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Committee: Disarmament and international security (GA1)

Issue: Working towards the banning of lethal autonomous weapons

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Position: Co-chair

PERSONAL INTRODUCTION

Dear Delegates,

My name is John Mousios and I am a high school student at the 1st High School of Thermi, Thessaloniki. I would like to welcome you all to the 1st DSTMUN and to the Disarmament and International Security Committee (GA1) in which I am honored to serve you as a Co-chair. I am really looking forward to the conference as this is my first time as a Student Officer and I am eager to meet you all and see you debate upon our agenda.

In the previous years, I have participated in three conferences with great success and I am looking forward to becoming a part of the board. The Disarmament and International Security Committee (GA1) deals with significant issues related to warfare, threats to peace, regulation of armaments and others that affect the whole world, making it one of the most important committees.

Moving on, the Study Guide will help you with your research and your better understanding of the issue. You will find definitions of key terms, events, previous attempts which aimed to solve the issue at hand and you will be able to conduct your research easier than without this study guide.

Should you have any questions during your research regarding your work or you need any other information, you can contact me freely at mousiosjohn@gmail.com. I hope you will find all this information useful, I wish good luck and I expect to see you all in the conference!

With regard,

John Mousios

TOPIC INTRODUCTION

The issue that you will be debating upon concerns the Lethal Autonomous Weapons (LAWs). LAWs are weapons of destruction that can operate on their own, spotting and eliminating any enemy activity if they are programmed to do so. Therefore, the tasked operator has some kind of control over these weapons by selecting which orders will be inserted in the robot. LAWs are used in many occasions, such as military operations, intelligence gathering by agencies, reconnaissance, in the 21st century, but their use goes back centuries; the first one is a very common one, the land-mine. Since their creation they have been updated and have become from small round objects to robots and programmed computer systems. Over the years, a huge controversy started forming around the LAWs concerning their lethality when used. Both sides presented arguments, advantages and disadvantages and each country holds a different position on the topic today. A heated debate has stirred up regarding the ethics and the legality of these weapon systems and if the human rights are being violated by their use.

#1 The MQ-1 spy plane, capable of intensifying targets.

There is proof that their lethality exceeds any known similar weapon system, since their actions cannot be fully predicted. No official actions have taken place yet to give solutions except some conversations of the United Nations, that can be found bellow, that did not yield any result. There is a lot of pressure to ban these weapons and many campaigns have taken action to enforce that request. The 'Campaign to Stop Killer Robots' with the coordination of the Human Rights Watch has had a great influence on the world leaders. However, many states criticize this ban, such as USA, South Korea, and is indicated that these states continue developing such technology.

DEFINITION OF KEY TERMS

Autonomous weapons

An autonomous weapon can be considered any weapon system that is able to act on its own, meaning, to identify and eliminate the target without any human involvement. It is usual that such weapon systems are pre-programmed before entering the battlefield in order to evaluate the threat and act accordingly.[1]

Automatic defensive systems

Automatic defensive systems are weapon systems that are programmed and responsible to prevent or defend an area or infrastructure from an attack without the need of an operator. [2]

Autonomous offensive systems

These weapon systems are capable to carry out any offensive action, including searching; identifying and can only engage the target after the authorization of a human. Each weapon system that does the above is considered an autonomous offensive system (e.g. Drones).[3]

Artificial Intelligence

Artificial Intelligence is called the intelligence that machines develop in contrast to the human or animal intelligence. Generally, the term is used when a machine copies human functions to solve a problem.[4]

BACKGROUND INFORMATION

The history of LAWs

Since their creation they have replaced military personnel, aircrafts and defensive or offensive systems. With their autonomy level varying some can be capable of eliminating targets and other capable of spotting and observing the target.

The first LAW is considered to be the land mine in the 1600s, a widely used defense weapons used until today in many battlefields. After that moment there were many attempts to create a weapon that was, in a way, autonomous. In 1914 during World War I many weapons systems were developed for that purpose. In the

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[1] *Lethal Autonomous Killer robots* www.hrw.org/topic/arms/killer-robots
[2] https://en.wikipedia.org/wiki/Automated_defense_systems
[3] *Lethal Autonomous Weapon Systems and the Future of Warfare* www.iai.it/en
[4] https://en.wikipedia.org/wiki/Artificial_Inntelligence

1970s the US started funding programs to research artificial intelligence and how it could be used. Two years later the US makes use of the first laser-guided weapons. After two decades and on board the USS Vincennes the ''Aegis'' air-defense system, faulty shoots down an Iranian commercial flight, killing all the passengers. In 1994 the MQ-1 predator drone is built, by General Atomics, in order to provide real-time surveillance. Until 2001 the MQ-1 drone would become a killer drone when hellfire missiles were added to its arsenal. However, the first unmanned robot was deployed during Iran-Iraq war in 1980.

Today, many states use such systems to protect their sovereignty. For example, in 2006 South Korea placed sentry robots to protect zones along the demilitarized borders with North Korea that can target the enemy but require human authorization. In 2012 the US Defense Department issues the directive in order to ''minimize the probability and consequences of failures in autonomous and semi-autonomous weapon systems''[5] allowing for the development of non-lethal autonomous weapons.

