

**CRITICAL ANALYSIS OF THE LEGAL REGIME GOVERNING THE USE OF  
WEAPONS DURING INTERNATIONAL ARMED CONFLICT**

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## DECLARATION

I solemnly declare that this dissertation is original work, both in substance and style of **CONSOLATHA PATRICK; LLB/37032/121/DF** alone, except where due acknowledgement is made in the text.

It does not include any materials for which any other university degree or diploma has been awarded

Signature.....CPatrick.....

Date.....9<sup>th</sup> March, 2016.....

## APPROVAL

I certify that, I have supervised and read this study and that in my opinion; it conforms to acceptable standards of scholarly presentation and is fully adequate in scope and quality as a dissertation in partial fulfillment for the award of Degree of Bachelor of Laws of Kampala International University.

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Finally, any errors, mistakes or shortcomings found in this research are entirely mine, for which I assume all responsibility.

## **DEDICATION**

This work is dedicated to my family, mostly my beloved mom Ms. Devota K. Rutayuga for financial support, extreme tolerance, honesty advises and deep understanding, has been invaluable for my studying at Kampala International University. I also dedicate this research to my baby Catherine K. Alfred and her father Alfred Ismail Salehe, my dear father, my brothers Johanness Patrick and Dismas Patrick and my friends Anna Bwere and Amuge Caroline.

## ACRONYM

AP I	Additional Protocol I
AP II	Additional Protocol II
BTWC	Biological and Toxin Weapons Convention
BWC	Biological Weapons Convention
CCW	Certain Conventional Weapons
CDDH	Committee III of the Diplomatic Conference on the Reaffirmation and Development of Humanitarian Law
CWC	Chemical Weapons Convention
ENMOD	Environmental Modification Techniques
EU	European Union
ICC	International Criminal Court
ICJ	International Court of Justice
ICRC	International Committee of the Red Cross
IHL	International humanitarian Law
IHRL	International Human Right Law
LARs	Lethal Autonomous Robots
LOAC	Law of Armed Conflict
LOW	Law of War
NBC	Nuclear, Biological and Chemical Weapons
NGOs	Non-Governmental Organizations
NPT	Nuclear Non Proliferation Treaty
OPWC	Organization for the Prohibition of Chemical Weapons
POW	Prisoners of War
RCWs	Remote Controlled Weapons
RPA	Remote Piloted Aircraft
UAVs	Unmanned Aerial Vehicles
UN	United Nations
US	United States
WMDs	Weapons of Mass Destructions
WWII	Second World War

## LIST OF LEGISLATION AND CONVENTION

Additional Protocol to the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons which may be deemed to be Excessively Injurious or to have Indiscriminate Effects (Protocol IV, entitled Protocol on Blinding Laser Weapons

Convention (IV) respecting the Laws and Customs of War on Land and its annex: Regulations concerning the Laws and Customs of War on Land. The Hague, 18 October 1907.

Convention concerning the Protection of the World Cultural and Natural heritage, 16 November 1972

Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects as amended on 21 December 2001

Convention on the Prohibition of Military or Any Hostile Use of Environmental Modification Techniques, (May 18, 1977) 31 U.S.T. 333, 16 I.L.M. 88 (1977)

Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction (Apr. 10, 1972) 26 U.S.T. 583, 1015 (U.N.T.S. 163)

Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction (Jan. 13, 1993) 32 I.L.M. 800 (1993).

Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction, 18 September 1997

Declaration Prohibiting the Discharge of Projectiles and Explosives from Balloons (Hague XIV) October 18, 1907

Declaration Renouncing the Use, in Time of War, of Explosive Projectiles under 400 Grammes Weight. Saint Petersburg, 29 November / 11 December 1868

Geneva Convention (I) for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field, August 12, 1949

Geneva Convention (II) for the Amelioration of the Condition of Wounded, Sick and Shipwrecked Members of Armed Forces at Sea, August 12, 1949

Geneva Convention (III) Relative to the Treatment of Prisoners of War; August 12, 1949

Geneva Convention (IV) Relative to the Protection of Civilian Persons in Time of War, August 12, 1949

Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict of 14 May 1954

Instructions for the Government of Armies of the United States in the Field (Lieber Code) 24 April 1863

Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), of 8 June 1977

Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of Non-International Armed Conflicts (Protocol II), 8 June 1977

Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare (June 17, 1925) 26 U.S.T. 571, 94 (L.N.T.S. 65.)

Protocol I on Non-Detectable Fragments, annexed to Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May be Deemed to be Excessively Injurious or to Have Indiscriminate Effects (Oct. 10, 1980) U.N. Doc. A/CONF.95/15 (1980), 19 I.L.M. 1523, 1529 (1980)

Protocol IV on Blinding Laser Weapons, annexed to Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May be Deemed to be Excessively Injurious or to Have Indiscriminate Effects (Oct. 13, 1995) 35 I.L.M. 1206, 1218 (1996)

Regulations Concerning the Laws and Customs of War on Land, annexed to Hague Convention (IV) Respecting the Laws and Customs of War on Land, Oct. 18, 1907, T.S. 539.

The Hague Rules of Aerial Warfare (Feb. 19, 1923) 32 Am. J. Int'l L. Supp. 12 (1938) (not in force).

Vienna Convention on the Law of Treaties, Vienna on 23 May 1969



## LIST OF CASES

Prosecutor v. Martić, Case No. IT-95-11-T (ICTY, Trial Chamber), 12 June 2007

Prosecutor v. Galić, Case No. IT-98-29 (ICTY, Trial Chamber), 5 December 2003

Ryuich Shimunda et al. v. The State (1963)

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## CHAPTER ONE

### INTRODUCTION AND BACKGROUND

#### 1:1 INTRODUCTION

It is undisputed fact that, every war or conflict of whatsoever nature within a state (itself) or a state with another state falls within the ambit of international humanitarian law (IHL). The International humanitarian law is a branch of international law, which sets rules that, seek for humanitarian reasons to limit the effects of armed conflict<sup>1</sup>. Further, it is from this set of rules that protection is given to the people and properties that are or may be affected by the conflict, it also limits the conflicting parties to choose methods and means of warfare that are allowed on the eyes of the law<sup>2</sup>.

The means and methods of warfare are certainly said to be limited through laws and rules of armed conflict under the international humanitarian laws, thus, the Geneva and Hague Conventions of 1907 and 1949 respectively. The two laws in question regulate the means and methods of warfare on the application of the same to the international and to the non-international armed conflict.

In this Guide, the terms “weapons, means and methods of warfare” designate the means of warfare and the manner in which they are used. In order to lighten the text, the Guide will use the term “weapons” as shorthand, but the terms “means of warfare”, “methods of warfare”, “means and methods of warfare”, will also be used as the context requires<sup>3</sup>.

Further, among other things it is certain that the term “means and methods of warfare” in this regard can be referred to as a manner in which armed forces in a conflict engaged themselves in a combat<sup>4</sup>. Nonetheless, it is a rule of law and practice that, the international laws are the ones that are obliged to limit the means and methods that are or can be used to wage the war; and the restrictions so forthwith are imposed and applied for all type of weapons that are used, the way

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<sup>1</sup>Rikke, Ishøy, *Handbook on the Practical Use of International Humanitarian Law* (2<sup>nd</sup> Ed Skive: Publisher Danish Red Cross, 2004) p.40

<sup>2</sup> Antoine, Bouvier A, *International Humanitarian Law and the Law of armed conflict*, (2nd Ed Peace Operations Training Institute, Williamsburg, 2012) pp.13, 25

<sup>3</sup> The Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), 8 June 1977 [hereinafter Additional Protocol I] Art. 35(1) and (3), Art. 51(5)(a), Art. 55(1)), Art. 57(2) (a)(ii)), and (Art. 36).

<sup>4</sup>Nigel D. White, Christian Henderson, *Research Handbook on International Conflict and Security Law*(Political Science): (Edward Elgar Publishing, Massachusetts 2013). P. 319

they have been used or the way they will be used and the general conduct of all those engaged in the armed conflict<sup>5</sup>.

Furthermore, it is certainly that, parties to an armed conflict are unlimited on the choice of their means and methods of warfare, they are absolutely unlimited<sup>6</sup>; however, the case that their unlimited, still the parties to armed conflict are obliged not to employ weapons or projectiles that would cause superfluous injuries or unnecessary injuries to the people<sup>7</sup>.

The subject of humanitarian law as on the limitation to the means and methods of warfare, post a concern of international laws that, on any fighting the civilians have to be spared not to suffer the consequence of the war as for the loss of their lives and distraction of their properties as well; and as on the consideration of the same.

## **1:2 BACKGROUND OF THE STUDY**

The right of combatants to choose their means and methods of warfare<sup>8</sup> is not unlimited<sup>9</sup>. This is a basic tenet of international humanitarian law (IHL), also known as the law of armed conflict or the law of war.

IHL consists of the body of rules that apply during armed conflict with the aim of protecting persons who do not, or no longer, participate in the hostilities (e.g. civilians and wounded, sick or captured combatants) and regulating the conduct of hostilities (i.e. the means and methods of warfare). IHL sets limits on armed violence in wartime in order to prevent, or at least reduce, suffering. It is based on norms as ancient as war itself, rooted in the traditions of all societies. The rules of IHL have been developed and codified over the last 150 years in international treaties,

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<sup>5</sup>ICRC (29-10-2010), "Methods and means of warfare." ICRC: last updated July 18, 2013

<<http://www.icrc.org/eng/war-and-law/conduct-hostilities/methods-means-warfare/overview-methods-andmeans-of-warfare.htm>> Accessed on 15/11/2015

<sup>6</sup>The Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), 8 June 1977 Article 35 (1)

<sup>7</sup>The Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), 8 June 1977 [hereinafter Additional Protocol I] Article 35 (2)

<sup>8</sup> The Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), 8 June 1977 [ hereinafter Additional Protocol I] (Art. 35(1) and (3), Art. 51(5)(a), Art. 55(1)), (Art. 57(2)(a)(ii) and Art. 36

<sup>9</sup>Convention (IV) respecting the Laws and Customs of War on Land and its annex: Regulations concerning the Laws and Customs of War on Land. The Hague, 18 October 1907 Article 22 of the 1907 and The Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), 8 June 1977 [ hereinafter Additional Protocol I] Article 35(1)

notably the 1949 Geneva Conventions and their Additional Protocols of 1977, complemented by a number of other treaties dealing with specific matters such as cultural property, child soldiers, international criminal justice, and use of certain weapons. Many of the rules of IHL are also considered part of customary international law based on widespread, representative and virtually uniform practice of States accepted as legal obligation and therefore mandatory for all parties to an armed conflict.

The combatants' right to choose their means and methods of warfare is limited by a number of basic IHL rules regarding the conduct of hostilities, many of which are found in Additional Protocol I of 1977 on the protection of victims of international armed conflicts<sup>10</sup>. Other treaties prohibit or restrict the use of specific weapons such as biological and chemical weapons, incendiary weapons, blinding laser weapons and landmines, among others. In addition, many of the basic rules and specific prohibitions and restrictions on means and methods of warfare may be found in customary international law<sup>11</sup>.

Reviewing the legality of new weapons, means and methods of warfare is not a novel concept. The first international instrument to refer to the legal assessment of emerging military technologies was the St Petersburg Declaration, adopted in 1868 by an International Military Commission. The Declaration addresses the development of future weapons in these terms: "The Contracting or Acceding Parties reserve to themselves to come hereafter to an understanding whenever a precise proposition shall be drawn up in view of future improvements which science may effect in the armament of troops, in order to maintain the principles which they have established, and to conciliate the necessities of war with the laws of humanity"<sup>12</sup>.

The only other reference in international treaties to the need to carry out legal reviews of new weapons, means and methods of warfare is found in Article 36 of Additional Protocol I of 1977:

In the study, development, acquisition or adoption of a new weapon, means or method of warfare, a High Contracting Party is under an obligation to determine whether its employment would, in

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<sup>10</sup>The Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), 8 June 1977 [ hereinafter Additional Protocol I] See in particular Part III, Section I, and Part IV, Section I, Chapters I to IV.

<sup>11</sup>ICRC, Customary Rules of International Humanitarian Law, 2005. Rule 70-86.

<sup>12</sup>Declaration Renouncing the Use, in Time of War, of Explosive Projectiles under 400 Grammes Weight, St Petersburg, 29 November / 11 December 1868. The full text of the St Petersburg Declaration is reproduced in Annex II of this Guide.

some or all circumstances, be prohibited by this Protocol or by any other rule of international law applicable to the High Contracting Party.

The aim of Article 36 is to prevent the use of weapons that would violate international law in all circumstances and to impose restrictions on the use of weapons that would violate international law in some circumstances, by determining their lawfulness before they are developed, acquired or otherwise incorporated into a State's arsenal.

The requirement that the legality of all new weapons, means and methods of warfare be systematically assessed is arguably one that applies to all States, regardless of whether or not they are party to Additional Protocol I. It flows logically from the truism that States are prohibited from using illegal weapons, means and methods of warfare or from using weapons, means and methods of warfare in an illegal manner. The faithful and responsible application of its international law obligations would require a State to ensure that the new weapons, means and methods of warfare it develops or acquires will not violate these obligations<sup>13</sup>. Carrying out legal reviews of new weapons is of particular importance today in light of the rapid development of new weapons technologies.

In the advancement of weaponry, the international community has struggled to promulgate standards of conduct in a timely manner that carries nearly universal support and adherence. For instance on the heels of the first use of poison gas during World War I came the 1925 Geneva Gas Protocol, regulating the use of gas and "bacteriological" warfare<sup>14</sup>. However, the Hague Rules of Aerial Warfare, crafted in the aftermath of the first use of aircraft in armed conflict, is a dead letter<sup>15</sup>. It took nearly fifty years to formulate a total ban on biological weapons in the form of the 1972 Biological Weapons Convention<sup>16</sup> and an additional twenty years to devise a comprehensive treaty outlawing the use of chemical weapons with the passage of the 1993 Chemical Weapons Convention.<sup>17</sup> On the other hand, some rules of warfare have been rather ahead of their time, such

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<sup>13</sup>See for example the practice of Sweden and the United States, which established formal weapons review mechanisms as early as 1974, three years before the adoption of Additional Protocol I.

<sup>14</sup> Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare (June 17, 1925) 26 U.S.T. 571, 94 (L.N.T.S. 65.)

<sup>15</sup>The Hague Rules of Aerial Warfare (Feb. 19, 1923) 32 Am. J. Int'l L. Supp. 12 (1938) (not in force).

<sup>16</sup> Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction (Apr. 10, 1972) 26 U.S.T. 583, 1015 (U.N.T.S. 163)

<sup>17</sup> Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction (Jan. 13, 1993) 32 I.L.M. 800 (1993).



as the treaty banning the use of environmental modification techniques in warfare,<sup>18</sup> the protocol banning weapons whose fragments cannot be detected by X-ray,<sup>19</sup> and the protocol banning the use of blinding lasers.<sup>20</sup>

### 1:3 STATEMENT OF PROBLEM

Considering that, various rules, laws and conventions that deal with armed conflict were adopted or created to enable the conflicting parties to adhere and embrace the same, it is the rule of law and general practice that, the state's obligations to adhere and embrace International law whether it be Treaty, Convention, Charter, Protocol and so forth, comes along soon after signing and ratifying the said treaty. The binding nature of International law can certainly understood to be consensual and contractual in nature; thus the same can be projected through the operation of the Latin maxim *Pacta sunt servanda*. The maxim in question has been translated following the provision of Article 26 of the Vienna Convention on the Law of Treaties, 1969 – which provides the same by stating that, “Every treaty in force is binding upon the parties to it and must be performed by them in a good faith”.<sup>21</sup>

However, due to the technological advancement on military means and methods of warfare some rules, laws, and humanitarian principles have been seen to be violated following the application of the new military means and methods of warfare. The Application of Article 35 of Additional Protocol I, states clearly that parties are under the obligation to embrace the laws of war especially when employing new weapons, means and methods of warfare in a conflict with a purpose not to cause superfluous injury or unnecessary suffering or not to cause widespread, long-term and severe damage to the natural environment. However, this is not the case, the World has witnessed different introduction and employment of violate weapons which basically breach or breaches the

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<sup>18</sup> Convention on the Prohibition of Military or Any Hostile Use of Environmental Modification Techniques, (May 18, 1977) 31 U.S.T. 333, 16 I.L.M. 88 (1977)

<sup>19</sup> Protocol I on Non-Detectable Fragments, annexed to Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May be Deemed to be Excessively Injurious or to Have Indiscriminate Effects (Oct. 10, 1980) U.N. Doc. A/CONF.95/15 (1980), 19 I.L.M. 1523, 1529 (1980)

<sup>20</sup> Protocol IV on Blinding Laser Weapons, annexed to Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May be Deemed to be Excessively Injurious or to Have Indiscriminate Effects (Oct. 13, 1995) 35 I.L.M. 1206, 1218 (1996)

<sup>21</sup> Harold Hongju Koh, *Why Do Nations Obey International Law?* Yale Law School Legal Scholarship Repository, The Yale Journal Vol. 106:2599, (January 1997), p.2599 - 2601 <[http://digitalcommons.law.yale.edu/cgi/viewcontent.cgi?article=2897&context=fss\\_papers](http://digitalcommons.law.yale.edu/cgi/viewcontent.cgi?article=2897&context=fss_papers)> (Accessed on 15/11/2015)

laws of armed conflict; and this may include an Automated military weapons and Remote controlled weapons, Chemical and Biological weapons and so forth.

It is quite clear that, anticipating the future by advocating for the development and technology leads to the adherence and observation of the true nature of the society being changing from time to time. It can be noted that, it is not quite true that every changes in the society comes for good, simply because there are other changes drastically not helpful and useful for the wellbeing of the society policies, to changes into the laws of war and rules of engagement, to international treaties or agreements, or to a variety of other “soft law” governance mechanisms<sup>22</sup>.

