at 330; Safrin, supra note 104, at 1319.
110. Id.
111. Id. Bobbit goes on to state:
Without U.S. extended deterrence, which is assured by the presence of U.S. ground forces, it is highly unlikely that South Korea would be content to remain a non-nuclear power in light of North Korea’s acquisition of nuclear weapons, with all the consequences for nuclear proliferation to Japan. Surely this is not a step toward a safer and more humane world.
114. Id. at 1320.
without incurring a military cost of the kind identified by the United States and other nonparties. The Convention bans stockpiling, yet sixty-four of the parties never had such stockpiles.\footnote{115}{Id. at n.62 (citing MAJOR FINDINGS, LANDMINE MONITOR REPORT 2006 (Landmine Monitor 2006) (reporting that worldwide stockpiles of landmines have declined from 260 million before the Convention to 180 million)).} Despite the United States’ failure to join the Ottawa Treaty the world has seen a dramatic decrease in the use, production, and transfer of anti-personnel mines.\footnote{116}{Herby & La Haye, supra note 65, at 7.} Principally because of the Treaty’s legal provisions, but also because landmines have been greatly stigmatized around the globe.\footnote{117}{Id.} Indeed, only Myanmar and Russia have confirmed that they have planted new “Ottawa-banned” mines between 2006 and 2007.\footnote{118}{Id. at n.9 (citing INTRODUCTION, LANDMINES MONITOR REPORT 2007: TOWARDS A MINE-FREE WORLD (International Campaign to Ban Landmines 2007), www.the-monitor.org/index.php/publications/display?url=lm/2007/introduction.html (last visited Nov. 2, 2012) (Other uses for anti-personnel mines were reported by armed non-state actors in Myanmar and Colombia, for example.). “There have been allegations of use of antipersonnel mines by both Georgia and Russia during the fighting in August 2008, but each side denies it.” EXECUTIVE SUMMARY, LANDMINE MONITOR REPORT 2008 (International Campaign to Ban Landmines 2008), http://www.the-monitor.org/lm/2008/translations/LMES_2008_07_withMaps.pdf (last visited Sept. 4, 2012).} The United States, on the other hand, has not used Ottawa-banned mines in any of its past three conflicts in Kosovo, Afghanistan, or Iraq.\footnote{119}{Herby & La Haye, supra note 65.}

However, these successes do not satisfy critics.\footnote{120}{See Press Release, Office of U.S. Senator Patrick Leahy, Leahy Hits Bush Rollback Of U.S. Landmine Policy (Feb. 27, 2004) (on file with author).} According to Senator Leahy, George W. Bush’s administration wasted an opportunity during its tenure to take an active role in this area of

---

115. Id. at n.62 (citing MAJOR FINDINGS, LANDMINE MONITOR REPORT 2006 (Landmine Monitor 2006) (reporting that worldwide stockpiles of landmines have declined from 260 million before the Convention to 180 million)).


117. Id.

118. Id. at n.9 (citing INTRODUCTION, LANDMINES MONITOR REPORT 2007: TOWARDS A MINE-FREE WORLD (International Campaign to Ban Landmines 2007), www.the-monitor.org/index.php/publications/display?url=lm/2007/introduction.html (last visited Nov. 2, 2012) (Other uses for anti-personnel mines were reported by armed non-state actors in Myanmar and Colombia, for example.). “There have been allegations of use of antipersonnel mines by both Georgia and Russia during the fighting in August 2008, but each side denies it.” EXECUTIVE SUMMARY, LANDMINE MONITOR REPORT 2008 (International Campaign to Ban Landmines 2008), http://www.the-monitor.org/lm/2008/translations/LMES_2008_07_withMaps.pdf (last visited Sept. 4, 2012).

119. Herby & La Haye, supra note 65.

international law.  

Senator Leahy stated that President Bush’s policies rolled back progress and that because the United States backed away from the pledge to “rid the world of these indiscriminate weapons, others will ask why [the signing nations], with their much weaker armies, should stop using them.”

C. Reconciling the Law and the Weapons

Up until this point, this article has used the word “landmine” generically, to refer to any explosive device. However, now that the legal aspects of landmine warfare have been discussed it is important to parse the language and expound upon what is a “landmine” for purposes of international law. The provisions of Ottawa are simple, signing nations must destroy their APL stockpiles and clear and destroy all APLs within their territory. An APL is a landmine that is designed to detonate by the presence, proximity, or contact of a person.

As already discussed, command-detonated landmines are not landmines according to the Ottawa Treaty, which only covers proximity mines. “There are two basic categories of landmine[s]. Anti-tank mines are powerful explosives designed to destroy tanks and other vehicles. [These types of mines are] laid along transport routes (and thus relatively easy to locate), they often kill people as

---

121. Id.
122. Id. In conducting research for this article, the author contacted Senator Leahy’s office concerning his efforts to have the United States join the Ottawa Treaty. In response to the question: “will America’s experience in Iraq help shape its future on landmine treaty law,” Senator Leahy’s office responded that the Senator “has been active in the international effort to ban the production, export, and use of anti-personnel landmines,” and will continue this effort. Email from Allison M. Carragher, Member or Senator Leahy’s Staff, Office of Senator Leahy (Feb. 18, 2009) (on file with author). Senator Leahy has lobbied President Clinton, President Bush, and now President Obama on this topic. Press Release, Office of U.S. Senator Patrick Leahy, Anti-Personnel Mines: An American Problem (Mar. 1, 1999) (on file with author); Press Release, Office of U.S. Senator Patrick Leahy, Leahy Hits Bush Rollback Of U.S. Landmine Policy (Feb. 27, 2004) (on file with author); Press Release, Humanitarian, Faith, Medical and Veterans Groups Urge Obama to Review Landmine and Cluster Bomb Ban (Feb. 10, 2009), available at http://fcnl.org/press/releases/2009/ppdc_021009/ (“Leaders from 67 national organizations representing a wide cross-section of American values and constituencies issued a strong call today for President Obama to reconsider U.S. opposition to global treaties prohibiting the use, transfer, and production of antipersonnel landmines and cluster munitions.”).
123. See supra text Part II.B.ii
125. See Ottawa Treaty, supra note 1, at art. 2.
well.”126 The second category, and most relevant to this discussion, are APL landmines, which target individuals.127

