

CHAPTER ONE

INTRODUCTION

A. Background

At the beginning of the last century, weapons such as tanks, air warfare, and the long-range missile have been used by soldiers participating in the hostilities. Weapons are becoming more and more advanced, and humans are moving further away from the battlefield. It can be said that weapons are becoming more and more autonomous. The trend towards autonomous functions in weapons is not new. During the Second World War, the Germans used *Zaunkönig Torpedoes*.¹ These weapons are acoustic torpedoes and once launched, the torpedo could find its target by using sound waves. Much has changed since then. Currently, there are weapons where a pilot is sitting in an operating room, and the pilot can control an Unmanned Aerial Vehicle (UAV) better known as “drone” to conduct lethal targeting operations on the other side of the world. Today’s weapons systems require some human intervention, but the next step about weapons systems will be removing the human from the process altogether.²

In the earlier few years, a lot of wars and conflicts have been going on, for example, the war in Iraq, the fight against ISIS. Everyone has taken knowledge of these wars and conflicts due to information and

¹ Chantal Grut, 2013, “The Challenge of Autonomous Lethal Robotics to International Humanitarian Law”, *Journal of Conflict & Security Law* Vol.18, No.1, Oxford, Oxford University Press, p. 5.

² *Ibid.*

communication technology.³ The following time by time, the rapid development of technology in the world has a huge impact in all aspects, including the element of warfare. A country such as Afghanistan, Pakistan, Yemen, and other countries may now dominate reports on new military technologies. On the era of Artificial Intelligence, some argue that weapons should be smarter to locate better and kill enemies while minimizing risk to civilians.

War and technological development have been linked together for centuries. For Ages, States and Military leaders have been searching for weapons systems that will minimize the risk for soldiers. Weapons systems are becoming more and more advanced, and humans are moving further away from the battlefield. Mainly due to the development of artificial intelligence, weapons systems with limited human involvement have been developed.⁴ Autonomous Weapons Systems (AWS) are emerging as key technologies of future warfare.

International Humanitarian Law categorizes the use of Autonomous Weapons to means and methods of warfare, the context of means in International Humanitarian Law is what kind of weapons used in hostilities. This term specifically refers to the physical means that belligerents use to inflict damage on their enemies during combat. As such, the term includes

³ Ida Verkleij, 2016, *Autonomous Weapons systems*, Tilburg, Tilburg University, p. 2.

⁴ Geneva Academy of International Humanitarian Law and Human Rights, 2014, *Academy Briefing No. 8: Autonomous Weapons Systems under International Law*, Geneva, Geneva Academy, p. 3.

all weapons and includes weapons systems.⁵ Different from the method of warfare, the term generally describes how weapons are utilized by parties to an armed conflict in the conduct of hostilities.⁶ Autonomous Weapons Systems, as defined, are not explicitly regulated by International Humanitarian Law (IHL) treaties. However, it is undisputed that any Autonomous Weapons Systems must be capable of being used and must be used by IHL. The responsibility for ensuring this rests, first and foremost, with each State that is evolving, deploying and using weapons.⁷ Autonomous Weapons Systems, which can select targets and delivering force without human interaction, have already been developed. However, these weapons systems are, at this moment, only used as defense systems. In the future, they might be used as combat systems.

So far, academic debate concentrates on the legal-ethical implications of AWS, but these do not capture how AWS may shape norms through defining diverging standards of appropriateness in practice. The new use of Autonomous Weapons Systems will cause difficulties in establishing the form of responsibility for the application of International Humanitarian Law when numerous individuals are complicated, and the actor is a robot. Even

⁵ International Committee of Red Cross, “*How does Law Protect in War?*”, <https://casebook.icrc.org/glossary/means-warfare> accessed on 26 February 2019 at 5:23 p.m.

⁶ Geneva Academy of International Humanitarian Law and Human Rights, “*Method of Warfare*”, <http://www.weaponslaw.org/glossary/method-of-warfare> accessed on 26 February 2019 at 6:20 p.m.

⁷ Neil Davison, 2017, “A Legal Perspective: Autonomous Weapons System under International Humanitarian Law”, *UNODA Occasional Papers* Vol.1, No.30, New York, United Nation Publisher, p. 7.

though the technology behind unmanned systems is rapidly developing, there is a slow assessment of their legal aspects.⁸

Therefore, it is important to regulate Autonomous Weapons Systems. To regulate Autonomous Weapons Systems, one of the many questions that need to be answered is if the commander can be held responsible when an Autonomous Weapons Systems commits a crime.⁹

B. Problem Formulation

Based on the research background above, the author formulates a question to be answered, namely:

How the commander can be responsible on the issue of Autonomous Weapons System under International Humanitarian Law?

C. Objective of Research

The research divided into objective and subjective, the objective of the research is to know the International Humanitarian Law and International Law perspective on Command Responsibility of Autonomous Weapons Systems whereas subjectively the research is prepared as a requirement to obtain Law Degree in Faculty of Law, Universitas Muhammadiyah Yogyakarta.

⁸ International Committee of the Red Cross, 2014, “*Autonomous Weapons Systems: Technical, Military, Legal and Humanitarian Aspects*”, Background Paper for Meeting of Experts 57. <http://www.icrc.org/.../4221-002-autonomous-weapons-systems-full-report-2.pdf> accessed on 1 February 2019 at 3:20 p.m.

⁹ Marcus Schulzke, 2017, *The Morality of Drone Warfare and the Politics of Regulation*, London, Palgrave Macmillan UK, p. 204.

D. Benefits of Research

There are some benefits of the research, namely:

1. Theoretical Aspect

The research gives benefits to know deeply understanding about the concept of Command Responsibility on Autonomous Weapons Systems under International Humanitarian Law

2. Practical Aspect

The research provides States or any individuals a better understanding to implement the concept of Command Responsibility on Autonomous Weapons System under International Humanitarian Law such as government, lecturers, students, and the party who involved.

E. Overview of the Chapter

The research consists of five chapters, namely: Chapter One Introduction, Chapter Two Literature Review, Chapter Three Research Method, Chapter Four Finding and Discussion, Chapter Five Conclusion, and Recommendation.

Chapter One: In this chapter, the author explains the general matter, such as Background, Problem Formulation, Objective of Research, Benefits of Research, and Overview of The Chapter. The background delivers the situation of weapons nowadays, while it becomes more Autonomously, regarding the issue, it should be a responsibility from the commander in the case on the use of Autonomous Weapons System. The author also addresses the research problem, which will be discussed in the next chapter.

Chapter Two: The chapter discusses related library sources and theoretical outline regarding Autonomous Weapons Systems, Command Responsibility, and International Humanitarian Law.

Chapter Three: The chapter explained the research method, which is used in the research. The discussion is started from the type of research, legal materials, method of collecting data, and method of data analysis. The type of current research is normative legal research. The research applies statute and case approaches. The data were collected from some literatures consisting of primary legal material, secondary legal material, and tertiary legal material. Furthermore, the data were taken through library research and analyzed systematically by using a qualitative and descriptive method.

Chapter Four: Finding and Analysis, the chapter elaborates the result and discusses the Command Responsibility of Autonomous Weapons Systems under International Humanitarian Law.

Chapter Five: Conclusion and Recommendation, in the chapter, the author recaps the finding and analysis and makes a conclusion on the Command Responsibility of Autonomous Weapons Systems. Recommendations are then given for the upcoming issue of Command Responsibility of Autonomous Weapons Systems under International Humanitarian Law.