#### **1:4 OBJECTIVES OF THE STUDY**

The overall purpose of the study is to critically analyzing the legal regime that governs the use of weapons during an armed conflict by:

- Examining the scope and the nature of the use of certain weapons during an armed conflict
- Discussing the practice relating to the use of certain weapons and the measures reducing the danger caused by the use of such certain weapons. and
- Identifying the challenges that IHL faces on the use of certain weapons

#### **1:5 RESEARCH QUESTIONS.**

1. What is the basic scope and the nature of the use of certain weapons during an armed conflict?
2. What is the general practice relating to the use of certain weapons and proper measures to consider on reducing the danger caused by such weapons?
3. What are challenges IHL faces on the use of certain weapons?

#### **1:6 METHODOLOGY OF RESEARCH**

The research is basically a theoretical study. This research relies on primary and secondary data. They include books, articles, ICRC website, reports by non-Governmental Organization (NGO's)

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<sup>22</sup>Marchant, Gary, E. Allenby, B. Arkin, R. *International Governance of Autonomous military Robots, Science and Technology Law Review* (Columbia, 2011) pp. 314-315

such as text books on International Humanitarian Law and other materials written on the subject; the use of means and methods of warfare during an armed conflict whether of international nature or non-international nature.

### 1:7 SCOPE OF THE STUDY.

The study will be approached from different legal perspective. In this regard, it will consider the extent under which International Humanitarian Laws govern the use of means and methods of warfare during an armed conflict of either nature; international or non-international.

The study focuses on the use and general practice of certain weapons, proper measures to consider in order to reduce the danger caused by the use of weapons and the challenges that IHL faces on enforcing the same.

### 1:8 LITERATURE REVIEW

There is a lot of literature on the subject of the use of certain weapons during an armed conflict. This research will attempt to examine the general scope and the nature of the use of certain weapons during armed conflict, the principle and applicability of those weapons and how IHL do face some challenges on the use of certain weapons.

According to **William Boothby**<sup>23</sup>, the law concerning the means of warfare (i.e. weapons or weapon system in armed conflict) is arguably one of the most important areas of Ius in bello. He makes the point that ‘consideration of the law of weaponry must...be set against the background of the law that regulates how those weapons may be used... for example the protection of the civilian population in an armed conflict and the issue of indiscriminate attacks.

**YoramDinstein**<sup>24</sup> further stated that it becomes clear that the regulation of the use of weapons in an armed conflict cannot really be expected to rest on the general prohibition of the causing superfluous injuries or unnecessary suffering<sup>25</sup>. The only reliable way to outlaw the use of certain

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<sup>23</sup> William Boothby: *Weapons and the law of armed conflict* ( Oxford University Press, 2009).pp41,43-44

<sup>24</sup>YoramDinstein: Means and Methods of warfare, in Max-Planck Encyclopedia of Public International Law’ (2009)<<https://www.diaonia.se/en/IHL/The-Law/International-Humanitarian-Law/issues-addressed-by-IHL/conduct-of-hostilities/weapons/>>(accessed on 15/11/2015)

<sup>25</sup>Protocol Additional to the Geneva Conventions of 12 August 1949, and Relating to the Protection of Victims of Non-International Armed Conflicts (Protocol II), 8 June 1977 Article 35 and The Customary Rules of International Humanitarian Law,2005 Rue 70

weapons is their ban by obtaining the consent of states to stigmatize a specific weapon by way of a multilateral convention. .

**In 1999, the 27<sup>th</sup> International Conference of the Red Cross and Red Crescent** encouraged States “to establish mechanisms and procedures to determine whether the use of weapons, whether held in their inventories or being procured or developed, would conform to the obligations binding on them under international humanitarian law.” It also encouraged States “to promote, wherever possible, exchange of information and transparency in relation to these mechanisms, procedures and evaluations<sup>26</sup>.

At the **Second Review Conference of the Convention on Certain Conventional Weapons (CCW) in 2001**, the States Parties urged “States which do not already do so, to conduct reviews such as that provided for in Article 36 of Protocol I additional to the 1949 Geneva Conventions, to determine whether any new weapon, means or methods of warfare would be prohibited by international humanitarian law or other rules of international law applicable to them”.<sup>27</sup>

**In December 2003, the 28<sup>th</sup> International Conference of the Red Cross and Red Crescent** reaffirmed by consensus the goal of ensuring “the legality of new weapons under international law,” this “in light of the rapid developments of weapons technology and in order to protect civilians from the indiscriminate effects of weapons and combatants from unnecessary suffering and prohibited weapons”.<sup>28</sup> The Conference stated that all new weapons, means and methods of warfare “should be subject to rigorous and multidisciplinary review”, and in particular that such review “should involve a multidisciplinary approach, including military, legal, environmental and health-related considerations.”<sup>29</sup> The Conference also encouraged States “to review with particular scrutiny all new weapons, means and methods of warfare that cause health effects with which medical personnel are unfamiliar.”<sup>30</sup> Finally, the Conference invited States that have review

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<sup>26</sup>International Conference of the Red Cross and Red Crescent, Geneva, 31 October to 6 November 1999 (adopted by 27<sup>th</sup> 2000-2003) Section 21

<sup>27</sup>Final Declaration of the Second Review Conference of the States Parties to the Convention on Certain Conventional Weapons, Geneva(11-21 December 2001) CCW/CONF.II/2, at p. 11. <http://disarmament.un.org:8080/ccw/ccwmeetings.html>. (accessed on 15/11/2015)

<sup>28</sup>The Agenda for Humanitarian Action adopted by the 28<sup>th</sup> International Conference of the Red Cross and Red Crescent, Geneva, 2-6 December 2003 [hereinafter Agenda for Humanitarian Action].

<sup>29</sup> See Belgium, Law on Archives, 24 June 1955.

<sup>30</sup> In the US, the majority of review reports are unclassified and accessible to the public pursuant to the Freedom of Information Act: see H. Parks, note 17 above. In Sweden, the reports of the Delegation are subject to the Freedom of the Press Act: see Danish Red Cross, note 8 above, at p. 28 and I. Daoust et al., id. At p. 355. See also Belgium, Law of 11 April 1994 regarding publicity of the Administration, and Australia, Freedom of Information Act 1982.

procedures in place to cooperate with the ICRC with a view to facilitating the voluntary exchange of experience on review procedures.<sup>31</sup>

**Jann K. Kleffner in Bruges Colloquium – ICRC (October 2010)**<sup>32</sup>, identifies various challenges that have been addressed based on the legal regulation of means and methods of warfare. Among the challenges identified are: first, the conceptual challenge of what is meant by “means of warfare or weapons”, and secondly is the regulation in the law of armed conflict of effects of weapons that may only materialize after a considerable lapses.

**Dr. Nils Melzer (2013)**<sup>33</sup>, certainly the author further stated clearly that on recent years drones and unmanned robots in warfare have been increasingly used; and states are now invest significantly to develop the same by increase their operations in various situations including violence. However, among other things the author stressed out that the said technologies need to be revisited and managed under framework of the law. He further recommend that international dialogues have to be conducted, legal standards on the use of the unmanned robots and drones has to be certain, furthermore, international consensus in EU and in other international legal framework needs to be adopted in order to restrict the development, proliferation or use of certain unmanned weapons in line with the legal achieved.

## 1:9 SYNOPSIS OF CHAPTERS

This research paper comprises of the five chapters

Chapter one will discuss the general introduction and the background of the research topic.

Chapter two will discuss the scope and the nature of the use of weapons during armed conflict.

Chapter three will cover the general principle and applicability of certain weapons.

Chapter four will discuss IHL challenges on the use of certain weapons.

Chapter five will comprise of the recommendation and the conclusion.

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<sup>31</sup> The Agenda for Humanitarian Action adopted by the 28<sup>th</sup> International Conference of the Red Cross and Red Crescent, Geneva, 2–6 December 2003 [hereinafter Agenda for Humanitarian Action].

<sup>32</sup> Technological challenges for the Humanitarian Legal framework., New Technology on the Battlefield, Current challenges to the Legal Regulation of means of warfare  
<[https://www.coleurope.eu/sites/default/files/uploads/page/collegium\\_41\\_0.pdf](https://www.coleurope.eu/sites/default/files/uploads/page/collegium_41_0.pdf)> Accessed on 15/11/2015

<sup>33</sup> European Parliament – Policy Department, Directorate-General for External Policies of the Union. Human Rights implications of the usage of Drone and Unmanned Robots in warfare  
<[http://www.europarl.europa.eu/RegData/etudes/etudes/join/2013/410220/EXPODROI\\_ET\(2013\)410220\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/etudes/join/2013/410220/EXPODROI_ET(2013)410220_EN.pdf)>  
Accessed on 15/11/2015

## **1:10 CONCLUSION**

International humanitarian law is kind of the law which purposely came along to protect human lives and limit means and methods of warfare that can be used in armed conflict; and thus in considering to the aim of the law in question the rules and principles of humanitarian law are called into play so as to ensure that the said goal is reached without compromise of the same. Therefore, it is quite clear that, parties to an armed conflict are required to employ means and methods of warfare that are reasonable and proportional to another adverse party's means and methods of warfare in consideration of human lives, properties and preservation of environment as on the avoidance to cause a widespread and a long-term consequences of the war on the land.

## CHAPTER TWO

### THE SCOPE AND NATURE OF THE USE OF WEAPONS DURING ARMED CONFLICT

#### 2:1 INTRODUCTION

It is a point of concern that, under international humanitarian law – the important rule governs the parties in an armed conflict is that, whoever engages in hostility is expected to adopt such means and methods of warfare which are recognized under the laws of war (IHL)<sup>34</sup>

The law of war however, is designed to cover the conduct of military and their military operations by stating what weapons and military tactics can be used in armed conflict; and further by limiting the means and methods of warfare.

#### 2:2 DEFINITION OF WEAPON

A legal regime governing the use of certain weapons must first define the weapons in order to have practical application. In the absence of such a definition, defensive or counter-offensive attacks on certain weapons would be indiscriminate, a situation that any legal regime on warfare seeks to avoid.

The U.S. Air Force, which is the lead agency for information warfare within the U.S. Department of Defense, defines the term “weapon” as a “device designed to kill, injure, or disable people, or to damage or destroy property”.<sup>35</sup>

The term “means and methods of warfare” can simply mean a manner in which armed forces in a conflict engage themselves in a combat<sup>36</sup>. Also it is clear that, the term in question includes weapons in the widest sense of the way in which they are used<sup>37</sup>. Nevertheless, the term in question is a combination of two words (“means” and “method”), adversely – the terms in particular can

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<sup>34</sup> Nur Muhammad, Azami . *Means and Methods of Warfare: A Brief Study under International Humanitarian Law*. ASA University Review, (Vol. 5 No. 2, July–December, 2011) p. 1

<sup>35</sup> Air Force Instruction 51-402, *Weapons Review*, para. 1 (May 13, 1994), available at <http://www.epublishing.af.mil/pub<sup>a</sup>les/af/51/a<sup>a</sup>51-402/a<sup>a</sup>51-402.pdf> (Accessed on 17/11/2015).

<sup>36</sup> < [http://www.asser.nl/default.aspx?site\\_id=9&level1=13336&level2=13374&level3=13460](http://www.asser.nl/default.aspx?site_id=9&level1=13336&level2=13374&level3=13460) > Accessed on 17/11/2015

<sup>37</sup> Kathleen, Lawand. *A Guide to the Legal Review of New Weapons, Means and Methods of Warfare*. (ICRC Revised – November 2006) Geneva. p. 14

independently treated to mean; “means”<sup>38</sup> - refers to weapons, as well as weapons launch and delivery system on the attack; and “weapons” generally under this context refers to such things like Arms, Munitions, Projectiles and Material (such as Chemicals in chemical weapons and Biological weapons); and also the term “method” refers to mean tactics, such as starvation, or to the way(s) in which weapons can be used<sup>39</sup>.

Before assessing the legality of weapon, means and methods of warfare – it has to be understood that all these three (“weapons”, “means” and “methods” of war fare) have to be treated as one.

The term “means and methods” of warfare are conflated with the “weapon” itself and thus treating them together will enable to achieve what the provision of Article 36<sup>40</sup> projects.

*Kathleen Lawand* comment on this by saying that:

“A new weapon – that is, a proposed means of warfare, cannot be examined in isolation from the way in which it is to be used that is, without also taking into account the method of warfare associated with it”<sup>41</sup>

Also, *Justin McClelland* usefully suggest that, the terms in question should be read together in order to include those items of equipment which, whilst they do not constitute a weapon as such, nonetheless have a direct impact on the offensive capability of the force to which they belong<sup>42</sup>.

## 2:2:1 THE HISTORY OF THE LAW OF ARMED CONFLICT

“In times of war, the law falls silent.”<sup>43</sup>Historically, the applicability of the Law of Armed Conflict often depended upon a State subjectively classifying a conflict as a “war.” Recognition of a state of

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<sup>38</sup>Means refers to an action, an object or system by which a result is achieved or is a way of achieving or doing something. Wehmeier, Sally. *Oxford Advanced Learner's Dictionary 7th Edition*: Oxford University Press – Oxford New York 2006. p. 914

<sup>39</sup>Isabelle, Daoust, Robin, Coupland, and Rikke, Ishoey. New wars, new weapons? *The obligation of states to assess the legality of means and methods of warfare*. International Review of the Red Cross, (Vol. 84, No. 846, 2002), p. 352 <,method means a particular way of doing something and the quality of being planned and organized. Wehmeier, Sally. *Oxford Advanced Learner's Dictionary (7th Ed)*. Oxford University Press – Oxford New York, 2006. p. 925 >

<sup>40</sup>The Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), 8 June 1977 [ hereinafter Additional Protocol I]

<sup>41</sup>Kathleen, Lawand. *Reviewing the legality of new weapons, means and methods of warfare*. International Review of the Red Cross, Vol. 88, No. 864, 2006) p. 927

<sup>42</sup>Justin McClelland. *The review of weapons in accordance with Article 36 of Additional Protocol I*. International Review of the Red Cross, (Vol. 85, No. 850, 2003), p. 404

<sup>43</sup>This Latin maxim (“Silent enim leges inter arma”) is generally attributable to Cicero, the famous Roman philosopher and politician (106 – 43 BC). Justice Scalia wrote in his dissent in *Hamdi v. Rumsfeld*, 542 U.S. 507 (2004), “Many think it not only inevitable but entirely proper that liberty give way to security in times of national crisis that, at the extremes of military exigency, *inter arma silent leges*. Whatever the general merits of the view that



war is no longer required to trigger the Law of armed Conflict. After the 1949 Geneva Conventions, the Law of Armed Conflict is now triggered by the existence of “armed conflict” between States.

The Law of armed conflict is the “customary and treaty law applicable to the conduct of warfare on land and to relationships between belligerents and neutral States.”<sup>44</sup> It “requires that belligerents refrain from employing any kind or degree of violence which is not actually necessary for military purposes and that they conduct hostilities with regard for the principles of humanity and chivalry.” The law of armed conflict is also referred to as the law of war (LOW) or international humanitarian law (IHL).<sup>45</sup>

Law exists to either prevent conduct or control conduct. These characteristics permeate the Law of Armed Conflict (LOAC), as exemplified by its two major prongs. *Jus ad Bellum* serves to regulate the conduct of going to war, while *Jus in Bello* serves to regulate conduct within war.

Although critics of the regulation of warfare cite examples of violations of evolving laws of war, a comprehensive view of history provides the greatest evidence of the overall validity of this body of law.

History shows that in most cases the LOAC works. Despite the fact that the rules are often violated or ignored, it is clear that mankind is better off with than without them. Mankind has always sought to limit the effect of conflict on combatants and has come to regard war not as a state of anarchy justifying infliction of unlimited suffering, but as an unfortunate reality which must be governed by some rule of law. This point is illustrated in Article 22 of the 1907 Hague Regulations: “the right of belligerents to adopt means of injuring the enemy is not unlimited.” This rule does not lose its binding force in a case of necessity.

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war silences law or modulates its voice, that view has no place in the interpretation and application of a Constitution designed precisely to confront war and, in a manner that accords with democratic principles, to accommodate it. GC I Commentary at 32.

<sup>44</sup>WILLIAM MANCHESTER, A AMERICAN CAESAR: DOUGLAS MACARTHUR 1880-1964 488 (1978) (quoting DOUGLAS MACARTHUR, REMINISCENCES 295-96 (1964)). DEPT OF THE ARMY, FIELD MANUAL 27-10, THE LAW OF LAND WARFARE (July 1956). At para. 1. *Id.* at para. 3.

<sup>45</sup>The moniker describing this body of law has changed over time. Before the 1949 Geneva Conventions, it was known universally as the “Law of War.” The 1949 Geneva Conventions advanced a change to the term “Law of Armed Conflict” to emphasize that the application of the law and prescriptions did not depend on either a formal declaration of war or recognition by the parties of a state of war. Of late, many scholars and nongovernmental organizations refer to this body of law as “International Humanitarian Law” (IHL). Regulations Concerning the Laws and Customs of War on Land, annexed to Hague Convention (IV) Respecting the Laws and Customs of War on Land, Oct. 18, 1907, T.S. 539. Art. 22.

Regulating the conduct of warfare is ironically essential to the preservation of a civilized world. General MacArthur exemplified this notion when he confirmed the death sentence for Japanese General Yamashita, writing: “The soldier, be he friend or foe, is charged with the protection of the weak and unarmed. It is the very essence and reason of his being. When he violates this sacred trust, he not only profanes his entire cult but threatens the fabric of international society.”<sup>46</sup>

The LOAC has two major prongs: *Jus ad Bellum* and *Jus in Bello*, and one less developed prong, *Jus post Bellum*.

- *Jus ad Bellum* is the law dealing with conflict management, and how States initiate armed conflict (i.e., under what circumstances the use of military power is legally and morally justified).
- *Jus in Bello* is the law governing the actions of States once conflict has started (i.e., what legal and moral restraints apply to the conduct of waging war).

Both *Jus ad Bellum* and *Jus in Bello* have developed over time, drawing most of their guiding principles from history. The concepts of *Jus ad Bellum* and *Jus in Bello* developed both unevenly and concurrently. For example, during the majority of the *Jus ad Bellum* period, most societies only dealt with rules concerning the legitimacy of using force. Once the conditions were present that justified war, there were often no limits on the methods used to wage war. Eventually, both theories began to evolve together.