In Iraq and Afghanistan, the enemy uses both APL and vehicle landmines.128 APLs are typically referred to as “dismounted IEDs” and vehicle landmines are often called “roadside IEDs.”129 It is interesting to note that the vast majority of IEDs in Iraq are vehicle borne—both proximity- and command-detonated—thus, according to Article II of the Ottawa Treaty they may be allowed.130 This is a major defect in the Ottawa Treaty that, as argued later, must be corrected.131 However this point does not take away from the thesis of the argument herein—regardless of the fact that many IEDs used against American forces may be technically legal, or legal for American forces to use against the enemy for that matter, facing these landmines in Iraq and Afghanistan has—or should have—given the United States a different perspective on the issue.

III. A NEW DIRECTION: SECURITY PRAGMATISM

If the United States joined the Ottawa Treaty and gave up APLs tomorrow, would it impact the rest of the world? Would North Korea also dismantle their mine fields on the DMZ and would the insurgents in Iraq and Afghanistan stop using IED landmines to kill and injure American and Iraqi service members? The answer to these questions is almost certainly not immediately, and probably not at all. Consequently, why should the United States change course on landmine law? More specifically, how would a major shift in international policy such as this make America safer?

In Iraq and Afghanistan, the IED strategy has not only been devastating to our troops, creating approximately 28,000 casualties, but this strategy has been key in preventing American forces from

127. Id.
128. Damien Cave, Bombs Imperil U.S. Troops Searching for Captures Comrades, N.Y. TIMES (May 20, 2007), http://www.nytimes.com/2007/05/20/world/middleeast/20search.html?_r=2&oref=slogin (discussing the increase in APLs in Iraq in May of 2007 and areas in Iraq where “vehicles had been bombed daily”).
129. See id. (referring to APLs as “dismounted improvised explosive devices,” or “dismounted I.E.D.’s” and discussing the countermeasures of defeated vehicle landmines or roadsides bombs”).
130. See Ottawa Treaty, supra note 1, at art. 2.
131. See infra Part III.C.
completing their tactical and strategic goals in the Middle East.\textsuperscript{132} Simply having a front row seat to the horrors of landmines in Iraq and Afghanistan is not necessarily enough for a major policy change on landmine policy. Nonetheless, the landmine experience from these two wars could, and should, be the impetus for a new discussion on landmines. This discussion should revolve around the argument that joining the Ottawa Treaty would increase the United States’ national security and the proposition that joining the Ottawa Treaty is the correct moral decision. Ultimately, the United States will do what is in its strategic interest, and while the experiences that this nation’s soldiers endure will shape the American posture, it is recognized that soldiers are expected to experience terrible things—they are, after all, warriors. Hence, the critical question to ask is: would joining the Ottawa Treaty make the United States safer?

\textit{A. Morality is Not Relative}

To put things in perspective, during World War II, 4.4 percent of American casualties were caused by landmines.\textsuperscript{133} In the Gulf War, landmines caused 6\% of the 1,364 casualties.\textsuperscript{134} Conversely, Operation Iraqi Freedom has seen an IED casualty rate of 60\%—a 1300\% increase.\textsuperscript{135}

Over 4,804 Americans have died in Iraq as of March 28, 2012.\textsuperscript{136} Roadside landmines have been the number one killer, more than rifle fire or mortar attacks combined.\textsuperscript{137} The IED threat is a danger that has bedeviled military leaders since the invasion.\textsuperscript{138} The Pentagon has responded with “a high-level task force headed by a retired four-star general, $6.7 billion in research and development, new high-tech
equipment and vehicles, and—perhaps most important—intelligence efforts to get inside the decision-making of an insurgency that is sophisticated, if largely low-tech.”

Because the enemy has learned very quickly that a conventional attack against U.S. forces is the best way to get killed, insurgent leaders have adopted the landmine strategy as their main effort, which quickly became very effective. In a Senate Armed Services committee hearing held in 2007, General John Abizaid, then-commander of U.S. Forces in the Middle East, said that IEDs were the “perfect asymmetric weapon—cheap, effective, and anonymous.” Then-Army Vice Chief of Staff, General Richard Cody, called them the “poor man’s cruise missile.”

In 2007, at the peak of the IED incidents, U.S. forces were attacked by IEDs 1,000 times per month—a four-fold increase from 2004. In addition to the number of IEDs, soldiers saw a tremendous advance in both bomb-making sophistication and placement and detonation tactics. It is true that roadside landmines are not a new phenomenon in war; what is new about the insurgent’s IED strategy in Iraq is the scope and scale of their use.