The first Lethal Autonomous Weapon

The first ever lethal autonomous weapon that was manufactured was the land-mine. The anti-personnel mine had was capable to trigger itself when it was stepped on. Basically, when the pressure changed in a fast pace they would explode thus eliminating the factor that altered the pressure. They were a simple but effective autonomous weapon for the 1600s and their beginning signaled the start of the autonomous weapons and systems that now exist.

Campaign to stop killer robots

The specific campaign originated in 2013 from a group of experts in Artificial Intelligence that send out a letter with the hazards of autonomous weapons and requested to ban them worldwide. This request was supported by many public figures and scientists that signed also this letter. After 5 years the campaign continues this race having found many more supporters around the globe.

Policy followed by superpowers on the topic (e.g. US, Russia, Israel)

The policy followed by the US categorizes the LAWs to autonomous and semi-autonomous, where the first is to be designed in such order to be controlled by a human and the second can identify and attack without confirmation.

Latest reports state that the Russian Federation is developing new intercontinental, nuclear-armed and nuclear powered torpedo called 'Status 6'.

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[5] *Directive 3000.09 Autonomy in weapon systems* https://www,hsdl.org/?abstract&did=726163

Along that Russia is developing a wide variety of A.I. missiles, drones, military robots and medic robots.

The Israeli minister of defense declared in 2017 that Israel is developing military robots small as flies to be able to assassinate leaders of Hamas and Hezbollah[6].

Although many campaigns start from countries that are superpowers, their governments hold different positions and continue their actions without paying attention to the requests of the international community and their people.

#2 The Phalanx CIWS

It is true that many states have programs to develop their own technology and their own autonomous weapons, one can even call it an arms race. The use of autonomous weapons by these countries is also something that is worth mentioning. Most of the operations that are carried out by the military or by the agencies indicate that drones and other weapons of the kind are used to carry out the mission.

It seems that even though a big amount of pressure is applied to the world leaders to end the use of these weapons, they favor their use in order to simplify and make the completion of the objective easier.

The Legal framework regarding Lethal Autonomous Weapons

The Certain Conventional Weapons (CCW) is an international Treaty that prohibits the use of laser weapons and has regulated the use of other harmful weapons. Many thought that this Treaty would solve the problem as many major weapons producers have agreed to preserve it. However, as Steve Goose -a UN representative- has mentioned "the CCW is failing".

Generally, the use of such weapon systems falls under the International Humanitarian Law (IHL). When a state engages in conflict it is under the obligation to respect the IHL and the five customary rules that state[7]:

1. States shall distinguish between combatants and civilians

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[6] Hamas and Hezbollah are terrorist groups of the area. Hamas has the goal to destroy Israel while Hezbollah threatens the Middle East peace.
[7] *Lethal Autonomous Weapon Systems and the Future of Warfare* www.iai.it/en

2. An attack must be proportional and all the necessary measures must be taken to avoid superfluous injury
3. To avoid unnecessary damage to the natural environment

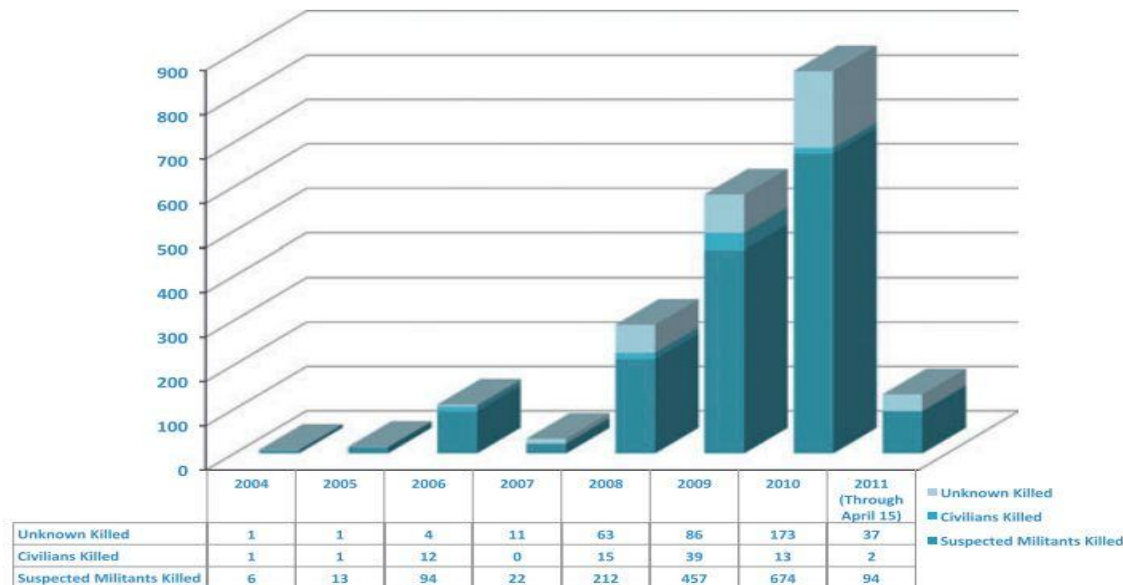**Previous attacks and events with drones by Western countries against the Middle East.**

Since 2004 Western powers use drones to attack Middle East countries like Yemen, Pakistan, Syria and Afghanistan.