- *Jus post Bellum* is the third, largely historically neglected prong of the Just War Tradition, that focuses on the issues regulating the end of warfare and the return from war to peace (i.e., what a just peace should look like).

“Wars happen. It is not *necessary* that war will continue to be viewed as an instrument of national policy, but it is likely to be the case for a very long time. Those who believe in the progress and perfectibility of human nature may continue to hope that at some future point reason will prevail and all international disputes will be resolved by nonviolent means . . . Unless and until that occurs, our best thinkers must continue to pursue the moral issues related to war. Those who romanticize

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<sup>46</sup>WILLIAM MANCHESTER, *AMERICAN CAESAR: DOUGLAS MACARTHUR 1880-1964* 488 (1978) (quoting DOUGLAS MACARTHUR, *REMINISCENCES* 295-96 (1964)). DEP'T OF THE ARMY, *FIELD MANUAL 27-10, THE LAW OF LAND WARFARE* (July 1956). At para. 2.

war do not do mankind a service; those who ignore it abdicate responsibility for the future of mankind, a responsibility we all share even if we do not choose to do so.”<sup>47</sup>

## 2:2:2 THE RULES AND LAWS APPLICABLE TO THE USE OF WEAPONS

With regard to the development of science and technology, it is undisputed fact that nothing will be safe, thus to say – everything on every aspect will be affected positively or negatively by the developed trend of advanced science and technology of today. Nonetheless, in whatsoever the affect will arise from, it is a concern of international humanitarian law (laws of war) especially on means and methods of warfare to revisit the law and practice hand in hand with the (current) advanced means and methods of warfare.

Therefore, under this chapter – the discussion will basically focus on the legal framework of international humanitarian law especially on limitation of means and methods of warfare for the purpose of exploring the law as to how the same project and address the question of adopting new technological means and methods of warfare. The following are the laws that will be discussed extensively following the question at hand; these include the following:

### **Instructions for the Government of Armies of the United States in the Field (Lieber Code). 24 April 1863**

Lieber code (1863) is the first military order that codify the laws of war<sup>48</sup>; it set out the rights, obligations, and prohibitions and permitted conducts of the armed forces during an armed conflict. The code used to gather the customs of war and usage of laws of war into one document. The document was prepared by Dr. Francis Lieber<sup>49</sup> who was commissioned to draft the same by the President Abraham Lincoln<sup>50</sup>, in which the code later became to be known as Order No. 100 which was incorporated into the Union Army’s General Orders (1863), it was codified into 157 Articles<sup>51</sup>. Among other things the code in question was prepared during the American Civil War or Civil

<sup>47</sup>Malham M. Wakin, *Introduction to War and Morality, in WAR, MORALITY, AND THE MILITARY PROFESSION* 224 (Malham M. Wakin ed., 2nd rev. ed. 1986).

<sup>48</sup>[http://www.asser.nl/default.aspx?site\\_id=9&level1=13336&level2=13374&level3=13460](http://www.asser.nl/default.aspx?site_id=9&level1=13336&level2=13374&level3=13460) Accessed on 17/11/2015

<sup>49</sup>Francis, Lieber. also known as Franz Lieber ( March 1798 – October 1872) ≤ [http://www.loc.gov/rr/frd/Military\\_Law/Lieber\\_Collection/pdf/francisbio-more.pdf](http://www.loc.gov/rr/frd/Military_Law/Lieber_Collection/pdf/francisbio-more.pdf) Accessed on 17/11/2015

<sup>50</sup>The 16th President of the United States of America (March 4, 1861 – April 15, 1865)

<sup>51</sup>The Lieber Code: Limiting the Devastation of war  
<[http://www.redcross.org/images/MEDIA\\_CustomProductCatalog/m16240360\\_Lieber\\_Code\\_lesson.pdf](http://www.redcross.org/images/MEDIA_CustomProductCatalog/m16240360_Lieber_Code_lesson.pdf)>  
<<http://www.icrc.org/ihl/INTRO/110?OpenDocument>> Accessed on 17/11/2015

War of 1861 to 1865. Further it is certain that, with the adoption and codification of the code in particular the same influenced other states to adopt the Code in which consequentially it helped the formation of an International Convention(s) on the laws of war that was presented on the Brussels Conference of 1874<sup>52</sup> and enabled the adoption of the Hague Conventions of 1899 and 1907<sup>52</sup>.

### **Objectives**

The Lieber Code<sup>53</sup> was designed purposely to regulate the conduct of combatants behavior, to protect lives of the ones who engage themselves in an armed conflict and also to maintain dignity of people in the armed conflict. Further, among other things the specific objectives of the Code are as follows:

- To understand some reasons as to why rules are needed in an armed conflict
- To learn and understand some of the basic rules of IHL as to how they emerged during the Civil War

Therefore, considering to the focus of the subject at hand, it is a matter of concern that the Lieber Code has also played the key role on limiting the means and methods of warfare by settling up restriction on the choice of methods that would not course unnecessarily sufferings to the people who are taking part in hostilities and who are not taking part of the same<sup>54</sup>

### **Declaration Renouncing the Use, in Time of War, of Explosive Projectiles under 400 Grammes Weight. Saint Petersburg, 29 November / 11 December 1868**

#### **Background**

It is an international treaty agreed in Saint Petersburg, Russian Empire, November 29/December 11, 1968. It succeeded the First Geneva Convention of 1864. It was a predecessor of the well-known Hague Convention of 1899 and 1907. It was signed by the members of the International Military Commission convened for this purpose in the presence of the Imperial Cabinet of Russia.

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<sup>52</sup>The Conference was held on August 27, 1874 purposely for an examination and codification of the drafts of the International agreement of customs and laws of war. The project led to the adoption of Brussels declaration and an Oxford Manual which basically lead to the formation of two Hague Conventions on Land warfare and Regulations annexed to them that was adopted in 1899 and 1907. <<http://www.icrc.org/ihl/INTRO/135>> Accessed on 17/11/2015

<sup>53</sup>24 April 1863

<sup>54</sup>Article 16 and 70 bans the use of poisons as the method and means of waging the war. The Instructions for the Government of Armies of the United States in the Field (Lieber Code). 24 April 1863

In 1863, the Russian Army had perfected a fulminating musketball that could explode when it hit a hard target and was designed to blow up powder magazine or ammunition wagons. In 1867, they perfected an improved explosive musketball that would detonate on any impact after being fired, even soft targets like people or animals. Predicting the disastrous effect of such a discovery on diplomatic relations with their neighbors, Russia decided to negotiate a ban on the development, creation, and use of such weapons before a grisly arms race commenced<sup>55</sup>.

### Scope

The purpose of considering the existing rules of war, a conference of delegates met at Saint Petersburg to affirm that the only legitimate object of war should be to weaken the military force of the enemy, which could be sufficiently accomplished by the employment of highly destructive weapons. With that fact established, the delegates agreed to prohibit the use of less deadly explosive that might merely injure the combatants and thereby create prolonged suffering of such combatants.

The influence of this declaration on international humanitarian law were elucidated in **Ryuichi Shimoda et al. v. The State**<sup>56</sup>.

### The Hague Conventions of 1899<sup>57</sup> and 1907<sup>58</sup>

#### Background

These are the series of international instruments (treaties) in international humanitarian laws that emerged from two international peace conferences held at The Hague and Netherlands in 1899 and 1907 respectively<sup>59</sup>. The Hague Conventions in question are the first formal statements especially in the laws of war and war crimes in the international law which basically, however, partly the content of the same based on the Lieber Code of April 24, 1863<sup>60</sup>

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<sup>55</sup>Stuart Maslen, *Anti-Personnel Mines under Humanitarian Law: a view from the vanishing point*, p12 Intersentia nv, 2001.

<sup>56</sup>Shimoda Ryuichi Shimoda et al. v. The State (1963). Section: Evaluation of the act of bombing according to International law; <[http://en.m.wikipedia.org/wiki/International\\_Committee\\_of\\_the\\_Red\\_Cross](http://en.m.wikipedia.org/wiki/International_Committee_of_the_Red_Cross)>

<sup>57</sup>Convention (II) with Respect to the Laws and Customs of War on Land and its annex: Regulations concerning the Laws and Customs of War on Land. The Hague, 29 July 1899

<sup>58</sup>Convention (IV) respecting the Laws and Customs of War on Land and its annex: Regulations concerning the Laws and Customs of War on Land. The Hague, 18 October 1907

<sup>59</sup><http://www.britannica.com/EBchecked/topic/251644/Hague-Convention><<http://www.cfr.org/international-law/hague-conventions-1899-1907/p9597>> accessed on 17/11/2015

<sup>60</sup>Harvard International Law Journal. *International Law as American History* (Vol. 54, May 2013) <<http://www.harvardilj.org/wp-content/uploads/2013/05/Basile-to-publish.pdf>>

The two conventions were initiated from the two conferences which include negotiations concerning disarmament and the laws of war and war crimes. The conferences in particular led to the creation of the binding international court for compulsory arbitration purposely for settling International disputes.

### **Objectives**

It is certain that, each of the Hague peace conferences and conventions had their own objectives; and the objectives of the same are as follows:

- The conference of 1899 though failed to achieve its primary objective but did adopt convention defining the condition of the state of belligerency and other customs relating to war on land and sea. Further, three declarations were accepted-one prohibiting the use of asphyxiating gases, another prohibiting the use of expanding bullets (dumdums), and another prohibiting the discharge of projectiles or explosive from balloons. Last, and, most important, was the adoption of the Convention for the Pacific Settlement of International Disputes, creating the Permanent Court of Arbitration.
- The conference of 1907 did, however, adopt the several conventions relating to such matters as the employment of force for the recovery of contract debts; the rights and duties of neutral powers and persons in war on land and sea; the laying of automatic submarine contact mines; the status of enemy merchant ships; bombardment by naval forces in wartime; and the establishment of an international court.

Further the conference renewed the declaration prohibiting the discharge of projectiles from balloons but did not reaffirm the declarations prohibiting asphyxiating gas and expanding bullets.

### **The Hague Peace Conference of 1907**

#### **Background**

This is another series of international treaties that was concluded and adopted in Geneva, Switzerland between 1864 and 1949. The Conventions in question comprise of four treaties and three additional protocols; all these were negotiated right after the Second World War

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John, Fabian W. ( Vol. 1:3) *The Dismal History of the Laws of War*, UC IRVINE LAW REVIEW  
<<http://www.law.uci.edu/lawreview/Vol11No3Articles/Witt.pdf>> Accessed on 17/11/2015

(WWII)<sup>61</sup> which basically updated the terms of the first three treaties of 1864, 1906 and 1929; and it added another fourth treaty in 1949. It is further certain that, the development of Geneva Conventions is highly associated with the Red Cross in which its founder Henri Dunant initiated the international negotiations which finally produced the conventions for the amelioration of the wounded in times of war in 1864<sup>62</sup>.

### Scope

Among other things, the scope of Geneva Conventions in particular focuses on regulating the conduct of armed conflict and seeking to limit effects of the same, it further, based on protecting people who are not taking part in hostilities (civilians, health workers and aid workers) and those who are no longer participating in the hostilities, such as wounded, sick and shipwrecked soldiers and prisoners of war<sup>63</sup>.

Therefore, generally the conventions in question provides for; (1) the immunity from capture and destruction of all establishments for the treatment of wounded and sick soldiers and their personnel, (2) the impartial reception and treatment of all combatants, (3) the protection of civilians providing aid to the wounded, and (4) the recognition of the Red Cross symbol as a means of identifying persons and equipment covered by the agreement<sup>64</sup>.

<sup>61</sup>From September 1939 to September 1945

<sup>62</sup>François, Bugnion. *Geneva and Red Cross*. (May 2005) Pp. 2- 4

< [http://www.icrc.org/eng/assets/files/other/geneve\\_et\\_croix\\_rouge\\_anglais.pdf](http://www.icrc.org/eng/assets/files/other/geneve_et_croix_rouge_anglais.pdf)> Accessed on 17/11/2015 Red Cross was born in Geneva where also its headquarters is situated. Historically, in 1859 Henry Dunant a Swiss businessman and the founder of the Red Cross witnessed the aftermath of the bloody Battle fought between French and Austrian armies in Solferino, Italy, he was horrified by what he saw – number and thousands of soldiers lying helplessly and abandoned no one to care and help them („A Memory of Solferino” his book - 1862). It is through this experience led him to suggest various settings in which the voluntary relief society would be trained to during a peace time as on how the wounded in wartime could be cared. He formed the group known as „the Committee of Five”, in which later it became the International Committee of the Red Cross which was formed in Geneva in 1863 purposely to act on Dunant’s suggestions Furthermore, Dunant led to the formation of the 1864 Geneva Convention which was the first international treaty that was codified to cover matters concern the sick and wounded soldiers in the battlefield.

< American Red Cross. *Summary of the Geneva Conventions of 1949 and Their Additional Protocols*. (2011) Pp. 1- 2>  
<[http://www.redcross.org/images/MEDIA\\_CustomProductCatalog/m3640104\\_IHL\\_SummaryGenevaConventions.pdf](http://www.redcross.org/images/MEDIA_CustomProductCatalog/m3640104_IHL_SummaryGenevaConventions.pdf)> Accessed on 17/11/2015

< Henri Dunant (1986) A Memory of Solferino; (P) International Committee of the Red Cross, Geneva, Switzerland >  
< <http://www.icrc.org/eng/assets/files/publications/icrc-002-0361.pdf>>

< Report of the Committee on Foreign Relations on Executives D, E, F – Eighty Second Congress (June 1955) P. 6 >

< [http://www.loc.gov/rr/frd/Military\\_Law/pdf/GC-senReport.pdf](http://www.loc.gov/rr/frd/Military_Law/pdf/GC-senReport.pdf)> Accessed on 17/11/2015

< [http://www.law.cornell.edu/wex/geneva\\_conventions](http://www.law.cornell.edu/wex/geneva_conventions) > Accessed on 17/11/2015

<sup>63</sup><http://www.icrc.org/eng/war-and-law/treaties-customary-law/geneva-conventions/overview-genevaconventions.htm> Accessed on 17/11/2015

<sup>64</sup><http://www.britannica.com/EBchecked/topic/229047/Geneva-Conventions> Accessed on 17/11/2015

## **The Geneva Convention I<sup>65</sup>**

The Convention in particular has passed through different revisions, genuinely it was adopted in 1864 which later significantly revised and replaced by the version of 1906, the 1929 version and later it became the First Geneva Convention of 1949<sup>66</sup>.

This Convention seeks to protect the infirm soldiers and medical personnel against further attacks, torture and assaults upon personal dignity. Further, it provide for the proper medical treatment and care<sup>67</sup>. This Convention does not give guidelines concern the conduct of warfare thus means and methods of the same.

## **The Geneva Convention II<sup>68</sup>**

This Convention contains 63 Articles, the provisions within extends the protection mentioned on the first convention there above, especially to shipwrecked soldiers and other naval forces, including special protections afforded to hospital ships<sup>69</sup>. This convention also did not cover matters of means and methods of warfare.

## **The Geneva Convention III<sup>70</sup>**

The Convention in question is composed with 143 Articles; it basically deals with the treatment of prisoners of war in war time. It further set out rules as on how the prisoners of war (POWs) have to be treated; and this include the humanly treatment, adequately housed<sup>71</sup>, receive sufficient food, clothing and medical care. Also the provisions of the same establish guidelines on labor, discipline, recreation and criminal trial. The POWs however includes – members of the armed forces, volunteer militia, including resistance movements and the civilians accompanying the armed forces<sup>72</sup>

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<sup>65</sup> Geneva Convention (I) for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field, August 12, 1949

<sup>66</sup> <http://www.icrc.org/ihl/INTRO/120?OpenDocument> Accessed on 17/11/2015

<sup>67</sup> Article 3, 12 and 13 of Geneva Convention (I) for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field, August 12, 1949

<sup>68</sup> Chapter II and III of the Geneva Convention (II) for the Amelioration of the Condition of Wounded, Sick and Shipwrecked Members of Armed Forces at Sea, August 12, 1949

<sup>69</sup> [http://www.law.cornell.edu/wex/geneva\\_conventions](http://www.law.cornell.edu/wex/geneva_conventions) Accessed on 17/11/2015

<sup>70</sup> Geneva Convention (III) Relative to the Treatment of Prisoners of War; August 12, 1949

<sup>71</sup> Article 50 and 54, The Geneva Convention (III) Relative to the Treatment of Prisoners of War; August 12, 1949

<sup>72</sup> American Red Cross. *Summary of the Geneva Conventions of 1949 and Their Additional Protocols*



## The Geneva Convention IV<sup>73</sup>

The application of the preceding provisions shall not affect the legal status of the Parties to the conflict”.

## ICRC, Customary Rules of International Humanitarian Law<sup>74</sup>

It provides for the general Principles on the Use of Weapons; for example it prohibits the use of means and methods of warfare which are of a nature to cause superfluous injury or unnecessary suffering<sup>75</sup>, the use of weapons which are by nature indiscriminate<sup>76</sup> and the use of poison or poisoned weapons is prohibited and the use of biological weapons.<sup>77</sup>

Further it prohibits the use of Chemical Weapons for example the use of riot-control agents as a method of warfare, the use of herbicides as a method of warfare if they: are of a nature to be prohibited chemical weapons; are of a nature to be prohibited biological weapons; are aimed at vegetation that is not a military objective; would cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which may be expected to be excessive in relation to the concrete and direct military advantage anticipated; or would cause widespread, long-term and severe damage to the natural environment<sup>78</sup>

Also it prohibits the use of expanding and exploding bullets which expand or flatten easily in the human body<sup>79</sup>, the use of weapons the primary effect of which is to injure by fragments which are not detectable by X-rays in the human body, the use of booby-traps which are in any way attached to or associated with objects or persons entitled to special protection under international humanitarian law or with objects that are likely to attract civilians and the use of landmines<sup>80</sup>. the anti-personnel use of incendiary weapons unless it is not feasible to use a less harmful weapon to render a person *hors de combat*<sup>81</sup> and the use of laser weapons that are specifically designed, as

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<sup>73</sup>The Geneva Convention (IV) Relative to the Protection of Civilian Persons in Time of War, August 12, 1949

<sup>74</sup>ICRC, Customary Rules of International Humanitarian Law of 2005

<sup>75</sup>Ibid Rule 70

<sup>76</sup>Ibid Rule 71

<sup>77</sup>Ibid Rule 72 and 73

<sup>78</sup>Ibid Rule 74, 75 and 76

<sup>79</sup>Ibid Rule 77 and 78

<sup>80</sup>Ibid Rule 79-84

<sup>81</sup>Ibid Rule 85

their sole combat function or as one of their combat functions, to cause permanent blindness to unenhanced vision is prohibited<sup>82</sup>.