The United States has not been stagnant in responding to the IED threat. At one point, more than three billion dollars a year was being spent on countermeasures, including more armor on military vehicles and jammers to prevent radio signals from triggering remotely activated devices. The Pentagon requested nearly $500 million for the Joint Improvised Explosive Device Defeat Organization in their 2011 and 2012 requests. To a large extent these countermeasures have been effective. Indeed, some estimate that without this equipment, the casualty rate in Iraq could have been more than double

139. Id.
140. See id.
141. Id.
142. Id.
143. Id. This number represents both anti-personnel landmines and remote detonated mines. Id.
144. See id.
145. Id.
what it is today.\textsuperscript{147}

While the number of dead in Iraq and Afghanistan could be seen as relatively low considering the mission at hand and the sheer number of attacks, the number of wounded service members coming home is staggering.\textsuperscript{148} Many of the wounded have severe disabilities, including missing limbs and traumatic brain injuries.\textsuperscript{149} Indeed, the injuries seen in Iraq and Afghanistan would have likely been fatalities in past wars.\textsuperscript{150} In all likelihood, the IED attack recounted at the beginning of this article would have resulted in many more deaths, if it were not for advanced vehicle armor.\textsuperscript{151} As a result, the military is “bringing war home” at a much higher rate than in previous conflicts. Veterans of the conflict in Iraq and Afghanistan are also experiencing Post Traumatic Stress Disorder at much higher rates—they are surviving their traumatic experiences to suffer from the stress at a later date.\textsuperscript{152}

It is true that the use of IEDs in Iraq and Afghanistan has waned in the past couple of years; however, despite this drop in IED attacks, Iraq, and to a lesser extent Afghanistan, will forever be known as America’s IED war.\textsuperscript{153} American soldiers have faced the threat of

\textsuperscript{147} Knickerbocker, supra note 137.
\textsuperscript{148} Between March 19, 2003 and February 28, 2009, 4,245 American soldiers were killed and 31,102 American soldiers were wounded, for a combined total of 35,347 American combat causalities in Iraq. Operation Iraqi Freedom by Casualty Category Within Service, Defense Manpower Data Center, http://siadapp.dmdc.osd.mil/personnel/CASUALTY/OIF-Total.pdf (last visited Oct. 27, 2012). This is out of 870,000 soldiers who have served there in the six year period (an average of 145,000 soldiers serve in Iraq at any time, thus there have been roughly 870,000 tours in Iraq) this is a 4 percent causality rate. See also David Cloud, Number of Soldiers to Be Left in Iraq Remains Unclear, NY Times (Sept. 14, 2007), http://www.nytimes.com/2007/09/14/washington/14truthsquad.html?fta=y.
\textsuperscript{149} Knickerbocker, supra note 137.
\textsuperscript{150} See Tom Philpott, Rise in Survival Rate, Military.com Forum, (Nov. 10, 2005), http://www.military.com/Opinions/0,,Philpott_Index,00.html.
\textsuperscript{151} The HMMWV that was caught in the blast radius of the August 22, 2005 IED was hit with hundreds of pieces of shrapnel; if the armor had not stopped the shrapnel the personnel in the vehicle would have been killed or seriously wounded.
\textsuperscript{153} See generally Sherwood Ross, Improvised Explosive Devices (IEDs) and America’s War in Afghanistan, Global Research (Dec. 19 2011), http://www.globalresearch.ca/improvised-explosive-devices-ieds-and-america-s-war-in-afghanistan/28286. This is primarily due to the indiscriminate use of the IEDs by al Qaeda operatives killing civilians in mass numbers, which started a rebellion against the insurgents. In 2007, many Sunni areas fought back against both al Qaeda terrorists and local insurgency groups; this is often referred to as the Sunni Awakening. Hoda Jasim & Rahma al Salem, The
landmines since World War I, but never before has a conflict been so defined by a single military tactic.  

Much like the Vietnam War, this war on terror has had some humbling lessons to teach the United States. Eastern Europeans, Africans and the people from Southeast Asia have long lived with the horrors of landmines. For years they have witnessed their children and farmers lose legs and their lives by these simple, cheap, and destructive devices. The American people do not personally witness the explosions that cause injuries in Iraq and Afghanistan; however, the nation as a whole feels the effects of such explosions with each and every injured or killed service member. American soldiers are coming home with not only their own injuries, but with stories of lost friends and the carnage these weapons have inflicted upon civilians.

Moreover, the IEDs in Iraq and Afghanistan are inflicting economic damage to the United States. Tens of billions of dollars have been spent on IED countermeasures and tens of billions more
have been spent on treating those who have been injured by IEDs.155
More troubling is the fact that these numbers do not include the cost of treating this generation of soldiers for the years to come, which has been estimated to reach into the trillions of dollars.156

A few years ago the organization STOPLANMINES.ORG released a powerful video dealing with this issue.157 The video starts off with young American girls running out to a soccer field; the sun is shining and the parents are cheering for their daughter, Stacy, as she dribbles a soccer ball down the field and scores a goal.158 As Stacy and her team celebrate her goal she steps on a landmine and disappears in a cloud of smoke—the other girls start to scream, Stacy’s father screams her name as he runs to her lifeless body, other players with chunks of flesh missing from their legs are in complete shock.159 The screen fades to black as Stacy’s mother screams “Oh my God somebody help us.” The video concludes with the simple words “[i]f there were landmines here, would you stand for them anymore? . . .”160