### **Observation**

Considering to the core-laws of the war identified above, it is a subject of concern that, the concept of limiting the means and methods of warfare is as old as the war itself. This means that the limitation of the same ever since, was to archive the ultimate goal of fighting (war) thus to weaken the adverse party.

However, with other considerations it can be born in mind that the law at first place focuses on protecting people with their objects; and further on the other hand it protect them through a set of mechanisms that limit the means and methods of warfare in which at the end it spares individuals lives by not causing superfluous injury or unnecessary suffering<sup>83</sup>. Therefore, this may lead a person to say that, in whatsoever the conflict, people or states are involved with, the limitation of means and methods of warfare is the direct proportional to the protection of people's lives, properties and preservation of environment<sup>84</sup>.

### **2:3 PERSONS PROTECTED BY IHL DURING ARMED CONFLICT**

Apart from understanding the situation in which IHL is applied in the use of means and methods of warfare, it is also imperative to understand the persons that this body of laws seeks to protect. IHL makes a fundamental distinction between combatants and civilians as the persons protected by it during an armed conflict and determines the legal status of them.<sup>85</sup> It indicates the primary status of persons in the event of an armed conflict, whether of an international or non-international nature. Further, it determines the acquisition of a new secondary status when there is an actual change in circumstances. Finally, an individual's primary status determines the legal consequences of his or her conduct in the event of an armed conflict.

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<sup>82</sup>Ibid Rule 86

<sup>83</sup>Article 23 (e) of Convention (IV) respecting the Laws and Customs of War on Land and its annex: Regulations concerning the Laws and Customs of War on Land. The Hague, 18 October 1907; Article 53(2) Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts Protocol I), 8 June 1977

<sup>84</sup>Article 35 (Part III) of the Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), 8 June 1977

<sup>85</sup>Lester Nurik. The Distinction between Combatant and Non-combatant in the Law of War.39AJ.LL (1999) at pg. 80-695.

## Combatants

Various international agreements have attempted to define combatants<sup>86</sup>. In simple terms a combatant is defined as a person who may take part in the hostilities and participate in the use of a weapon or weapons system in an indispensable function<sup>87</sup>. Combatants include:

- i. Members of the Armed Forces of a state(excluding its civilian personnel)
- ii. Members of militia or volunteer corps integrated into the armed forces,
- iii. Members of other armed groups which satisfy the criteria of having a responsible command and conducting their operations in accordance with the laws and customs of law and finally,
- iv. Members of the *levee en masse*

These persons are authorized by international law to fight in accordance with laws applicable in armed conflict. They may not be punished for the mere fact of having taken part in an armed conflict. Upon capture by the enemy, they are entitled to prisoner of war status with its special rights, better conditions and more extensive set of benefits<sup>88</sup>. This is the inalienable right afforded to all combatants under Geneva Convention III and the two Additional Protocols

If a combatant follows the rules and regulations of the laws of war during armed conflict, they are entitled to “combatant’s privilege” such combatant is immune from prosecution for lawful combat activities. For example, a lawful combatant may not be tried for an act (such as assault, murder, kidnapping, trespass, and destruction of property) that is a crime under a capturing party’s domestic law in time of peace, when that act is committed within the context of hostilities and does not otherwise violate the Law of Armed Conflict<sup>89</sup>.

A combatant has a duty to distinguish themselves from the civilian population while engaged in an attack or in a military operation preparatory to an attack<sup>90</sup>. Any combatant who does not identify himself as such either by wearing uniform or other distinctive insignia during an armed conflict is

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<sup>86</sup>1874 Brussels Declaration Arts 9-11, The Hague Regulations Respecting the Laws and Customs of War Arts 1-3, Geneva Convention III Art 4 and The Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), 8 June 1977 [ hereinafter Additional Protocol I] Article 43 and 44.

<sup>87</sup>The Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), 8 June 1977 [ hereinafter Additional Protocol I] Article 43

<sup>88</sup>Ibid

<sup>89</sup>Inter-American Commission on Human Rights, Report on Terrorism and Human Rights,/See.L/-V/II.116 Doc., 5 rev. 1 corr., (Oct. 22, 2002), at <http://www.cidh.oas.org/Terrorism/Eng/toc.htm> (accessed on 17/11/2015)

<sup>90</sup>The Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), 8 June 1977 [ hereinafter Additional Protocol I] Article 48

guilty of perfidy<sup>91</sup> and will be deemed an unlawful combatant who is not seized of combatant's immunity.<sup>92</sup>

### **Civilians**

For the purpose of IHL a civilian is a person who is not a member of the armed forces<sup>93</sup>. These are persons who are not allowed to take in hostilities, since it is only combatant who may be allowed to do so. It is only the levee en masse<sup>94</sup> who are allowed to participate in armed attack although they are civilian. Civilians are under no obligation to identify themselves or to distinguish themselves from combatants. They are entitled to respect for their persons, their family rights, religious convictions their manner and customs<sup>95</sup>.

### **2:4 CONCLUSION**

The laws of armed conflict guides two related choices in combat: (1) the means, that is, the weapons used to fight; and (2) the methods, that is, the tactics of fighting. "Means and methods" is the phrase commonly used to refer to law governing the conduct of hostilities—the *jus in bello*. The "justness" of a struggle or how the parties ended up in armed conflict is not addressed. Rather, this area of law deals with how parties conduct the armed conflict once engaged.

In past centuries, ideals of culture, honor, religion, and chivalry helped define battlefield norms. Though these ideals and others still inform our sense of what conduct is "fair" in combat, four legal principles govern modern targeting decisions: i.e. Military necessity, Distinction, Proportionality, and Humanity.

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<sup>91</sup>Ibid Article 37-39

<sup>92</sup>Ibid Article 37-39

<sup>93</sup>Ibid Article 50

<sup>94</sup>Geneva Convention (III) Relative to the Treatment of Prisoners of War; August 12, 1949 Article 4A (6)

<sup>95</sup>Article 3 common to Geneva Conventions

## CHAPTER THREE

### THE GENERAL PRINCIPLE AND APPLICABILITY OF CERTAIN WEAPONS

#### 3:1 INTRODUCTION

This chapter will examine the principles and specific areas that a comprehensive body of international humanitarian law regulating the use of certain means and methods of warfare must cover. It will explore the tension between the needs of military forces to engage in certain means and methods of warfare and the rights of non-participants to safety and security. In doing so, the chapter attempts to fashion a legal standard that is palatable to the major participants in means and methods of warfare.

#### 3:2 THE PRACTICE RELATING TO THE USE OF CERTAIN WEAPONS

In different countries some weapons and weapons systems are totally prohibited. These blanket prohibitions may be traced to treaty or customary international law and they are justified on the grounds that the subject weapons are either indiscriminate in their effect or cause unnecessary suffering.

Further, most of the countries which regulate certain weapons states all the legality of those weapons and how they are limited in the way in which they may be used. Specifically, no weapons may be used indiscriminately.” In addition, they underline that “weapons which cannot be directed at military objectives or the effect of which cannot be limited are prohibited”. For example;

##### **Australia,**

*Australia's Defence Force Manual* states that “some weapons and weapons systems are totally prohibited. These blanket prohibitions, which may be traced to treaty or customary international law, are justified on the grounds that the subject weapons are either indiscriminate in their effect or cause unnecessary suffering”<sup>96</sup>. It also states that poison or poisoned weapons are prohibited “because of their potential to be indiscriminate”<sup>97</sup>. Likewise, according to the manual, “both chemical and biological weapons are prohibited because they cause unnecessary suffering and may affect the civilian population in an indiscriminate fashion”<sup>98</sup>. With respect to weapons deemed to be

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<sup>96</sup> Australia, *Defence Force Manual* (1994), at para. 304.

<sup>97</sup> *Ibid* at para. 406

<sup>98</sup> *Ibid* at para. 414

legal, the manual notes that “all legal weapons are limited in the way in which they may be used. Specifically, no weapons may be used indiscriminately”<sup>99</sup>.

### Canada

*Canada’s LOAC Manual* states that some weapons are “totally prohibited by the LOAC” because they are indiscriminate. It further states that: “Weapons that are indiscriminate in their effect are prohibited”. A weapon is indiscriminate if it might strike or affect legitimate targets and civilians or civilian objects without distinction. Therefore, a weapon that cannot be directed at a specific legitimate target or the effects of which cannot be limited as required by the law of armed conflict is prohibited. For example, it may be argued that the Scud missile used in the Gulf War falls in that category.<sup>100</sup>

The manual adds that the use of poison or poisoned weapons is illegal because of their potential to be indiscriminate. For example, the poisoning or contamination of any source of drinking water is prohibited. Posting a notice that the water has been contaminated or poisoned does not make this practice legal, as both civilians and combatants might drink from that water source and be equally affected.<sup>101</sup>

As regards lawful weapons, the manual states that “legal weapons are limited in the way in which they may be used. Specifically, no weapons may be used indiscriminately.”<sup>102</sup>

### France

*France’s LOAC Manual* states that weapons that have “indiscriminate effects” are prohibited.<sup>103</sup> It adds that, “because of their indiscriminate effects”, the use of poison, chemical weapons, biological and bacteriological weapons, dum-dum bullets or other projectiles with expanding heads, antipersonnel mines, weapons that injure by non-detectable fragments, blinding laser weapons, and torpedoes without self-destruction mechanisms “is totally prohibited by the law of armed conflicts”.<sup>104</sup>

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<sup>99</sup>Ibid at para 415.

<sup>100</sup>Canada, *LOAC Manual* (1999), p. 5-2, para. 10 and 11.

<sup>101</sup>Ibid at p. 5-2, para. 20.

<sup>102</sup>Ibid at p. 5-3, para. 32.

<sup>103</sup>France, *LOAC Manual* (2001), p. 53

<sup>104</sup>Ibid at p. 54.

## Israel

*Israel's Manual on the Laws of War* states that: Since St. Petersburg, there have been several universally accepted rules regarding weapons: ... Another important goal to attain is control over the weapons to ensure that the harm they inflict is limited only to the battlefield and the combatants thereon, and does not spread out of control to innocent parties such as civilians. Weapons that do not distinguish between targets are prohibited.<sup>105</sup>

## South Korea

*South Korea's Operational Law Manual* provides that “weapons that are by nature indiscriminate shall be prohibited”.<sup>106</sup>

## New Zealand

*New Zealand's Military Manual* states that “weapons which cannot be directed at military objectives or the effects of which cannot be limited are prohibited”.<sup>107</sup>

## Nigeria

*Nigeria's Military Manual* states that “the basic principles are that every commander has the right to choose the means and methods of type of warfare” but has to “distinguish between military and civilian objects”.<sup>108</sup>

## Russia

*Russia's Military Manual* provides that: Prohibited means of warfare are the various weapons of an indiscriminate character and/or those that cause unnecessary suffering:

- a) bullets that expand or flatten easily in the human body;
- b) projectiles used with the only purpose to spread asphyxiating or poisonous gases;
- c) projectiles weighing less than 400 grammes, which are either explosive or charged with fulminating or inflammable substances;
- d) poisons or poisoned weapons;
- e) asphyxiating, poisonous or other similar gases and bacteriological means;
- f) bacteriological (biological) and toxin weapons;
- g) environmental modification techniques having widespread, long-term or serious effects as means of destruction, damage or injury;

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<sup>105</sup>Israel, *Manual on the Laws of War* (1998), pp. 11–12, see also p. 37.

<sup>106</sup>South Korea, *Operational Law Manual* (1996), p. 129

<sup>107</sup>New Zealand, *Military Manual* (1992), at para. 509(4).

<sup>108</sup>Nigeria, *Military Manual* (1994), p. 42, para. 11

h) all types of weapons of an indiscriminate character or that cause excessive injury or suffering.<sup>109</sup>

### **Sweden**

*Sweden's IHL Manual* states that, according to the criteria given in the 1868 St. Petersburg Declaration and in the 1907 Hague Convention (IV), Weapons shall be considered particularly inhuman if they: cause unnecessary suffering or superfluous damage, or have indiscriminate effects, meaning that the weapon effects strike military objectives and civilian persons without any distinction. These criteria have been used in all arms limitation negotiations in recent years.<sup>110</sup>

### **Switzerland**

*Switzerland's Basic Military Manual*, with respect to nuclear weapons, refers to Article 51 AP I and states that "it is prohibited to use weapons the effects of which can harm civilian or military objectives without discrimination"<sup>111</sup>.

### **Argentina**

*Argentina's Draft Code of Military Justice* punishes "any soldier who, on the occasion of an armed conflict, uses or orders to be used prohibited methods or means of combat"<sup>112</sup>.

### **The Republic of Czech**

*The Czech Republic's Criminal Code* as amended punishes "any person who develops, produces, imports, possesses or stockpiles weapons, combat equipment or explosives prohibited by law or by an international treaty approved by the Parliament or otherwise disposes of them".<sup>113</sup> It also punishes "whoever in time of war or in combat ...orders the use of a forbidden means of combat or material, or who uses such means or material".<sup>114</sup>

### **Denmark**

*Denmark's Military Criminal Code* as amended punishes "any person who uses war instruments or procedures the application of which violates an international agreement entered into by Denmark or the general rules of international law".<sup>115</sup>

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<sup>109</sup>Russia, *Military Manual* (1990), Article 6.

<sup>110</sup>Sweden, *IHL Manual* (1991), Section 3.3.1, pp. 78–79.

<sup>111</sup>Switzerland, *Basic Military Manual* (1987), Article 24

<sup>112</sup>Argentina, *Draft Code of Military Justice* (1998), Article 290, introducing a new Article 874 in the *Code of Military Justice as amended* (1951).

<sup>113</sup>Czech Republic, *Criminal Code as amended* (1961), Article 185 (a) (1).

<sup>114</sup>Czech Republic, *Criminal Code as amended* (1961), Article 262(1) (a).

<sup>115</sup>Denmark, *Military Criminal Code as amended* (1978), at para. 25



### 3:3 PROHIBITION OR RESTRICTION ON SPECIFIC WEAPONS

The acquisition and procurement of weapons and weapon systems shall be consistent with all applicable domestic law and treaties and international agreements, customary international law, and the law of armed conflict. This test cannot be conducted in isolation, but must be weighed in light of comparable, lawful weapons in use on the modern battlefield. Weapons may be found illegal: if (a) per se; those weapons calculated to cause unnecessary suffering, determined by the “usage of states.” Examples: lances with barbed heads, irregular shaped bullets, projectiles filled with glass, (b) by improper use; Using an otherwise legal weapon in a manner to cause unnecessary suffering. Example: using a flamethrower against enemy troops in a bunker after dousing the bunker with gasoline; the *intent* being to inflict severe pain and injury on the enemy troops and (c) by agreement or specific treaty prohibition. Example: certain land mines, booby traps, and non-detectable fragments are prohibited under the Protocols to the 1980 Conventional Weapons Treaty<sup>116</sup>. The following are kind of weapons that are prohibited or restricted under the law;

#### 3:3:1 WEAPONS OF A NATURE TO CAUSE SUPERFLUOUS INJURIES OR UNNECESSARY SUFFERING

Weapons of a nature to cause superfluous injuries or unnecessary suffering are prohibited. For example Article 23(e) of the 1899 HR provides that it is “especially prohibited . . . to employ arms, projectiles, or material of a nature to cause superfluous injury”. Further Article 23(e) provides that “it is especially forbidden ...to employ arms, projectiles, or material calculated to cause unnecessary suffering”<sup>117</sup>. Also Article 35(2) AP I provides that “it is prohibited to employ weapons, projectiles and material and methods of warfare of a nature to cause superfluous injury or unnecessary suffering”. Article 35 AP I was adopted by consensus<sup>118</sup>.

Further Article 20(2) of draft AP II submitted by the ICRC to the Diplomatic Conference on the Reaffirmation and Development of International Humanitarian Law Applicable in Armed Conflicts (Geneva, 1974–1977) (CDDH) provided that “it is forbidden to employ weapons, projectiles, and material and methods of combat of a nature to cause superfluous injury or unnecessary

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<sup>16</sup>MAJ William J. Johnson & Maj Andrew D. Gillman, *Law of Armed Conflict Desktop*; (2012) Charlottesville, VA at p. 152-153

<sup>17</sup>Regulations Concerning the Laws and Customs of War on Land, annexed to Hague Convention (IV) Respecting the Laws and Customs of War on Land, Oct. 18, 1907, T.S. 539.

<sup>18</sup>CDDH, *Official Records*, Vol. VI, CDDH/SR.39, 25 May 1977, p. 101

suffering”<sup>119</sup>. This proposal was adopted by consensus in Committee III of the Diplomatic Conference on the Reaffirmation and Development of International Humanitarian Law Applicable in Armed Conflicts (Geneva, 1974–1977) (CDDH)<sup>120</sup>. Eventually, however, it was deleted in the plenary, after having been rejected by 25 votes in favor, 19 against and 33 abstentions<sup>121</sup>.

The preamble to the 1980 CCW provides that the States parties have based themselves “on the principle that prohibits the employment in armed conflicts of weapons, projectiles and material and methods of warfare of a nature to cause superfluous injury or unnecessary suffering”.

To fulfill its task of disseminating IHL, the ICRC has delegates around the world teaching armed and security forces that “it is prohibited to use weapons of a nature to cause: a) superfluous injury or unnecessary suffering”<sup>122</sup>.

The ICRC Commentary on the Additional Protocols states that: the specific applications of the prohibition formulated in Article 23, paragraph 1(e), of The Hague Regulations, or resulting from the Declarations of St. Petersburg and The Hague, are not very numerous. They include:

1. explosive bullets and projectiles filled with glass, but not explosives contained in artillery missiles, mines, rockets and hand grenades;
2. “dum-dum” bullets, i.e., bullets which easily expand or flatten in the human body, such as bullets with a hard envelope which does not entirely cover the core or is pierced with incisions or bullets of irregular shape or with a hollowed out nose;
3. poison and poisoned weapons, as well as any substance intended to aggravate a wound;
4. asphyxiating or deleterious gases;
5. bayonets with a serrated edge, and lances with barbed heads;
6. Hunting shotguns are the object of some controversy, depending on the nature of the ammunition and its effects on a soft target.

The weapons which are prohibited under the provisions of the Hague Law are, *a fortiori*, prohibited under [Article 35(2) AP I]<sup>123</sup>

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<sup>119</sup>CDDH, *Official Records*, Vol. I, Part Three, Draft Additional Protocols, June 1973, p. 39.

<sup>120</sup>CDDH, *Official Records*, Vol. XV, CDDH/III/SR.49, 4 June 1976, p. 107, para. 2.

<sup>121</sup>CDDH, *Official Records*, Vol. VII, CDDH/SR.51, 3 June 1977, p. 114

<sup>122</sup>Fr'eric de Mulinen, *Handbook on the Law of War for Armed Forces*, ICRC, Geneva, 1987, at para.394, see also para 912(a).

<sup>123</sup>Yves Sandoz *et al.* (eds.), *Commentary on the Additional Protocols*, ICRC, Geneva, 1987, para 1419–1420.

In a press release issued in 1991 in the context of the Gulf War, the ICRC reminded the belligerents that “the right to choose methods or means of warfare is not unlimited. Weapons . . . likely to cause disproportionate sufferings . . . are prohibited”<sup>124</sup>.

In a working paper on war crimes submitted in 1997 to the Preparatory Committee for the Establishment of an International Criminal Court, the ICRC proposed that the employment of “weapons, projectiles and material and methods of warfare of a nature to cause superfluous injury or unnecessary suffering”, when committed in international or non-international armed conflicts, be subject to the jurisdiction of the Court<sup>125</sup>.

*The ICRC’s SIrUS Project* initiated in 1998 aimed to contribute to the evaluation of the lawfulness of weapons by indicating the health effects actually caused by commonly used weapons in the armed conflicts that have taken place over the last few decades. This material provided for some objectivity in the evaluation, in particular, of the expected health effects of a weapon that had to be weighed against the foreseen military utility: The findings of the SIrUS Project illustrated in particular the effects not normally seen on the battlefield, namely:

- disease other than that resulting from physical trauma from explosions or projectiles;
- abnormal physiological state or abnormal psychological state (other than the expected response to trauma from explosions or projectiles);
- permanent disability specific to the kind of weapon (with the exception of the effects of point-detonated anti-personnel mines – now widely prohibited);
- disfigurement specific to the kind of weapon;
- inevitable or virtually inevitable death in the field or a high hospital mortality level;
- grade 3 wounds among those who survive to hospital;
- Effects for which there is no well-recognized and proven treatment which can be applied in a well-equipped field hospital.

*The SIrUS Project* suggested that: States, when reviewing the legality of a weapon, take the above facts into account by:

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<sup>124</sup>ICRC, Press Release No. 1659, Middle East conflict: ICRC appeals to belligerents, 1 February 1991, *IRRC*, No. 280, 1991, p. 27

<sup>125</sup>ICRC, Working paper on war crimes submitted to the Preparatory Committee for the Establishment of an International Criminal Court, New York, 14 February 1997, para 2(i) and 3(vii).

➤ establishing whether the weapon in question would cause any of the above effects as a function of its design, and if so:

➤ Weigh the military utility of the weapon against these effects; and determine whether the same purpose could reasonably be achieved by other lawful means that do not have such effects.

The project also proposed that “States make new efforts a) to build a common understanding of the norms to be applied in the review of new weapons and b) to promote transparency in the conduct and results of such reviews”<sup>126</sup>.

### 3:3:2 WEAPONS THAT BY NATURE INDISCRIMINATE

An indiscriminate weapon is a weapon that cannot be directed at a military objective or whose effects cannot be limited as required by international humanitarian law (IHL). Under IHL, the use of such an ‘inherently’ indiscriminate weapon is prohibited.

Indiscriminate attacks are those of a nature to strike military objectives and civilians or civilian objects without distinction, notably because they employ means or methods of warfare that cannot be directed at a specific military objective or the effects of which cannot be limited as required by IHL<sup>127</sup>. Disproportionate attacks and area bombardment are treated as particular forms of indiscriminate attacks. The rule of proportionality prohibits 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>128</sup>. Area bombardment is defined as “an attack by bombardment by any methods or means which treats as a single military objective a number of clearly separated and distinct military objectives located in a city, town, village or other area containing a similar concentration of civilians or civilian objects.”<sup>129</sup> The foregoing rules must be respected by the parties to an armed conflict in all circumstances<sup>130</sup>, even if alternative, more discriminate weapons or tactics are not available to them.

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<sup>126</sup>Robin M. Coupland and Peter Herby, “Review of the legality of weapons: a new approach. The SlrUS Project”, *JRRC*, No. 835, 1999, pp. 583–592.

<sup>127</sup>The Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), 8 June 1977 [ hereinafter Additional Protocol I] Article 51(4)

<sup>128</sup>Ibid Article 51(5) (b)

<sup>129</sup>Ibid Article 51(5) (a)

<sup>130</sup>Ibid Article 51(1)

In addition to these obligations, the IHL rule of precautions in attack requires the parties to an armed conflict, in the conduct of their military operations, to take constant care to spare the civilian population, individual civilians and civilian objects<sup>131</sup>. This rule notably requires “those who plan or decide upon an attack” to take “all feasible precautions in the choice of means and methods of attack with a view to avoiding, and in any event to minimizing, incidental loss of civilian life, injury to civilians and damage to civilian objects”.<sup>132</sup> When conducting hostilities in populated areas, the rule of precautions may require the parties to choose the most precise weapon available, or consider alternative weapons and/or tactics.

### **3:3:3NUCLEAR WEAPONS**

Nuclear weapons are not prohibited by international law. In 1996, the International Court of Justice (ICJ) issued an advisory opinion<sup>133</sup> that “[t]here is in neither customary nor international law any comprehensive and universal prohibition of the threat or use of nuclear weapons.” However, by a split vote, the ICJ also found that “[t]he threat or use of nuclear weapons would generally be contrary to the rules of international law applicable in armed conflict.” The ICJ stated it could not definitively conclude whether the threat or use of nuclear weapons would be lawful or unlawful in an extreme circumstance of self-defense, in which the very survival of the state would be at stake.

#### **3:3:3:1 THE LEGALITY OF THREAT OR USE OF NUCLEAR WEAPONS**

**On December 20, 1994, the UN General Assembly requested the ICJ to give an advisory opinion on the question: “is the threat or use of nuclear weapons in any circumstance permitted under international law?”**<sup>134</sup>

In determining the legality or illegality of the threat or external use of nuclear weapons, the ICJ decided that the most directly relevant applicable law governing the Assembly’s question consisted of (1) the provisions of the UN Charter relating to the threat or use of force, (2) the principles and rules of international humanitarian law that form part of the law applicable in armed conflict and

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<sup>131</sup>Ibid Article 57(1)

<sup>132</sup>Ibid Article 57(2)(a)(ii)

<sup>133</sup>Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. 226 (July 8), *available at* <http://www.icj-cij.org/docket/files/95/7495.pdf>.

<sup>134</sup>Ibid

the law of neutrality, and (3) any relevant specific treaties on nuclear weapons. In applying this law, the court considered it imperative to take into account certain unique characteristics of nuclear weapons, in particular their destructive capacity that can cause untold human suffering for generation to come.

The court first considered the provision of the UN Charter relating to the threat or use of force. Although article 2(4) generally prohibit the threat or use of force, there are exceptions to that which is state's inherent right of individual or collective self-defense if an armed attack occurs<sup>135</sup> and authorization from the Security Council to take military enforcement measures<sup>136</sup> which do not refer to specific weapons, the court held that they apply to any use of force, regardless of the type of weapon employed. The court noted that the UN Charter neither expressly prohibits, nor permits, the use of any specific weapon (including nuclear weapons) and that a weapon that is already unlawful per se by treaty or custom does not become lawful by reason of its being used for a legitimate purpose under the Charter. Whatever the means of force used in self-defense, the dual customary conditions of necessity and proportionality and the law applicable in armed conflict apply, including such further considerations as the very nature of nuclear weapons and the profound risks associated with their use.

The court pointed out that the mere possession of nuclear weapons would not constitute an unlawful "threat" to use force contrary to Article 2(4)<sup>137</sup>, unless the particular use of force envisaged would be directed against the territorial integrity or political independence of a state or would be inconsistent with the purpose of the United Nations or, in the event that it were intended as a means of defense, such envisaged use of force would violate the principles of necessity and proportionality.

The Court next examined the law applicable in situation of armed conflict by addressing two questions: (1) are there specific rules in international law regulating the legality or illegality of recourse to nuclear weapons per se, and (2) what are the implications of the principles and rules of humanitarian law applicable in armed conflict and the law of neutrality?

The ICJ noted that international customary and treaty law do not contain any specific prescription authorizing the threat or use of nuclear weapons or any other weapon in general or in certain circumstances, in particular those of the exercise of legitimate self-defense. Nor, however, is there

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<sup>135</sup>Article 51 of The Charter of the United Nations, 26 June 1945

<sup>136</sup>Ibid Article 42

<sup>137</sup>The Charter of the United Nations, 26 June 1945

any principle or rule of international law that would make the legality of the threat or use of nuclear weapons or of any other weapons dependent on a specific authorization. State practice shows that the illegality of the use of certain weapons as such does not result from an absence of authorization but is rather formulated in terms of prohibition<sup>138</sup>.

The Court examined whether any such prohibition of recourse to nuclear weapons can be found in treaty law. With regard to certain specific treaties dealing with the acquisition, manufacture, possession, deployment and testing of nuclear weapons, the Court noted that these treaties "point to an increasing concern in the international community" with regard to nuclear weapons, and concluded that they "could therefore be seen as foreshadowing a future general prohibition of the use of such weapons, but they do not constitute such a prohibition by themselves." As to those treaties that address the issue of recourse to nuclear weapons, the Court observed that they "testify to a growing awareness of the need to liberate the community of States and the international public from the dangers resulting from the existence of nuclear weapons," but that these treaties also do not amount to a comprehensive and universal conventional prohibition on the threat or use of nuclear weapons as such<sup>139</sup>.

The Court then examined customary international law. First, it determined that the non-use of nuclear weapons does not amount to a customary prohibition, because the world community is profoundly divided on the issue. Second, the Court examined whether certain General Assembly resolutions that deal with nuclear weapons signify the existence of a rule of customary international law prohibiting recourse to nuclear weapons. In the Court's view, although these resolutions are "a clear sign of deep concern regarding the problem of nuclear weapons" and "reveal the desire of a very large section of the international community to take, by a specific and express prohibition of the use of nuclear weapons, a significant step forward along the road to complete nuclear disarmament," they fall short of a customary rule specifically prohibiting the use of nuclear weapons as such

The ICJ next considered whether recourse to nuclear weapons must be considered as illegal in the light of the principles and rules of international humanitarian law applicable in armed conflict and of the law of neutrality. The Court stated that the cardinal principles of international humanitarian law prescribing the conduct of military operations are: (1) the protection of the civilian population

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<sup>138</sup> Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. 226 (July 8), *available at* <http://www.icj-cij.org/docket/files/95/7495.pdf>.

<sup>139</sup> *Ibid*

and civilian objects and the prohibition of the use of weapons incapable of distinguishing between combatants and non-combatants, and (2) the prohibition on causing unnecessary suffering to combatants by using certain weapons. According to the Court, the fundamental rules of humanitarian law applicable in armed conflict must be observed by all states whether or not they have ratified the conventions that contain them, because they constitute intransgressible principles of international customary law. The ICJ agreed with the vast majority of states as well as writers that there can be no doubt as to the applicability of the principles and rules of humanitarian law in armed conflict to a possible threat or use of nuclear weapons, despite the fact that these principles and rules had evolved prior to the invention of nuclear weapons<sup>140</sup>.

It also found that the customary principle of neutrality is applicable, subject to the relevant provisions of the UN Charter, to all international armed conflict, whatever type of weapons might be used (although the principle of neutrality is not well defined, and the ICJ left its content undefined here, it is generally regarded as requiring at least that no attack be made on a state that has declared itself a neutral and is conducting itself accordingly)<sup>141</sup>.

Despite the undisputed applicability of the principles and rules of humanitarian law and of the law of neutrality to nuclear weapons, the ICJ found that the conclusions to be drawn from this applicability were controversial. The Court admitted that, in view of the unique characteristics of nuclear weapons, their use "in fact seems scarcely reconcilable" with the strict requirements dictated by the law applicable in armed conflict<sup>142</sup>.

### 3:3:4 CHEMICAL WEAPONS

Poison has long been outlawed in battle as being a treacherous means of warfare. Chemical weapons, more specifically, have been regulated since the early 1900's by several treaties. The 1899 Hague Declaration concerning Asphyxiating Gases was the first treaty to outlaw the use of gas in warfare. In the Declaration, which has been ratified by 31 States, "the contracting Powers agree to abstain from the use of projectiles the sole object of which is the diffusion of asphyxiating or deleterious gases".

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<sup>140</sup>Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion, 1996 I.C.J. 226 (July 8), *available at* <http://www.icj-cij.org/docket/files/95/7495.pdf>.

<sup>141</sup>Ibid

<sup>142</sup>Ibid



Article 171 of the 1919 Treaty of Versailles stipulated that “the use of asphyxiating, poisonous or other gases and analogous liquids, materials or devices being prohibited, their manufacture and importation are strictly forbidden in Germany.”

Article 5 of the 1922 Treaty on the Use of Submarines and Noxious Gases in Warfare provides that: The use in war of asphyxiating, poisonous or other gases, and all analogous liquids, materials or devices, having been justly condemned by the general opinion of the civilized world and a prohibition of such having been declared in treaties to which a majority of the civilized Powers are parties, The Signatory Powers, to the end that this prohibition shall be universally accepted as a part of international law binding alike the conscience and practice of nations, declare their assent to such prohibition, agree to be bound thereby between themselves and invite all other civilized nations to adhere thereto.

The 1925 Geneva Gas Protocol<sup>143</sup> provides that: Whereas the use in war of asphyxiating, poisonous or other gases, and of all analogous liquids, materials or devices, has been justly condemned by the general opinion of the civilized world and Whereas the prohibition of such use has been declared in Treaties to which the majority of Powers of the world are Parties; and To the end that this prohibition shall be universally accepted as a part of International Law, binding alike the conscience and the practice of nations; Declare: That the High Contracting Parties, so far as they are not already Parties to Treaties prohibiting such use, accept this prohibition . . . and agree to be bound as between themselves according to the terms of this declaration.

1993 Chemical Weapons Convention (CWC).<sup>144</sup> This treaty came into force in April 1997. Key articles are: Article I, parties agree to never develop, produce, stockpile, transfer, use, or engage in military preparations to use chemical weapons. Retaliatory use (second use) is not allowed, a significant departure from the Geneva Gas Protocol. It requires the destruction of chemical stockpiles. Each party agrees not to use RCAs as a “method of warfare.”

Article II, includes definitions of chemical weapons, toxic chemical, RCA, and purposes not prohibited by the convention. Article III, requires parties to declare stocks of chemical weapons and facilities they possess. Articles IV and V, include procedures for destruction and verification,

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<sup>143</sup> Protocol for the Prohibition of the Use of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, Geneva, 17 June 1925

<sup>144</sup> Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous, or Other Gases, and of Bacteriological Methods of Warfare, June 17, 1925, 26 U.S.T. 571, 94 L.N.T.S. 65.

including routine on-site inspections. Article VIII, establishes the Organization for the Prohibition of Chemical Weapons (OPWC). Article IX, establishes “challenge inspection;” a short notice inspection in response to another party’s allegation of noncompliance.

### 3:3:5 BACTERIOLOGICAL AND BIOLOGICAL WEAPONS

The 1925 Geneva Protocol prohibits bacteriological methods of warfare. According to the 1925 Geneva Gas Protocol, the States parties accept the prohibition on the use of asphyxiating, poisonous or other gases and “agree to extend this prohibition to the use of bacteriological methods of warfare”. There are 20 reservations to the Protocol related to biological weapons<sup>145</sup>. These generally indicate that if an adverse party does not respect the Protocol, the ratifying State will no longer consider itself bound by the Protocol vis-a-vis that party<sup>146</sup>. There were an additional 17 reservations to this effect, but they have been withdrawn<sup>147</sup>.

The 1972 Biological Weapons Convention (BWC) supplements the 1925 Geneva Protocol and prohibits the production, stockpiling, and use of biological and toxin weapons.

Article 1 of the 1972 BWC provides that: Each State Party to this Convention undertakes never in any circumstances to develop, produce, stockpile or otherwise acquire or retain:

- I. microbial or other biological agents, or toxins whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes;
- II. Weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict.

To fulfill its task of disseminating IHL, the ICRC has delegates around the world teaching armed and security forces that it is prohibited to use “bacteriological methods of warfare”<sup>148</sup>.

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<sup>145</sup>Algeria, Angola, Bahrain, Bangladesh, China, Fiji, India, Iraq, Israel, Jordan, North Korea, Kuwait, Libya, Nigeria, Pakistan, Papua New Guinea, Portugal, Solomon Islands, Vietnam and SFRY

<sup>146</sup>A number of reservations include non-respect by allies also as a reason for no longer being obliged to respect the Protocol

<sup>147</sup>By Ireland in 1972; by Australia in 1986; by New Zealand in 1989; by Slovakia in 1990; by Bulgaria, Canada (in relation to bacteriological weapons), Chile, Romania and UK (in relation to bacteriological weapons) in 1991; by Spain in 1992; by the Netherlands in 1995; by France and South Africa in 1996; by Belgium in 1997; and by Estonia in 1999; by Russia in 2001; by South Korea in 2002.

<sup>148</sup>Fr'eric de Mulinen, *Handbook on the Law of War for Armed Forces*, ICRC, Geneva, 1987, at para 919(c).