156. See, e.g., Bryan Bender, US: Economists Say Cost of Iraq War Could Top $2 Trillion, BOSTON GLOBE (Jan. 8, 2006), http://www.corpwatch.org/article.php?id=13057. See also Matthew & Rutherford, supra note 97, at 2. “In over 60 countries, an estimated 110 million landmines are currently active. After hostilities have ceased or the mines otherwise have outlived their original purpose, they are often left behind, because they are extremely expensive to clear (from $100–$1000 each). . . The long-term public health costs are enormous (an estimated $3000 per victim)—and many countries are simply unable to provide adequate care or rehabilitation services.” Id. The United States is the largest contributor to humanitarian efforts to combat those injured by landmines and this aid is not cost effective. Press Release, Office of U.S. Senator Patrick Leahy, The Victim-Activated Landmine Abolition Act Of 2006 (Aug. 1, 2006) (on file with author).
158. Id.
159. Id.
160. Id. On their web site the organization states:
What would you do if you had to worry about landmines every time you went to the store, took a drive in the countryside or went to see your doctor?
That’s the reality for millions of people in about 80 countries. With such large numbers of people affected by landmines in countries that may seem very far away, it’s sometimes easy to forget about the problem.
Landmines may not be in your backyard, but they’re in the backyards of people all
The message of the video is simple and powerful: Americans would be much more concerned with the eradication of landmines if we were personally touched by them.161 But America has been touched by mines. It may not be in our suburbs, but our sons and daughters face devices much like the one demonstrated in the video in Iraq and Afghanistan. The video is correct in assuming personal contact would change the American public’s mentality toward landmines. Indeed, the IED threat has been on the minds of the media, politicians, and the military since the wars in Iraq and Afghanistan started.162 These devices have been referred to as “cowardly”163 and “barbaric.”164 Yet the United States still has failed to join the treaty that would ban these weapons.165 This is true despite the fact that most experts in this area agree that to do so would provide significant moral legitimacy to the United States.166

During the apex of the fighting in the Pacific during World War II the United States military, because of the shocking level of casualties it was taking routing the Japanese from the Pacific islands, requested permission from the President to use chemical weapons.167 President Roosevelt sent back a one sentence response: “All previous endorsements denied. Signed: Franklin D. Roosevelt, Commander in Chief.”168 President Roosevelt refused to use chemical weapons despite the fact his military was telling him it would save American

over the world. The United Nations is helping dozens of countries end the threat of landmines. You can help too by donating to have a minefield cleared.
The fight against landmines is a fight for the rights of people to live free from fear, in a safe environment conducive to development and peace.

STOPLANDMINES, supra note 157.

161. See id.
165. See supra Part II.B.iii.
166. See e.g., Interview with Dennis Barlow, Director of James Madison University Mine Action Information Center, March 6, 2009 [hereinafter Barlow Interview] (stating that we have lost the moral high ground with our allies over this issue).
168. Id.
lives because “[h]e saw the bigger picture, the long-term humanitarian implications, and thanks in part to his leadership, chemical weapons, which the War Department had called ‘the most effective weapon history has ever known,’ were stigmatized and have hardly been used since.”

It is true, chemical weapons are very “useful.” They not only have the potential to kill a great number of the enemy, but they also instill fear in the enemy. In World War I, in which chemical weapons were used extensively, there were over one million casualties caused by the attacks, however the number of fatalities due to poisonous gas was relatively small at just over 90,000. Despite the fact that victims of a gas attack had a relatively high chance of survival, with only about 7 percent of victims dying, gas still commanded the greatest fear from soldiers, making it an extremely effective military tool. Nevertheless, after the war steps were taken to ban the use of chemical weapons, first with the treaty of Versailles of 1919, which focused on Germany, and then with the Geneva Protocol. The United States saw the horrors of chemical warfare in WWI and consequently vowed not to use chemical weapons, partly because they were deemed immoral.

In Iraq and Afghanistan, the enemy has taped captured American soldiers being tortured and have even released tapes of Americans

---

169. Id.
170. See id.
171. See generally id.
173. See id.
174. Treaty of Peace with Germany (Treaty of Versailles), June 28, 1919, art. 171, 2 Bevans 43, 119 (“The use of asphyxiating, poisonous or other gases and all analogous liquids, materials or devices being prohibited, their manufacture and importation are strictly forbidden in Germany. The same applies to materials specially intended for the manufacture, storage and use of the said products or devices.”).
having their heads cut off while they pleaded for mercy. This “tactic” is effective in some respects: the greatest fear of an American soldier in Iraq or Afghanistan is being captured, and soldiers do not make the best tactical decisions when they make them out of fear. If the United States started to cut off the heads of insurgents when they were captured, it would be reasonable to conclude that people would think twice about becoming an insurgent. To take it a step further, the United States military could kill every single male in Iraq—the U.S. has enough bullets to carry out this mission and this would drastically reduce the insurgency. Yet we do not use these methods, not because they do not achieve results, but because they are illegal, and they are illegal because the international community, including the United States, has deemed them morally wrong.

A basic canon of military tactics, observed in Sun-Tzu’s *The Art of War*, is to always take the high ground. From the high ground you can better observe the enemy coming and attack the enemy at a greater distance. In the context of landmines, the high ground is also the moral high ground. The U.S. could gain goodwill in the global community by making some concessions to international opinion. The United States has been at the forefront of criticizing despotic regimes such as China, Iran, and Burma, it has supported the regime change in Libya and Egypt, and it supports a change in Syria but ironically the United States shares the distinction of maintaining the use of landmines with the very countries it accuses of engaging in cruel military tactics. It is remarkable to look at many of the other 35 countries that haven’t joined the Ottawa Protocol and to realize that the United States is a member of this gang of infamy.