In a Memorandum on the Applicability of International Humanitarian Law sent in 1990 to all States party to the Geneva Conventions in the context of the Gulf War, the ICRC stated that “the use of . . . bacteriological weapons is prohibited (1925 Geneva Protocol)<sup>149</sup>”

In a press release issued in 1991 in the context of the Gulf War, the ICRC reminded the parties that “the use of ... bacteriological weapons is prohibited under international humanitarian law”<sup>150</sup>

In 1994, in a Memorandum on Respect for International Humanitarian Law in Angola, the ICRC stated that “in particular, the use of . . . bacteriological weapons . . . is prohibited”<sup>151</sup>.

In its statement at the Fourth Review Conference of States Parties to the BWC in 1996, the ICRC, referring to the 1925 Geneva Gas Protocol, stated that “the norms which your predecessors so carefully constructed have now become elements of customary international law. With few exceptions, they have been respected even in times of armed conflict.” It called upon States to adhere to the BWC and to consider withdrawing any reservations that they might have to the Geneva Gas Protocol. The ICRC concluded by stating that: “Biological warfare, in whatever form and by whatever party, is rightfully considered abhorrent by the public conscience and by the world’s most ancient cultures. This Conference’s most important task will be to reaffirm, in both word and action that no party should even think of using biological knowledge to inflict harm and to assure anyone who does that this will not be tolerated by the international community”<sup>152</sup>.

In its working paper on war crimes submitted in 1997 to the Preparatory Committee for the Establishment of an International Criminal Court, the ICRC stated that:

The applicability of weapons prohibitions to internal conflicts and the prohibitions now clearly attached to the use of such weapons as... biological weapons...in time of non-international armed conflicts is to be related to the more general principle that all means and methods of warfare of a nature to cause superfluous injury or unnecessary suffering are unlawful<sup>153</sup>.

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<sup>149</sup>ICRC, Memorandum on the Applicability of International Humanitarian Law, 14 December 1990, para II, *IRRC*, No. 280, 1991, p. 25.

<sup>150</sup>ICRC, Press Release No. 1658, Gulf War: ICRC reminds States of their obligations, 17 January 1991, *IRRC*, No. 280, 1991, p. 26.

<sup>151</sup>ICRC, Memorandum on Respect for International Humanitarian Law in Angola, 8 June 1994, § II, *IRRC*, No. 320, 1997, p. 504

<sup>152</sup>ICRC, Statement at the Fourth Review Conference of States Parties to the BWC, Geneva, 25 November–6 December 1996

<sup>153</sup>ICRC, working paper on war crimes submitted to the Preparatory Committee for the Establishment of an International Criminal Court, 14 February 1997, p. 29.

### 3:4 MEASURES ON REDUCING THE DANGER CAUSED BY THE USE OF CERTAIN WEAPONS

The measures on reducing the danger caused by the use of certain weapons are laid down in different treaties such as the Nuclear Non-Proliferation Treaty (NPT)<sup>154</sup>, the Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (ENMOD)<sup>155</sup>, the Biological and Toxin Weapons Convention (BTWC)<sup>156</sup>, the Chemical Weapons Convention (CWC)<sup>157</sup>, the Protocol I and II of the Geneva Convention<sup>158</sup> and follow-on agreements like the various Soviet-American (and later Russo-American) nuclear weapons agreements<sup>159</sup>.

Although various measures have been given out by different treaties to eliminate certain weapons especially proliferation of WMDs and other weapons, it is still obvious that international community needs to take more substantial measures in order to combat the threat of WMDs<sup>160</sup>.

There is still a lack of a universal monitoring program which can keep an eye on the states' trading and invention of arms. It is urgent to discover black market that may sell technologies and elements capable to create weapons of mass destruction. Therefore states and NGOs should try their best in order to eliminate informal sectors which trade WMDs. If this is achieved, it will be difficult for especially terrorists to achieve their goals. However, this elimination will certainly not be easy and will require a stricter legislation, stricter control to the nations that may help terrorists in any way but also international cooperation from each and every member states<sup>161</sup>.

Additionally, the creation of an international monitoring system that will eradicate nearly all WMD black markets and terrorists training camps disseminating WMD technology and information, the development of new detection equipment preventing terrorists from transporting WMDs, the implementation of the already-signed relevant Treaties, the enactment of stricter legislation and the

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<sup>154</sup>Entered into force in 1970

<sup>155</sup>Adopted by the Resolution 31/72 of the United Nations General Assembly on 10 December 1976

<sup>156</sup>Entered into force in 1975

<sup>157</sup>Of 30 November 1992

<sup>158</sup>Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I and II), of 8 June 1977

<sup>159</sup>“Preventing the Proliferation of Weapons of Mass Destruction: What Role for Arms Control?”[http://en.wikipedia.org/wiki/List\\_of\\_states\\_with\\_nuclear\\_weapons](http://en.wikipedia.org/wiki/List_of_states_with_nuclear_weapons) Accessed on 23/11/2015

<sup>160</sup>Ibid

<sup>161</sup>“Fighting Terrorism and Weapons of Mass Destruction.”  
[http://en.wikipedia.org/wiki/List\\_of\\_states\\_with\\_nuclear\\_weapons](http://en.wikipedia.org/wiki/List_of_states_with_nuclear_weapons) Accessed on 23/11/2015

creation of consequence management mechanisms are only some of the measures that must be taken into serious consideration<sup>162</sup>.

### 3:5 CONCLUSION

The law of war however, is designed to cover the conduct of military and their military operations by stating what weapons and military tactics can be used in armed conflict; and further by limiting the means and methods of warfare.

Following the rules at hand, it is also a concern of IHL that during wartime violence is prevented or at least reduced in order to avoid unnecessary injuries or causing superfluous injuries to all persons who are not taking part in hostilities such as civilians, wounded, sick and captured combatants.<sup>163</sup>

IHL rules and principles have set number of restrictions or limitation on the choice of means and methods of warfare in which many of the same are found in Additional Protocol I of 1977<sup>164</sup>, whereas others are found on treaties that prohibit or restrict the use of certain specific weapons such as biological and chemical weapons, incendiary weapons, blinding laser weapons, landmines and so forth; and thus many of restrictions and prohibitions of the same are also found in customary international law<sup>165</sup>.

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<sup>162</sup>Ibid

<sup>163</sup>Kathleen, Lawand. *A Guide to the Legal Review of New Weapons, Means and Methods of Warfare*. (ICRC Revised – November 2006) p. 8

<sup>164</sup>Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), 8 June 1977

<sup>165</sup>Customary international law defined as the customary *practice of the state* followed from a legal obligation. The law in question is not written however, it is driven from the general practice of states that accepted as law. Further, to prove the same that, certain rule is custom – one has to show that it is reflected in state practice and that the international community *believes* that such practice is required as a matter of law.

< Jack L. Goldsmith & Eric A. Posner (2d series), *A Theory of Customary International Law*; The Law school, Chicago: The University of Chicago. p. 1 -3,7 >

< Customary international humanitarian law (29/10/2010) <http://www.icrc.org/eng/war-and-law/treatiescustomarylaw/customary-law/overview-customary-law.htm> > Accessed on 23/11/2015

## CHAPTER FOUR

### IHL CHALLENGES ON THE USE OF CERTAIN WEAPONS

#### 1:1 INTRODUCTION

International humanitarian law (IHL) is the law that has originated from customary practices of armies as they developed over all ages and on all continents<sup>166</sup>. It is also certain that the law in question aim at setting up the international rules that limits the effects of armed conflict by setting restrictions on the means and methods of warfare in the protection of persons who are not taking part in hostilities and who are taking part of the same<sup>167</sup>.

Further, among other things, it can be born in mind that, at all times parties to an armed conflict are unlimited on the choice of their means and methods of warfare, they are absolutely unlimited<sup>168</sup>; however the case that their unlimited, still the parties to armed conflict are obliged not to employ weapons or projectiles that would cause superfluous injuries or unnecessary injuries to the people<sup>169</sup>.

It is a subject of concern that, humanitarian laws particularly on the limitation of the means and methods of warfare the international laws governing armed conflict or the ways of waging the war divulge the idea that (at all times) civilians have to be spared not to suffer the consequence of the war as for the loss of their lives and properties as well; and as for the consideration of the same – humanitarian principles especially the principle of distinction requires that Parties to an armed conflict to distinguish at all times between combatants and military objectives on one hand, and civilian persons and objects on the other; and accordingly attack only legitimate targets Moreover, upon the limitation on the use of means and methods of warfare for the protection of properties and individuals, the laws also went further by protecting the environment and spare the same. Article 35 (3) <sup>170</sup>states that:

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<sup>166</sup>Jean-Marie, Henckaerts. And Louise, Doswald-Beck. *Customary International Humanitarian Law - Volume I: Rules*, 3rd (P) 2007, Cambridge University Press – (United Kingdom, 2005)

<sup>167</sup>Rikke, Ishøy. *Handbook on the Practical Use of International Humanitarian Law*. (2nd Ed 2008); Published by Danish Red Cross

<sup>168</sup>The Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), 8 June 1977 [ hereinafter Additional Protocol I] Article 35 (1)

<sup>169</sup>*Ibid* Article 35 (2); Rule 70 of the Customary International Humanitarian law also provides the same by stating that; “The use of means and methods of warfare which are of a nature to cause superfluous injury or unnecessary suffering is prohibited”.< Jean-Marie H and Louise Doswald-B (2005) p. 237 >

<sup>170</sup>Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), of 8 June 1977

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

Therefore, it is quite clear that, parties to an armed conflict are required to employ means and methods of warfare that are reasonable and proportional to another adverse party’s means and methods of warfare in consideration of human lives, properties and preservation of environment as on the avoidance to cause a widespread and a long-term consequences of the war on the land.

**However IHL faces different challenges on the use of certain weapons as explained below:**

#### **4:1:1 NEW TECHNOLOGIES OF WARFARE**

The term “technology” can simply be defined as the application of scientific knowledge for the practical purpose; or the branch of knowledge that deals with the creation and use of technical means and their interrelation with life, society, and the environment [...] <sup>171</sup>. Therefore, based on the meaning of “technology”, the term “military technology”, can then be referred to mean the application of scientific knowledge on military equipments such as guns, Autonomous weapons systems <sup>172</sup>, remote-controlled weapon systems, UAVs, Planes, lethal autonomous robots (“LARs”), Robots and so forth.

Therefore, despite the fact that parties to an armed conflict are free to choose means and methods of war, the technological advancement of the said means or methods of warfare are subject to the customary rules and laws of international humanitarian laws. Further, considering to the outlined military equipments there above, the most notably current military technologies on autonomous and remote controlled weapons includes; the introduction of Lethal Autonomous Robots (LARs), Unmanned Aerial Vehicles (UAV) and Remote Controlled weapons, as discussed hereu

<sup>171</sup><http://dictionary.reference.com/browse/technology> Accessed on 22/11/2015

<sup>172</sup>This is the technological system that is applied onto automated weapons which basically enable the specific weapon to select and fire upon targets on their own, without any human intervention. The absence of human intervention actually means that the said weapon acts autonomously bases on artificial intelligence. The artificial intelligence is basically created by arithmetic calculations and programming of the robot, it further have to be born in mind that, for these kind of weapons – it is only a program run the weapon unlike the remote-controlled weapons. These kid of weapons may include MQ-9 Reaper (General Atomics MQ-9 Reaper), UAV (unmanned aerial vehicle) or Drone <http://www.reachingcriticalwill.org/resources/fact-sheets/critical-issues/7972-fully-autonomousweapons> Accessed on 22/11/2015

[https://www.youtube.com/watch?v=\\_FdWtmJ4BXM](https://www.youtube.com/watch?v=_FdWtmJ4BXM) Accessed on 22/11/2015

< <http://www.chathamhouse.org/Autonomous> > Accessed on 22/11/2015

#### 4:1:1:1 LETHAL AUTONOMOUS ROBOTS (LARs)

This is one of the applied scientific knowledge that has resulted to the creation or an introduction of the military weapon called “Lethal autonomous robots”. LARs is a kind of military weapon system that acts autonomously thus means; once activated it can select and engage targets without any human intervention. Certainly, the created autonomous weapons have been created to act or conduct their acts based on the artificial intelligence they have, the artificial intelligence they possess is basically made through the arithmetic calculations and programming of the robot.

Among other things, it is quite clear that the introduced weapons lack human intelligence and human rational judgment; and thus the use of the same leads to pinpoint or post some of fundamental questions and challenges on the light of human right law and international humanitarian law.

The questions in particular may include the question of the said autonomous weapons such as LARs to complying with the requirements, rules and principles of international humanitarian law (IHL) and the standard of protecting life under international human rights law (IHRL); other questions include the machines' delegation to choose between “death” and “life” over human being(s) and accountability of the same in case of violation of IHL or IHRL<sup>173</sup> However, with various considerations upon the use of autonomous weapon especially Lethal autonomous robotics, the United Nations, General Assembly<sup>174</sup> has banned the use of the same by the reason that there is no clear necessary skills to the robots in question to adhere the IHL principles including the principle of discrimination between combatants and innocent civilians<sup>175</sup>, further it was stated that their deployment is strictly not acceptable simply because system of the same should not be given the power of life and death over human beings. Furthermore, based on the same line various campaigning to stop the use of autonomous weapons (Killer Robots) have taken place it includes the Human rights concerns over killer robots campaigning<sup>176</sup>.

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<sup>173</sup>It is considered that, the autonomous weapons (Letha Autonomous Robots) cannot observe the IHL andIHRL principles satisfactorily based on their nature. And thus the use of the same post a lot of unanswered questions. < Noel, Sharkey, E. *The inevitability of autonomous robot warfare*. International Review of the Red cross. (2012) p. 788.>

<sup>174</sup>Human Right Council (April 2013) Twenty-third session., Report of the Special Rapporteur on extrajudicial, summary or arbitrary executions, ChristoffHeyn<[http://www.ohchr.org/Documents/HRBodies/HRCouncil/RegularSession/Session23/A-HRC-23-47\\_en.pdf](http://www.ohchr.org/Documents/HRBodies/HRCouncil/RegularSession/Session23/A-HRC-23-47_en.pdf)> Accessed on 13/09/2014

<sup>175</sup>Acheson, R. and Fihn, B. *Fully Autonomous weapons* (2014) <http://www.reachingcriticalwill.org/resources/factsheets/critical-issues/7972-fully-autonomous-weapons> Accessed on 22/11/2015

<sup>176</sup>May 29, 2014: <http://www.stopkillerrobots.org/2014/05/hrc2014/> Accessed on 22/11/2015



Therefore, based on the notion of the development and use of lethal autonomous robots, the UN through Human Rights Commission post a concern that, weapons of this kind in question should have to be ban; and the special reporter recommended that States are obliged to establish national moratoria that will deal with LARs, and high level of penal sanction on the use of the same should be adopted<sup>177</sup>.

#### 4:1:1:2 UNMANNED AERIAL VEHICLES (UAV)

This is another advanced military weapon; which also known as Drone or Remotely Piloted Aircraft (RPA). It is an aircraft that does not have a pilot on the board. It is certain that, kind of weapon in questions can be remotely controlled aircraft by an external operator on the ground or they can fly autonomously based on the preprogramed flight plans of the automation systems<sup>178</sup>.

The UAVs are deployed for military and special operations or missions, like reconnaissance, attacks and other dangerous military missions. However among other things the UAVs are also used in civil applications such as Policing, firefighting and non-military security like surveillance of pipeline and so forth<sup>179</sup>.

Among other things, there are different categories of UAVs; these may include the Reconnaissance, Target and decoy, Combat, Research and development and Civil and Commercial UAVs<sup>180</sup>. Further, despite of the categorization they have, UAVs are of different kinds such as: Global Hawk, Predator A, Predator B, X-47A X-47B, Mariner, Altair, Fire Scout, ER/MP UAS, Hunter, I-GNAT, Army IGNAT ER and so forth<sup>181</sup>.

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<sup>177</sup>Christof Heynes (May 2014) UN Special Rapporteur, UNHR office of the High Commissioner  
< <http://www.ohchr.org/EN/NewsEvents/Pages/ACallforamotoriumonthedevelopmentrobots.aspx>>  
Frank, Sauer. *Banning Lethal Autonomous Weapon Systems (LAWS): The way forward* (June 13, 2014)  
<<http://icrac.net/2014/06/banning-lethal-autonomous-weapon-systems-laws-the-way-forward>> Accessed on 22/11/2015

<sup>178</sup><http://theuav.com/> Accessed on 22/11/2015

<sup>179</sup><http://www.airpower.maxwell.af.mil/airchronicles/apj/apj91/spr91/4spr91.htm> Accessed on 22/11/2015

<sup>180</sup>Jia, Luo. *Affective Computing and Intelligent Interaction: Advances in Intelligent and Soft Computing*. Springer Heidelberg (New York, 2012) p. 70

<sup>181</sup>Hohn, Hamilton. *UAVs Unmanned Aerial Vehicles*. (P) ABDD Publishing Company. North Mankato, (USA 2012)  
<Photos of UAVs are available at: [http://theuav.com/uav\\_photos.html](http://theuav.com/uav_photos.html)> Accessed on 22/11/2015

#### 4:1:1:3 REMOTE CONTROLLED WEAPONS (RCWS)

It is kind of military weapon system that use remote, this kind of weapon system can be installed on vehicles, sea, air-bases combat platform and on ground combat. Kinds of weapons with remote system may include, TRAP T-360, Gladius 12<sup>182</sup>, TRAP T-250DFS, TRAP T-250D, TRAP<sup>183</sup>, T-360FS<sup>184</sup>, T-360 on UGV<sup>185</sup>, Escalation of Force Platform EOF2, TRAP T192 Sniper Kit, "WASP" Wide Area Surveillance and Protection with a STING, M240 B, and so forth<sup>186</sup>.

#### 4:1:1:4 OBSERVATION

It is undisputed facts that, the development of military technologies on means and methods of warfare have to adhere and embrace the existing rules and principles of International humanitarian law and human right law. However, with regarding to customary rules of IHL in question, it can be further been observed that, some of the technology or technologies in particular does not embrace the existing laws following nature of their application before the eyes of IHL; therefore, one can be in apposition to say that the same have to be reviewed between the line of the law so as to measure their legality and legitimate on the ambit of the laws governing the same.