177. See, e.g., AlFaraeen, *American gets his head cut off by Islam terrorist*, YOUTUBE (June 2, 2012), http://www.youtube.com/watch?skipcontrinter=1&feature=player_embedded &v=sxGWlOQZyEs&oref=http%3A%2F%2Fwww.godlikeproductions.com%2Fforum1%2Fmessage1891043%2Fp1&has_verified=1&bpctr=1347777184. (last visited September 12, 2012) (note that the video ends right before the head is cut off but the video provides a link to the full horrific video. Additionally, this video is regularly removed by YouTube in violation of service policy, but is later reposted.).

178. This is based on the author’s experiences in Iraq as well conversations with fellow veterans.


In many ways the United States has painted itself into a corner. The attitude of many other countries could be expressed as “how dare you lecture us on morality when you will not join something as simple as the Ottawa Treaty.” Indeed, many believe that this credibility gap is hurting the United States on strategic levels, making the lost moral high ground more powerful than the landmines themselves.182

There should be no illusion that joining the treaty would result in an idyllic world, with elimination of IEDs in Iraq and Afghanistan or a reduced threat from North Korea. However, the United States stands little chance of persuading the world to act more morally if we refuse to act in this area ourselves. As Senator Leahy stated, the United States should lead in stigmatizing these indiscriminate weapons so “the political price of using them serves as a deterrent. Will some rebel groups or rogue nations continue to defy the international norm? Undoubtedly the answer is yes. But by setting an example and using our influence we can reduce their numbers significantly to the benefit of our troops and the innocent.”

B. Military Effectiveness

One obvious question to ask in support of the United States’ current position is: what will China and Russia do with their APLs if America joins the treaty? If the U.S. joins and the other two countries refuse, would gaining this moral superiority give the U.S. a strategic advantage? It should be noted that China, as of 2008 reported “that facilities to produce anti-personnel mine[s] are idle, have shut down, or have been converted for production of other products such as plastic materials.”183 It is assumed that if the United States refuses to join the Ottawa Treaty, it is almost certain that the Chinese and Russians will also refuse. If, however, the United States could persuade China or Russia to join the Treaty, there would be enormous pressure on the third to join or else be the only major power to not have joined the Treaty.

But first the question of whether APLs give the United States a strategic advantage must be answered—this is critical in order to determine their “necessity.” Some argue that nuclear weapons are the most necessary and even moral weapons of all, because they only

182. See Barlow Interview, supra note 166.
183. EXECUTIVE SUMMARY, supra note 118.
have to exist to prevent war. Would the United States have fought a war with the Soviet Union if there was not a nuclear option? If the answer is “yes,” then beyond question the war would have had causalities in the millions. Thus nuclear weapons, from a certain point of view, through the doctrine of mutual destruction are necessary.

James Barlow is the Director of the James Madison University Mine Action Information Center and was interviewed by this author on this subject. According to Director Barlow, in order for a weapon system to be a “military necessity” in today’s war, the military benefit has to outweigh the negative humanitarian effects. For instance, anti-tank mines are necessary because they allow the Army to “channel armored vehicles on the battle field, preventing them from overrunning smaller lighter [formations]—this is a strategic need.” APLs, on the other hand, are really only effective at preventing very small elements, a platoon for example, from being overrun. While this might seem like a necessity for the platoon leader on the ground, it is a tactical decision; landmines do not serve the larger need and are thus not “effective at serving the strategic need.”

Director Barlow went on to cite Korea as an example of the faulty arguments underlying the claim that landmines are a “military necessity.” Specifically, Director Barlow pointed out that when he was working at the Pentagon, there was some support for the Ottawa Treaty when the landmine debate started. It was not until “the U.S.
commander in Korea declared ‘I need them,’ that both the White House and the Pentagon backed off” because the administration did not want to look like it was overruling an on-the-ground commander.193 Since then, the Pentagon has argued strenuously that these weapons are a “military necessity,” and as Director Barlow illustrated above, the U.S. position is that APLs can be used for force projection of small units.194 Specifically,

a small American unit is on an objective. They are facing an aggressor, a large-sized aggressor, and there are no reinforcements yet. You can place a minefield . . . between our people and the aggressor to slow [them] down . . . . If you have smaller forces, reduced forces, you can use mines to protect [the] flank in the absence of another battalion . . . . You can also use them to shape the battlefield.195

However, that APLs are effective at the small-unit tactical level is the very reason they are used primarily used in civil conflicts by guerrilla, insurgent, and terrorist groups.196 Therefore, just as Director Barlow argued, “[m]any analysts believe that, in fact, landmines do not win wars and are not at all essential to national security [because] their micro-utility [cannot] be justified in light of their macro-costs.”197

Senator Leahy has argued for twenty years that the military-necessity argument is without merit. Leahy contends that, as seen in the United States’ two wars in Iraq and Afghanistan, civilians are often the victims of landmines.198 Furthermore, these civilians do not

193.  Id.
194.  Matthew & Rutherford, supra note 95, at 27.
195.  Id.
196.  Id. at 29. “A 1996 study by the ICRC, for example, concluded that APLs have some tactical value but provide no strategic advantage.”  Id. Press Release, Office of U.S. Senator Patrick Leahy, Statement Of Sen. Patrick Leahy On The Victim-Activated Landmine Abolition Act Of 2006 (Aug. 1, 2006), available at http://leahy.senate.gov/press/200608/080106a.html (stating that “mines continue to be a weapon of choice, especially for rebel groups such as the FARC in Colombia and Hezbollah in Lebanon.”).