#### 4:1:2 THE USE OF EXPLOSIVE WEAPONS IN DENSELY POPULATED AREAS

In 2011, the International Committee of the Red Cross (ICRC) stated that the use of explosive weapons with a wide impact area should be avoided in densely populated areas due to the

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<sup>182</sup>Gradius 12 is a remote controlled weapon, its station carriage various options of gun system including, 12.7 mm Machine gun - NATO / Russian caliber, 7.62 mm Machine gun - NATO / Russian caliber and Grenade launcher AGS-17. <Coordinated Direct Investigation Survey (CDIS) Review 2/ 2014 : <http://en.msline.cz/index.php?page=cdis-review&cislo=cdis-review-2-2014&clanek-remote-controlledweapon-station-gladius-12>> Accessed on 23/11/2015

<sup>183</sup>[http://www.dtic.mil/ndia/2007gun\\_missile/GMThurGS/McConnellPresentation.pdf](http://www.dtic.mil/ndia/2007gun_missile/GMThurGS/McConnellPresentation.pdf)

<sup>184</sup>This is the kind of weapon station device, that controls movements and firing. The T360FS weapon operates through the detection sensors that send signals to the command center for activation, thereby it moves in a direction of the incident and start firing. <Precision remotes: <http://www.precisionremotes.com/facility-infrastructure-security/t360fs-weaponstation/>><Sentry Gun (March 14, 2014) – Video You Tube:[https://www.youtube.com/watch?v=v\\_fFsGp1y\\_Q](https://www.youtube.com/watch?v=v_fFsGp1y_Q)> Accessed on 23/11/2015

<sup>185</sup>Army Guide (2008) : <http://www.army-guide.com/eng/product4909.html> Accessed on 23/11/2015

<sup>186</sup><http://www.casr.ca/101-army-vehicle-rcws.htm> Accessed on 23/11/2015<Pictures of Remote Controlled Weapons are available at [https://www.google.com/search?q=kinds+of+Remote+Controlled+weapons&biw=1552&bih=741&tbn=isch&tbo u&source=univ&sa=X&ei=incXVPKRIM\\_IaLTrgtgG&ved=0CDgQsAQ](https://www.google.com/search?q=kinds+of+Remote+Controlled+weapons&biw=1552&bih=741&tbn=isch&tbo u&source=univ&sa=X&ei=incXVPKRIM_IaLTrgtgG&ved=0CDgQsAQ)> Accessed on 23/11/2015

significant likelihood of indiscriminate effects and despite the absence of an express legal prohibition on specific types of weapons<sup>187</sup>.

On 24 and 25 February 2015, the ICRC convened a meeting of experts titled *Explosive Weapons in Populated Areas: Humanitarian, Legal, Technical and Military Aspects*. The meeting brought together government experts from 17 States<sup>188</sup> and 11 individual experts, including weapons experts and representatives of United Nations agencies<sup>189</sup> and nongovernmental organizations (NGOs)<sup>190</sup>.

The objective of the expert meeting was to facilitate a facts-based discussion and exchange of views among government and independent experts on this important humanitarian issue – in particular on the challenges and the potential opportunities in the choice of means and methods of warfare – with a view to minimizing incidental civilian harm when a legitimate target is attacked in a populated area.

The ICRC stated that the use of explosive weapons with a wide impact area should be avoided in densely populated areas, due to the significant likelihood of indiscriminate effects.

Examples of the case law of the ICTY provides an indication of what has been deemed to be legal or illegal in specific circumstances, and presents the frame of reference that military and technical experts use to assess the appropriateness and acceptability of explosive weapon use in populated areas are;

**The *Martić* case<sup>191</sup>**, the ICTY considered the use of M-87 Orkan multiple-barrel rocket launchers (MBRLs) to fire unguided rockets containing submunitions (288 per rocket) into the city of Zagreb. In assessing whether the attack was indiscriminate, the Trial Chamber highlighted, *inter alia*, the following factors: the dispersion error of the rockets, which increased with the firing range; the 2-hectare area of dispersion of the submunitions; and the 10-metre lethal range of each of the 420 steel pellets (ball bearings) contained within each submunition. The Chamber

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<sup>187</sup> ICRC, *International Humanitarian Law and the Challenges of Contemporary Armed Conflicts*, report to the 31st International Conference of the Red Cross and Red Crescent, Geneva, 28 November-1 December 2011 (2011) pp. 40-42. Available at <https://www.icrc.org/eng/assets/files/red-cross-crescent-movement/31st-international-conference/31-int-conference-ihlchallenges-report-11-5-1-2-en.pdf>. Accessed on 23/11/2015

<sup>188</sup> Afghanistan, Austria, China, Colombia, Israel, Lebanon, Mexico, the Netherlands, Nigeria, Norway, the Philippines, the Russian Federation, Serbia, Switzerland, Uganda, the United Kingdom, and the United States.

<sup>189</sup> United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA) and United Nations Office for Disarmament Affairs (UNODA).

<sup>190</sup> Article 36, Human Rights Watch and Save the Children (UK).

<sup>191</sup> *Prosecutor v. Martić*, Case No. IT-95-11-T (ICTY, Trial Chamber), 12 June 2007

characterized the M-87 Orkan as a “non-guided high dispersion weapon” that was incapable of hitting specific targets. Accordingly, the Chamber held that the Orkan was an “indiscriminate weapon” whose use in a densely populated area would result in a high number of civilian casualties. The Trial Chamber’s legal findings in the *Martić* case are ambiguous: it is unclear whether the M-87 Orkan was found to be indiscriminate *as such* – that is, in all circumstances – or only in specific circumstances, for example in populated areas or when launched from the extreme end of its range. In the view of the speaker, it remains open as to what the Tribunal’s finding implies for the legality of using long-range, unguided rockets or MBRLs in populated areas generally.

Also the ICTY case of *Galić*<sup>192</sup>, which dealt with the use of 80mm and 120mm mortars to attack military objectives in Sarajevo, including an attack on the Markale market on 5 February 1994. The Chamber primarily concerned itself with the degree of accuracy of mortars, which was an important factor in determining whether civilians were directly targeted, whether they were the victims of indiscriminate attacks, or whether they could be considered incidental civilian casualties. The Trial Chamber heard from a number of expert witnesses who expressed differing views on the accuracy of mortars: according to one expert, mortars are extremely inaccurate and their use in the circumstances was inappropriate; according to another expert, mortars are accurate to within 40 metres of the target, and it is possible to hit a military objective with the first round. Relying on the latter view, the Trial Chamber concluded that in respect of the attack on the Markale market, the market was deliberately targeted. In contrast, the Appeals Chamber<sup>16</sup> found that an experienced mortar crew could hit only within 200 or 300 metres of their target with the first round. Even if the forces were aiming for a military objective in the vicinity of the market (and not the market itself), the Chamber held, the shelling constituted a direct attack on civilians as the forces were aiming for a target within a civilian area.

#### **4:1:2:1 OBSERVATION**

The key challenge facing the ICRC in its protection work is gaining timely access to affected areas in order to document incidents involving the use of explosive weapons in populated areas. Another challenge is the fact that victims of the use of explosive weapons in populated areas will generally not know what kind of weapon was used. In response, the ICRC has developed tools to help its

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<sup>192</sup>*Prosecutor v. Galić*, Case No. IT-98-29 (ICTY, Trial Chamber), 5 December 2003

teams determine the specific weapon used, linked to its effects on civilians and civilian infrastructure when used in populated areas. However, even with the help of these tools – and even where additional weapons expertise is available – the ICRC faces challenges in gaining precise information on the weapon used, how it was used, and what its effects were, as often scenes are contaminated or cleaned up quickly following incidents<sup>193</sup>.

## 4:2 CONCLUSION

In considering to the advanced or modern military technology it is a point of concern of IHL to test credibility and legality of the same before adopting them or employing them in an armed conflict; and this is for the purpose of assessing them as to whether they follow the established rules of means and methods of warfare as the customary international humanitarian laws requires.

Consequently, in regarding to the subject of means and methods of warfare in contemporary military technology Article 36 of Additional Protocol I of 1977 provides:

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

Based on the provision at hand, it is clear that the same prevent the use of weapons that would violate international law in all circumstances and it further impose restrictions on the use of weapons that would violate the said law in some circumstances, by determining their lawfulness before they are developed, acquired or otherwise incorporated into a State’s arsenal<sup>194</sup>.

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<sup>193</sup>ICRC, *Professional Standards for Protection Work Carried Out by Humanitarian and Human Rights Actors in Armed Conflict and Other Situations of Violence* (2nd ed., 2013). Available at <https://www.icrc.org/eng/resources/documents/publication/p0999.hum>. Accessed on 23/11/2015

<sup>194</sup>Kathleen, Lawand. *A Guide to the Legal Review of New Weapons, Means and Methods of Warfare*; (ICRC Revised – November 2006) p. 4

## CHAPTER FIVE

### CONCLUSION AND RECOMMENDATION

#### 5.1 INTRODUCTION

This is the conclusion and recommendation part of the study in particular; it gives the broad observation concern an assessment of the laws of armed conflict on matters pertaining the limitation of means and methods of warfare on reflection of the same to the contemporary military technology.

#### 5:2 CONCLUSION

One of the achievements is that different various rules, laws and conventions that deal with armed conflict have been adopted or created to enable the conflicting parties to adhere and embrace the same<sup>195</sup>.

However, due to the technological advancement on military means and methods of warfare some rules, laws, and humanitarian principles have been seen to be violated following the application of the new military means and methods of warfare<sup>196</sup>. It is quite clear that, anticipating the future by advocating for the development and technology leads to the adherence and observation of the true nature of the society being changing from time to time.

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<sup>195</sup>It is the rule of law and general practice that, the states' obligations to adhere and embrace International law whether it be Treaty, Convention, Charter, Protocol and so forth, comes along soon after signing and ratifying the said treaty. The binding nature of International law can certainly understood to be consensual and contractual in nature; thus the same can be projected through the operation of the Latin maxim *Pactasuntservanda*. The maxim in question has been translated following the provision of Article 26 of the Vienna Convention on the Law of Treaties, 1969 – which provides the same by stating that, “Every treaty in force is binding upon the parties to it and must be performed by them in a good faith”.

< Harold Hongju Koh. *Why Do Nations Obey International Law?*; Yale Law School Legal Scholarship Repository, The Yale Journal Vol. 106:2599, January 1997. p.2599 - 2601: [http://digitalcommons.law.yale.edu/cgi/viewcontent.cgi?article=2897&context=fs\\_papers](http://digitalcommons.law.yale.edu/cgi/viewcontent.cgi?article=2897&context=fs_papers) (Accessed on 17/11/2015) >

< J. Craig Barker (2014), Mechanism to create and support Conventions, Treaties and Other Responses; University of Reading, UK: <http://www.eolss.net/eolssamplechapters/c14/e1-44-01/E1-44-01-TXT-02.aspx#5>. Mechanisms to Create and Support Conventions and Treaties (Accessed on 17/11/2015) >

<sup>196</sup>The Application of Article 35 of Additional Protocol I, states clearly that parties are under the obligation to embrace the laws of war especially when employing new weapons, means and methods of warfare in a conflict with a purpose not to cause superfluous injury or unnecessary suffering or not to cause widespread, long-term and severe damage to the natural environment. However – this is not the case, the World has witnessed different introduction and employment of violate weapons which basically breach or breaches the laws of armed conflict; and this may include an Automated military weapons and Remote controlled weapons, Chemical and Biological weapons and so forth.

It can be noted that, it is not quite true that every changes in the society comes for good, simply because there are other changes are drastically not helpful and useful for the wellbeing of the society; for example the risk of exposure to the effects of Weapons of Mass Destruction (WMD) is real.

### 5:3 RECOMMENDATION

First, IHL is insufficient to regulate some technologically advanced weapons system, and that the current legal categorization is challenged by the emergence of autonomous weapons systems that possess autonomous capabilities. Insofar as both autonomous and remote weapons systems do not adequately fit into current categories of IHL, it may be that this system should constitute a novel common category. Both autonomous and remote weapons systems do not fit squarely within the legal understanding of a weapon, and create subtle, yet fundamental, changes to the current legal understanding of means and methods of warfare<sup>197</sup>.

It may therefore be inappropriate to expand the existing categories to encompass these advanced weapons system. Instead, it is likely that new rules will need to be developed to ensure that the potential superiority, in humanitarian terms, of this advanced weapons system is harnessed and that concomitant responsibility for their use is firmly established to incentivize compliance and to forestall allegations of impunity. The need to establish architecture of responsibility for the use of autonomous and remote weapons system becomes especially acute where their use leads to allegations of international crimes<sup>198</sup>.

Second, no current strategy guarantees full protection against risks from Weapons of Mass Destruction (WMD) such as nuclear, biological and chemical weapons. There is no magic pill, no impregnable shield. The best possible defense is a joint approach in which political, Nuclear, Biological and Chemical defensive, and medical measures mutually complement and enhance one another, therefore the following points are recommended in order to reduce the danger caused by the weapons of mass destruction;

- The risk of use and proliferation of WMD should be ruled out as far as possible by political measures, in particular disarmament and arms control. These measures are laid down in the

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<sup>197</sup>See Hin-Yan Liu, 'Leashing the corporate dogs of war: the legal implications of the modern private military company', in *Journal of Conflict and Security Law*, Vol. 15,2010, pp. 141-168; and Hin-Yan Liu, *Law's Impunity: Responsibility and the Modern Private Military Company*, Hart, Oxford, 2014 (forthcoming)

<sup>198</sup>Ibid

respective treaties and follow-on agreements. They should be supplemented by export control measures for dual-use materials that ought only to be traded with countries that comply with the respective treaties and allow for inspections<sup>199</sup>.

- Because political measures do not offer complete protection, the military and civilian technological activities (dual-use problem) of “rogue states”, along with the activities of suspicious persons and organizations, must continuously be monitored, analyzed, and evaluated (intelligence) in an attempt to identify activities conducted for non-peaceful purposes. Strategic and operational intelligence increase the chances of preventing WMD use and of developing effective countermeasures<sup>200</sup>.
- The armed forces must be prepared to find and destroy enemy WMD, including incoming theater attack missiles (active NBC defense). Furthermore, they must address all of the three categories of Nuclear, Biological and Chemical weapons (NBC) and develop the capability to sustain operations in an NBC environment for more than a few hours and preserve their combat strength (passive NBC defense [ Passive NBC defense should be guaranteed throughout the entire operational spectrum by a balanced system, which includes seven elements : individual protection, collective protection, NBC medical defense, the hardening of defense materiel, NBC reconnaissance, decontamination, NBC evaluation, and hazard forecast. ] ). NBC defense capability is needed not just tomorrow but today. It must be guaranteed throughout the entire operational spectrum by a balanced system of NBC defense measures. This must be reflected by manpower, training, and equipment<sup>201</sup>.
- The medical services must develop the capability of protecting medical personnel at work, patients during treatment and evacuation, and sophisticated medical material against NBC exposure. Failure would present a major obstacle to military operations in an NBC environment and may seriously limit the options available to political and military decision-makers. Since Nuclear, Biological or Chemical defense cannot guarantee complete protection against exposure, Nuclear, Biological or Chemical medical defense

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<sup>199</sup>Commission on Conventional Armaments (CCA), UN document S/C.3/32/Rev.1, August 1948, as quoted in UN, Office of Public Information, *The United Nations and Disarmament, 1945-1965*, UN Publication 67.1.8, 28

“Basic Provisions of the Military Doctrine of the Russian Federation.” November 1993, available at [www.fas.org/nuke/guide/russia/doctrine/russia-mil-doc.html](http://www.fas.org/nuke/guide/russia/doctrine/russia-mil-doc.html) accessed on 23/11/2015

<sup>200</sup>Torsten Sohns and Victor A Voicu (eds), *Protection Against Weapons of Mass Destruction* ( Published by Springer, United Kingdom 2012) 0792358031/ 9780792358039 at page 150 available at [www.library.fes.de/fulltext/id/00714014.htm](http://www.library.fes.de/fulltext/id/00714014.htm) Accessed on 23/11/2015

<sup>201</sup>Ibid



capabilities must be available to maintain and restore the health of Nuclear, Biological or Chemical-exposed personnel; clarify the causes of unusual diseases and deaths, for example, to distinguish natural from other outbreaks; advise political and military decision-makers. Expert groups and their budgets must be augmented in order to provide Nuclear, Biological and/or Chemical medical defense training for all military doctors and guarantee Nuclear, Biological or and Chemical medical defense readiness. Medical considerations must increasingly include not only the acute, often lethal effects of Nuclear, Biological or Chemical weapons, but also the long-term effects of low-dose Nuclear, Biological or Chemical exposure. This constitutes a substantial increase in the qualitative and quantitative requirements placed on the medical service<sup>202</sup>.

- Both civilian authorities and the armed forces must be prepared to take any necessary action to avert hazards in the event of threatened or actual use of Weapons of Mass Destruction. Productive cooperation between all government bodies and their resources must be guaranteed. To this end, the civilian and military authorities must keep each other informed about their capabilities, and complementary action by civilian authorities and the armed forces must be planned, taught, and practiced together. Especially as far as biological weapons are concerned, the armed forces should provide a special training program for police officers, firefighters, key law enforcement, and health care personnel as well as relevant personnel from government and nongovernment aid organizations (e.g., the Red Cross). The management of situations involving Nuclear, Biological or Chemical hazards in the civilian sector may require the armed forces' Nuclear, Biological and or Chemical defense and Nuclear, Biological or Chemical medical defense expertise, for it may be the only national resource available to decision-makers for appropriate advice<sup>203</sup>.
- Armed forces of the future must have the capability to protect themselves against Weapons of Mass Destruction while the civil population must be afforded appropriate protection. Where precautionary measures fail, the military medical and civil healthcare services must be able to restore the health of those who have been exposed. State-of-the-art equipment and procedures, together with appropriately trained personnel, need to be in place.