Anti-personnel landmines have only limited military utility, while their proliferation around the world has been a plague on civilian populations and also for U.S. troops.
have the body armor and armored vehicles as the U.S. Forces do. 

“[Civilians] are routinely caught in the cross fire. At any moment they are at risk of being killed or maimed by a landmine or other improvised explosive that lies in wait until triggered by whoever steps on it or drives over it.” Moreover, Senator Leahy challenges the military’s claim of necessity when the military has not thought it necessary to export an APL since 1992, produce an APL since 1997, or even use a mine, except in Korea, since 1991 in the Gulf War. With regard to mines in Iraq, there “is no evidence those mines had any effect or that the Iraqis even knew they were there.” Senator Leahy also maintains that the military’s argument is undermined by the fact that it has been developing alternatives to landmines for the past two decades and has “produced man-in-the-loop technology that is ready to be deployed in a new generation of mines that are not victim-activated,” thus making APLs unnecessary.

C. Power in Numbers

President Clinton stated that one of his biggest disappointments was that he could not sign the Ottawa Treaty. He went on to lament that the United States has done more “to get rid of land mines than any country in the world by far. We spend half of the money the world spends on de-mining [and we] have destroyed over a million of mines.”


200. Id.


The primary reason that he did not sign the Treaty was because it was “unfair to the United States and to our Korean allies in meeting our responsibilities along the DMZ in South Korea.” At the same time it must have been understood by the Clinton administration that while the United States was supporting one ally by not joining the Treaty, it was also alienating many more.

Particularly in Iraq and Afghanistan, would joining the treaty today make soldiers safer tomorrow? If the way to measure safety is the number of IED attacks, the answer is probably “no.” However, there has been much turmoil concerning the lack of international support for war in Iraq, and this lack of support was a major contributing factor to difficulties seen there. This might seem like a disingenuous question because one can never know if the United States would have received more international support in Iraq, and even Afghanistan, if it had joined the Ottawa Treaty or other popular international treaties for that matter. Traditionally, the United States of America has been viewed among its allies as a virtuous country, but we have lost some of our prestige because of our position on landmines.

Moreover, one provision of the Treaty provides that “[e]ach State Party undertakes never under any circumstances to assist, encourage or induce, in any way, anyone to engage in any activity prohibited to a State Party under this Convention.” Consequently, many signing states have expressed concern about participating with the United States in military operations because of they fear such participation could be seen as a violation of the treaty if the United States used APLs during the exercise.

204.  Id.
205.  Id.
208.  States Parties, supra note 69.

The use of APLs during joint operations is possibly the most controversial aspect of the Ottawa Treaty... The crux of the matter results from a context in which a party to the Ottawa Treaty undertakes a joint military operation with another state that is a nonsignatory. In practice, from the European perspective, this dilemma involves the
Director Barlow, when describing the allies of the United States and their reaction to the U.S. refusal to join the Treaty, said that “[w]e have dismayed our allies with this, and maybe we deserve the criticism a little. However, we have been demonized on this issue—accus[ed] of exclusivity, exceptionalism, typical American superiority, and just being indifferent.”210 As a result of the United States’ refusal, some nations have “been downright rude” to American representatives.211 Director Barlow recounted an incident where the American Ambassador was forced to leave the floor of a review conference by the Norwegian Ambassador—the latter accusing the United States of not paying for the right to be there.212 Yet national security decisions should not be made based on whether other nations will have opportunities to embarrass us. Director Barlow believes the United States, having “left ourselves out of the discussion,” has thus limited its influence in this area.213 “We were the leaders in this area, [but now] there are review conferences and expert committees that we cannot participate in. We could be part of the solution but instead we have locked ourselves out and hurt our national security by alienating our allies over a weapon we don’t even use.”214

Ultimately, it is true that the security that will be acquired from joining the Ottawa Treaty will not manifest itself immediatel—it is highly unlikely that a terrorist organization will discontinue plotting against America simply because the United States has forsaken landmines. However, by amplifying our reputation with our allies the United States will reap security benefits in the future.

IV. THE OTHER SIDE: COUNTERARGUMENTS

The United States’ official position on landmines is that the United States . . . On one end of the spectrum stands France . . . France has sought to formulate a [policy that refuses to participate with the United States in any action involving APLs’ or more significantly any action where the rules of engagement does not promise not to use APLs and] encompass all NATO missions [with such a policy].

Id.
210.  Barlow Interview, supra note 166.
211.  Id.
212.  Id.
213.  Id.
214.  Id.  Director Barlow contends that the United States does not really “use” landmines at all because the mines in Korea are actually deployed by the R.O.K.  Id.
military value outweighs humanitarian implications. Critics argue that this position is undermined by the very fact that the only place the United States deploys mines is in Korea. The current landmines in the United States’ arsenal were designed with the Soviet tank and infantry in mind, a military scenario that is now unlikely to occur. Thus, proponents of the landmine ban argue that, apart from the Korean peninsula, the United States’ policy not to join the ban is based on Cold War doctrine.

However, what this argument totally fails to recognize is that while it is true that landmines have very little utility in today’s environment, it is the next war that planners at the Pentagon are worried about. It has only been in the past few years that the United States moved away from basing its plans on Soviet hordes and started to transform the military to fight “low intensity” peace keeping conflicts. It was not until September 11, 2001, and the subsequent wars, that the military prepared for the “new types” of wars. This will be true in the future as well—the United States will not be able to predict type of war it will have to fight. According to some military experts, banning mines in front lines or in border wars would be imprudent. Some experts predict that mine technology will actually become more important as nations attempt to move faster, over larger distances, with fewer men.

On President Clinton’s last day in office he urged the incoming President, George W. Bush, to take the necessary steps “to enable the United States to eventually join the Ottawa Convention...” The

215. See Daniel Robert DeChaine, Global Humanitarianism: NGOs and the Crafting of Community 135 (2005). Ultimately that use of landmines is based on the belief that these weapons are essential and of a high military value, which outweighs their human cost. Id. “The U.S. government, for example, continues to frame the issue as one of political strategy, basing its refusal to sign the Mine Ban Treaty on the claim that AP mines are essential to the protection of its strategic interests in South Korea.” Id.

216. See generally id.


218. See generally id.

219. See generally United States, Dept. of Defense, Army Transformation Roadmap 2003, http://digital.library.unt.edu/ark:/67531/metadc22344/m1/1/?q=Army%20Transformation%20Roadmap%202003 (last visited October 14, 2012) (mapping out how the Army is changing to better meet future conflicts, particularly peace keeping missions).

220. Id.

221. Barlow Interview, supra note 166.

222. Croll, supra note 4, at 152.

223. Clinton Urges Bush to Sign Ottawa Convention, Arms Control Ass’n,
word “enable” was used because President Clinton supported Ottawa Protocol but ultimately could not join the Treaty. Specifically, the Clinton administration pledged to join the Treaty if the Pentagon could identify an alternative to the anti-personnel mines that are currently protecting the South Korean border.

The military has spent well over $100 million on finding an alternative, focusing on a Remote Area Denial Artillery Munition (RADAM), which may not even technically comply with the treaty because the artillery salvo was designed to be triggered by the proximity of the enemy. The other alternative system was built around a Man-in-the-Loop concept, “which is a mine triggered by [a gunner with a] remote control and thereby permitted under the treaty.” Making an alternative to simple APLs is proving to be very difficult and expensive. This is especially frustrating for the United States when one considers that its currently stocked mines are effective and cheap. Also, the United States’ military does not use mines in the method that has caused the most concern—laying them in civilian areas or not recovering them after the conflict is over. Accordingly, the United States argues that it is being labeled as the “bad guy,” when it actually has a long track record of responsibility in this area. This is particularly true because the United States currently uses self-neutrality mines that disarm themselves, and therefore do not contribute to the humanitarian issue, which is at the center of the Ottawa Treaty.

As mentioned, the United States associates itself with countries thought to have less-than-stellar human rights records when it refuses to join the Ottawa Treaty. Many argue that this line of reasoning is without merit. Like the United States, China and Israel also did not ratify the treaty, and each also identifies a specific security threat


224.  See id.

225.  Id.

226.  Id. (the Man-in-the-Loop system may not comply with the treaty because it “can be modified so that it is target activated. . .”).

227.  Id.

228.  See id.


230.  See supra Part II.B.
where landmines are particularly valuable to national security. The United States’ “refusal to join thus remains unexceptional even when assessed within the confines of the Convention itself. Of the thirty-nine countries that have not joined the Convention, most could identify a particular border which they believed necessitated the use of landmines.” Conversely, the states that have joined the Treaty had to give up very little in terms of military concessions. Director Barlow echoes this sentiment, remarking that “it is easy for Denmark and Norway to join this treaty, they don’t have the military responsibility that we do—it is our job, whether they like it or not. These countries complain about us not joining but are very content under the U.S. umbrella of protection that we provide.” Thus, the “pro- and the anti-countries are being divided into those which consider hostilities possible in the future and those that feel secure.” Consequently, critics of the Ottawa Treaty claim that while its goals are laudable, the agreement represents a mere parchment of pacification. These critics argue that the Treaty encourages a “false sense of security” and also that claims that the Ottawa Treaty has reduced landmine injuries are exaggerated.

In addition, the United States argues that it has a legal obligation to protect Korea pursuant to the 1953 Mutual Defense Treaty, and question whether, if landmines are the most effective way to carry out that mission, it is “legal” to give up those weapons. In addition, is it “moral” to give up a weapon that is effective at protecting an ally?

These arguments make a certain amount of sense to Americans because of the special role the U.S. plays in the world. Many title this attitude “exceptionalism” and attribute it to American

231. Safrin, supra note 104, at 1320.
232. Id. at 1320–21 (“These include Russia, India and Pakistan, Israel, Egypt, Syria and Lebanon, the Koreas, Finland, and Iran.”).
233. See id.
234. Barlow Interview, supra note 166.
235. See CROLL, supra note 4, at 151.
236. Id. at 136.
237. See id.
238. SOUTH KOREA, U.S. STATE DEP’T (April 12, 2012) http://www.state.gov/r/pa/ei/bgn/2800.htm (“Under the 1953 U.S.-R.O.K. Mutual Defense Treaty, the United States agreed to help the Republic of Korea defend itself against external aggression. In support of this commitment, the United States has maintained military personnel in Korea, including the Army’s Second Infantry Division and several Air Force tactical squadrons.”).
arrogance. The United States responds that as the world’s only superpower, the United States is “subject to demands and challenges that other countries never face and cannot understand. Because of this the US expects at times to stand apart from the rest of the world.” In fact “[t]his image might actually have a potent unifying function in a country that is increasingly diverse and complex.” Ultimately, though opinions can differ on whether the United States practices exceptionalism, it is undisputable that the United States has unique responsibilities in the world. The question of whether the U.S. needs APLs in Korea or elsewhere is one that cannot be definitively answered because no one can predict the future. However, Americans feel that “if any country has reason to keep these in its arsenal, it must be the U.S. Indeed, any departure from the status quo—in which the US is the world’s only superpower—must be considered very carefully and usually rejected.”