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<sup>202</sup> Ibid

<sup>203</sup> Ibid at page 151

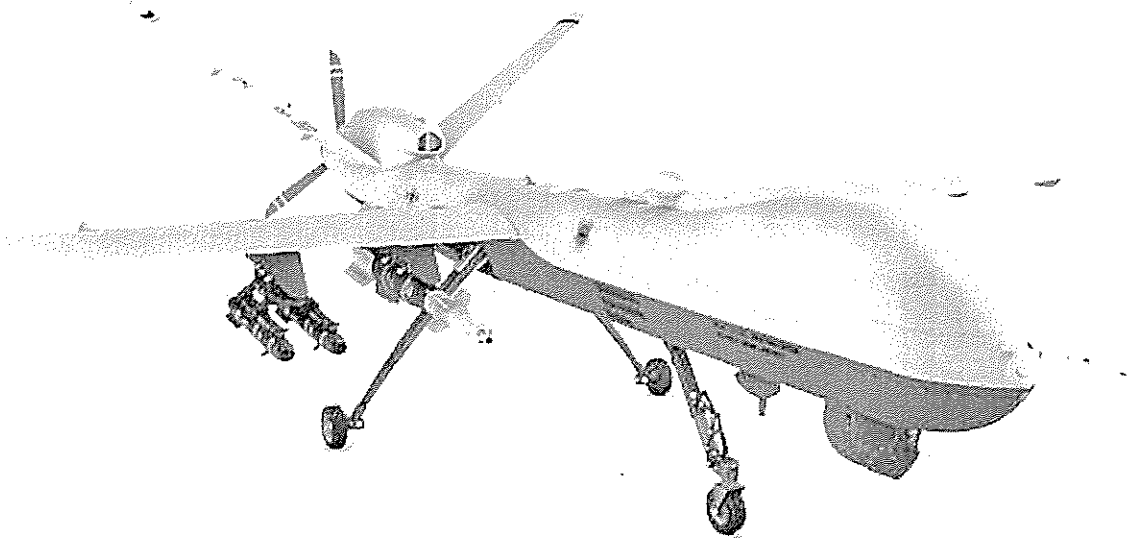
Armed forces that do not have appropriate Nuclear, Biological or Chemical defense and medical defense capability cannot honor their obligations within an alliance. Nor will they be able to provide effective assistance should their own country find itself under Nuclear, Biological or Chemical threat. As the threat from Weapons of Mass Destruction increases, the availability of appropriate medical capabilities plays an increasingly important role in a country's defense<sup>204</sup>.

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<sup>204</sup> Ibid at page 152

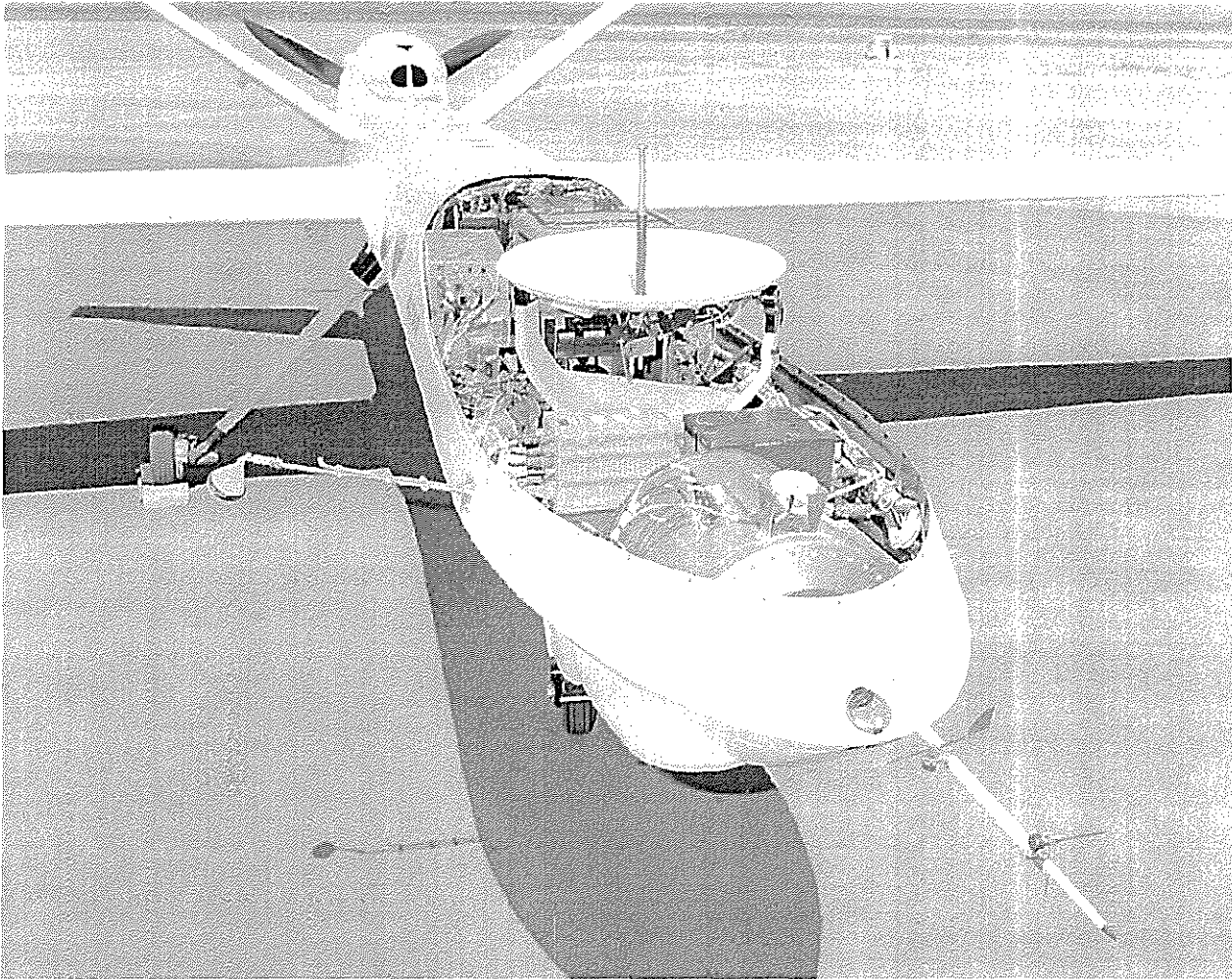
## APPENDICES

### Appendix I Unmanned Aerial Vehicles



*Figure 1 MQ1 Predator*

This is the UAV Drone Aircraft 3D model. It has Synthetic Aperture radar, 360 degree video Cameras, over-the horizon capabilities, and forward looking infra-red with Four (4) Cylinder gas engine



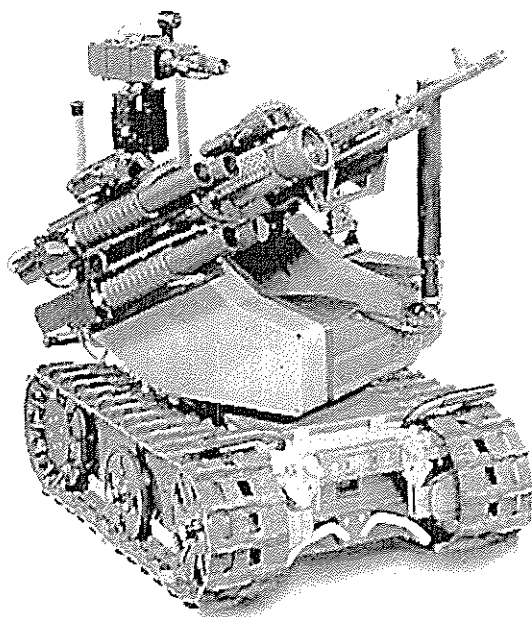
*Figure 2 Predator B*

This is the Predator B or “Predator B-001”, it first flew on February 2001; and it is installed with Satellite antenna and sensors of a NOAA-NASA.

The Predator B includes the following features, an endurance of over 27 hours, speeds of 240 KTAS and it can operate up to 50,000 feet. Among other things, predator B is able to take multiple mission aircraft, it is configured with a variety payloads to include Electro Optical/Infrared

(EO/IR), Lynx® Multi-mode Radar, multi-mode maritime surveillance radar, Electronic Support Measures (ESM), laser designators, and various weapons packages<sup>205</sup>.

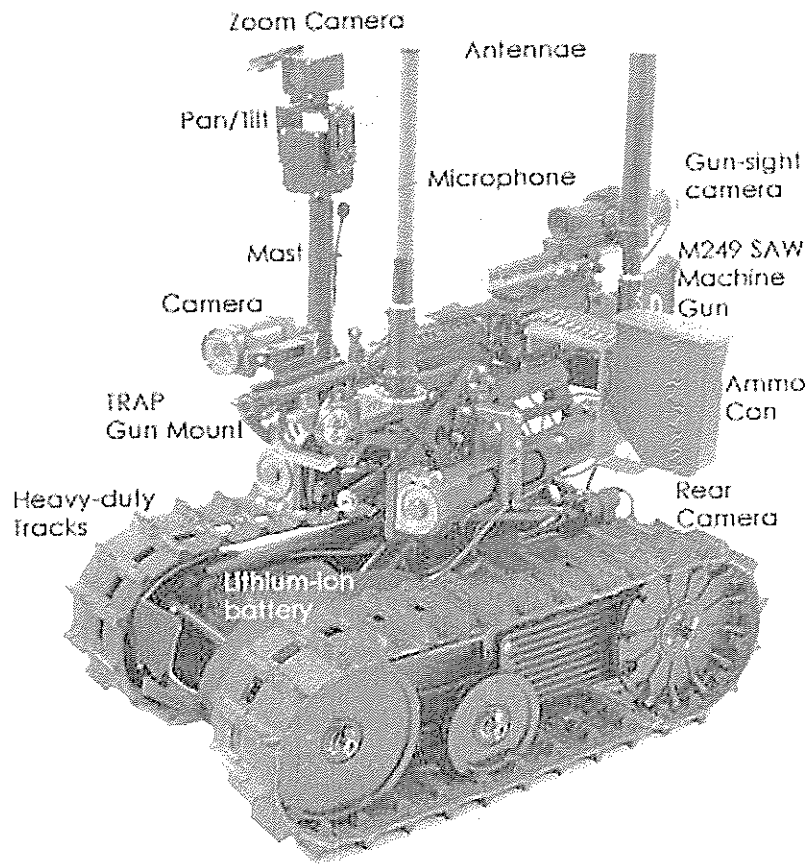
## Appendix II Lethal Autonomous Robots



*Figure 3 Small Talon mobile Robot*

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<sup>205</sup>General Automics, Aeronautical (2014), [http://www.ga-asi.com/products/aircraft/predator\\_b.php](http://www.ga-asi.com/products/aircraft/predator_b.php)



*Figure 4 Assault Talon*

Figure 3 and 4 are autonomous robotic weapon called TALON<sup>206</sup>

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<sup>206</sup>Joel Baglole (2014) TALON - Multipurpose Robot: <http://usmilitary.about.com/od/weapons/a/talonrobot.htm>  
Accessed on 23/11/2015



*Figure 5 Crusher – UGCV*

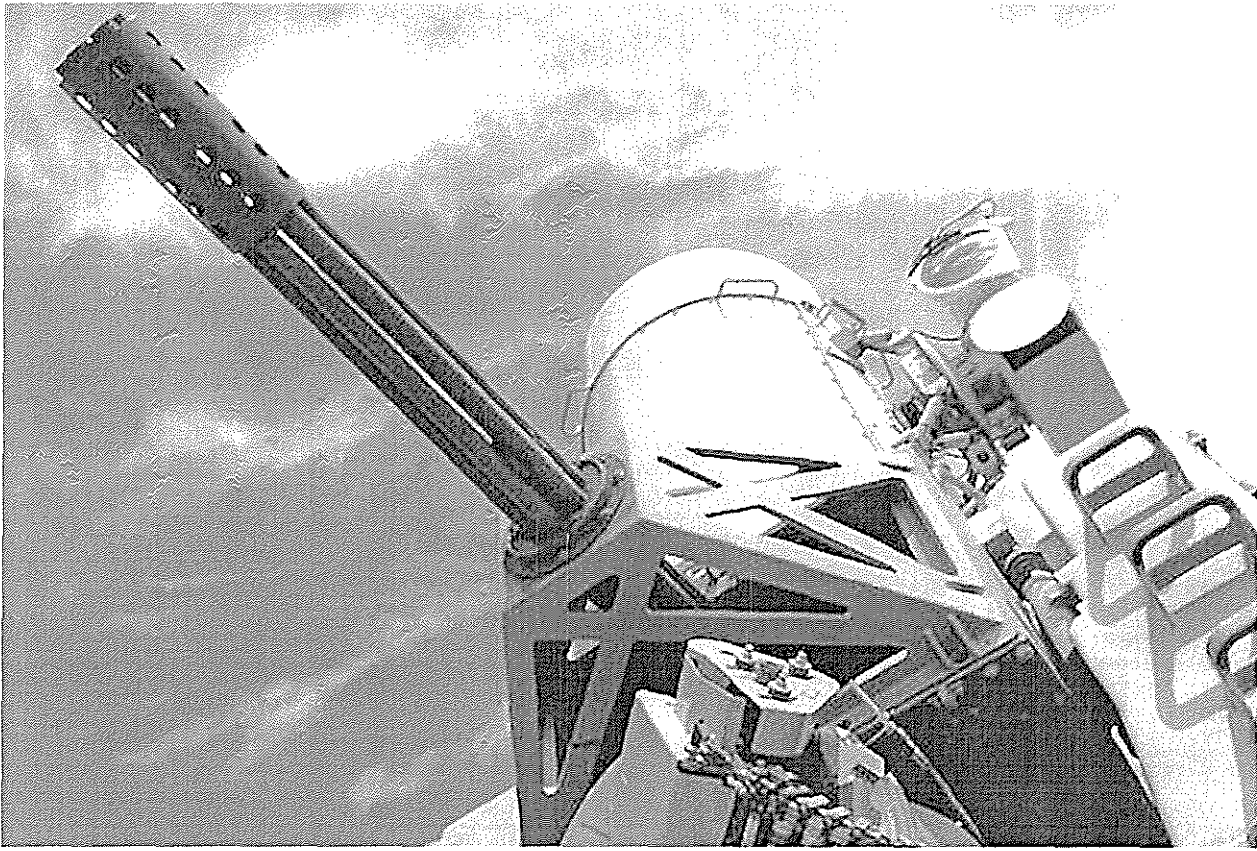
This is an Autonomous Robot Vehicle called „Crusher” or Unmanned Ground Combat Vehicle (UGCVC). It has six (6) wheels 6.5 ton autonomous vehicle combining high off road mobility and autonomous mission handling capabilities.

Further it is a robot that is capable of maneuvering through ditches, walls, streams and even other vehicles whilst raining down a hail of bullets against its enemies<sup>207</sup>. Crusher is designed to work alone (autonomously) with the ability to take any mission imaginable. It has the ability to find the enemy and destroy the same autonomously without any human intervention, it can run quietly when the engine is off and, among other things, the Crusher equipped with sensors that it takes data and sense the same to computer which interpret them and decide which appropriate act has to be taken as for the safety of it and accomplish the mission<sup>208</sup>

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<sup>207</sup><http://www.hightech-edge.com/crusher-darpa-autonomous-robot-iphone-xbox-controller/1417/>

<sup>208</sup>Ultimate Weapons- The Crusher (October 10, 2010) : <https://www.youtube.com/watch?v=WOD5NF48byo>

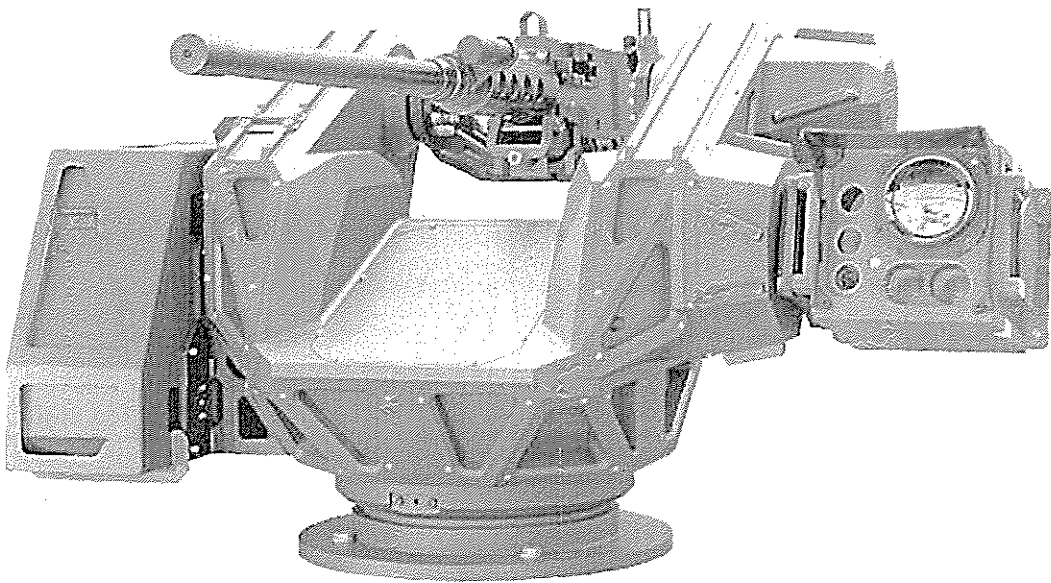


*Figure 6 Phalanx CIWS*

This is Close-in weapon system (Phalanx CIWS) it is a lethal autonomous robot that is installed on ships, it is kind of a weapon system used for defense against anti-ship or rocket missiles. CIWS uses a built-in radar that track a threat and act automatically by firing the attacking object.



**Appendix III Remote Controlled Weapons**



*Figure 7 Gradius 12*



*Figure 8 TRAP*

TRAP is a lightweight, remote controlled weapon – it can be installed on a vehicle and can also be used on the ground. The weapon is designed to carry various weapons includes M4, M16 to M-249 SAW, M-240 and the SR-25 sniper rifle up to the 0.50 Caliber M-82A-1M Barret high power sniper rifle. The system that run the weapon is imaging sensors that enable the same to be located at a distance of up to 109 yards (100 m') from the T-250D controller.

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