Lastly, some argue that the Ottawa Treaty is largely redundant. Specifically, the Law of War provides the principles of discrimination (only targeting military targets), and proportionality (preventing excessive collectable damage and using too much force). Therefore, the thrust of the Ottawa treaty—to prevent civilian losses to landmines—is superfluous because the body of international law related to discrimination already prevents this. Thus, the United States, which only currently uses these weapons in the Korean DMZ, and which removes mines after a conflict has finished, already meets the Law of War threshold.

V. OTTAWA WITH A TWIST

President Obama has an opportunity not only to change the direction of the United States with respect to landmine law but the world’s view as a whole. Director Barlow stated that while he has no doubt that President Obama “wants to sign the [Ottawa] Treaty, he may resist, [so] as to not look weak to the Russians and Chinese, that he is bending to the will of the peace-nick countries.” However, the United States can maintain a strong security posture in the world’s

240. See generally id.
241. Id. at 32.
242. Id. at 28–30.
243. Id.
244. Id.
245. Barlow Interview, supra note 166.
eyes by leading on this issue and advocating for changes in the Treaty that make it more consistent with its underlying goals.

The first thing that must be changed is the loophole on anti-tampering devices. Specifically, under Article II of the Ottawa Treaty “[m]ines designed to be detonated by the presence, proximity or contact of a vehicle as opposed to a person, that are equipped with anti-handling devices, are not considered anti-personnel mines as a result of being so equipped.” Coupled with the definition of anti-handling devices are devices “intended to protect a mine and which is part of, linked to, attached to, or placed under the mine and which activates when an attempt is made to tamper with or otherwise intentionally disturb the mine.” The Treaty has allowed free reign on APLs so long as they are “designed” to detonate when a vehicle or person disturbs it—by, for example, exerting pressure on it, just like a normal APL. Essentially, this clause allows APLs by labeling them anti-tampering devices. Director Barlow suggested that if the United States wants to comply with the Ottawa Treaty, yet keep the APLs in Korea, it could simply “tweak the mines, attach them to tank mines and call them anti-tampering devices of the tank mine.”

At the same time, the language of Article II allows for any type of proximity mine targeted at vehicles. It appears that the intent of this language was to allow anti-tank mines, which, as discussed above, have more than a tactical importance and provide strategic security. Thus, with the way that the Treaty is drafted, any proximity mine “designed” to attack vehicles would be exempt from the ban. In Iraq, most of the IEDs are “designed” to attack U.S. HMMVWs, yet a pressure IED will explode if a civilian vehicle runs over the pressure tube as well. Thus, the standard should not be what the device is “meant” for, which leaves open a gaping loophole. Rather the test on whether a mine is lawful should be based on what would actually detonate the mine—if it is a tank or an armored troop carrier, then it is legal, but if a civilian truck can set it off, then it is not sufficiently designed as a tank mine. The United States should join the Ottawa Treaty and lead the charge to close the anti-tampering and anti-vehicle loopholes.

246. Ottawa Treaty, supra note 1, at art. 2.
247. Id.
248. Barlow Interview, supra note 166.
249. See id.
VI. CONCLUSION

General Sherman, the man who infamously marched the Union Army through the South and carved a sixty-mile wide swath of destruction, claimed that the use of landmines was “not war, but murder.” Colonel Lambert, a notable British officer, wrote of landmines:

Mine warfare is an unpleasant business. It is foreign to our character to set traps cold bloodedly, or to kill a man a fortnight in arrears so to speak, when you yourself are out of harm’s way; and most . . . soldiers who have experienced it will own a rooted dislike of mine warfare in principle and in practice. There is too, something faintly derogatory about becoming a casualty from a mine; as a weapon of war it lacks the distinction of a shell or bullet. If one has to lose a foot (or one’s life) it seems more respectable somehow for it to be done by a shell rather than a mine.

In Iraq and Afghanistan, modern Americans have now experienced this unpleasant business of mine-warfare; they now understand how these devices are “laid without relish and contemplated with fear.” Not only are APL mines one “of the most insidious weapons ever developed,” the fact that they are in the American arsenal has hurt the national security. The United States has alienated its allies over a weapon that is not effective as a strategic weapon and is only used in one country. Maintaining a stockpile of these weapons has lost the United States a certain amount of moral prestige and credibility as a principled nation. As John McCain said regarding torture, “[i]t’s not about who they are. It’s about who we are.” It should not be about how the enemy is using landmines in Iraq and Afghanistan, but rather, as a people, what standards United States maintains.

250. CROLL, supra note 4, at 18. Sherman, being the pragmatist that he was, eventually saw the benefit of landmines and changed course on the weapon stating, “I now decide the torpedo is justifiable in war in advance of an enemy. But [only] after the adversary has gained the country by fair warlike means. . . .” Id.
251. Id at x.
252. Id.
253. Id at xi.
Unlike the David and Goliath story at the introduction of this article, though in Iraq and Afghanistan the smooth stone may have brought the giant to its knees, it certainly has not slain him. The United States may still use the experiences in these wars to change direction on landmines. Indeed, of the many lessons to take away from Iraq and Afghanistan, one of them should be that as a great nation, sometimes doing what is right—even when it makes winning harder—is the best road, and the United States should disavow the use of APLs and join the Ottawa Treaty. In addition, more than just joining, the United States should lead a movement to fix the Treaty’s shortcomings so that the world can truly begin to realize the goal of becoming landmine free.