In Pakistan the last 14 years, 430 drone strikes were approved by the US and other countries with almost 4,000 confirmed deaths and 20% of them being civilians.[8]

In Yemen after 16 years and 302 drone operations, 1,700 were killed amongst them 200 civilians. After the attack of the September 11, 2001 NATO started attacking Islamic fronts.[9]

Syria is a country that is least affected by drone strikes as only 8 attacks have been carried out by the US during the years 2017-2018.However, during in 2014-15 US and allies have ordered many more strikes. [10]

Afghanistan is the most affected country as in a few years over 3,900 drone strikes- have been approved against the Taliban with the casualties reaching 4,800 and 330 of them civilians.

	2004	2005	2006	2007	2008	2009	2010	2011 (Through April 15)
Unknown Killed	1	1	4	11	63	86	173	37
Civilians Killed	1	1	12	0	15	39	13	2
Suspected Militants Killed	6	13	94	22	212	457	674	94

#3 Casualties from US drone strikes

[1-] *How many civilian casualties of US drone strikes?* https://washightonspectator.org/drones-syria-obama
https://www.spokesman.com

The use of drones and other LAWs from extremist and terrorist groups

It is known that the world's superpowers have the most autonomous weapons. Over the last years this technology has become available to terrorist groups that use them either against military groups or against innocent. Biological attacks and bombings are only a few incidents that are considered possible against the aforementioned targets. In 2017, some Islamic State fighters were spotted demonstrating a small drone that carried a package underneath and after a few days they declared their possession of such drones and took credit for the death of almost 40 Iraqi soldiers.

U.S. officials state that the Islamic state drones are not as sophisticated as the ones used by Western powers but can still be harmful against crowds of civilians.

Advantages and Disadvantages

Lethal autonomous weapons have both advantages and disadvantages. Starting with the advantages that mostly benefit military operations. Firstly, LAWs offer direct actions when it concerns high value targets or leaders of terrorists groups that pose a threat. Alongside with that, drones ensure either small or big scale accurate attacks and can provide confirmation that the objective was completed. One of the most important advantages of LAWs is that after their creation the exposure of military personnel has been minimal, thus reducing the casualties of soldiers, a major issue during wars and operations. Moreover, drones and robots are capable of completing tasks that are not easily executed by a human.

On the contrary, the disadvantages are the ones that create the heated debate about the LAWs and question the ethics of their use. LAWs pose a great risk to the lives of innocent civilians as in many cases in the attempt to eliminate enemy militants, innocent civilians become victims of the attacks. Furthermore, when attacks are ordered in a region there is a mass destruction of properties and many acres of land are destroyed, thus damaging the lives of the occupants in the area. Over the past decades there have been many innocent victims, thousands of deaths and many destructions, while their use violates many human rights and international laws.

MAJOR COUNTRIES AND ORGANISATIONS INVOLVED

There is a list of countries that are using LAWs, that are against LAWs and that have banned them. Generally, we will focus on the countries that are highly affected by the issue which are: Cuba, Brazil, Chile, Colombia, Pakistan, Egypt, Ecuador, the Vatican, US, France, United Kingdom, Russian Federation, China, Israel.

Be reminded that many Middle East countries are against LAWs due to countless attacks and in the opposite side there are the Western countries.

USA

From the beginning of the LAWs, the United States of America had the leadership in the research and production up until other states started their own development of such weapons. The US has submitted two working papers regarding "Autonomy in weapon systems'' and "Characteristics of Lethal Autonomous Weapons"[11] and a third working paper "Humanitarian benefits of emerging technologies in the area of lethal autonomous weapon system". Generally, the US in these working papers declares that there might be humanitarian and military benefits behind the technology of LAWs and that it is considered premature to ban them.

China

China announced to the Group of Governmental Experts (GGE) on the topic of lethal autonomous weapons systems its desire to negotiate a new protocol for the Convention on Certain Conventional Weapons and to ban the use of autonomous LAWs. However, China released an artificial intelligence development plan in 2017 and China's recent aggressive advancements of "cyber sovereignty" and the development of Artificial Intelligence poses questions. In 2018 China has called all nations to negotiate and conclude a protocol to ban the fully autonomous weapon systems as a permanent member of the Security Council.

Israel

Israel is one of the countries that has already an arsenal of autonomous weapon systems and has already deployed self-driving military vehicles on the border with the Gaza Strip. Israel holds a position in favor of the autonomous weapons and cutting edge technology combined with advanced artificial intelligence.

Russian Federation

Last year, Russian diplomats declared that in case of a ban Russia will not stop developing technology concerning lethal autonomous weapons. The Russian delegation also stated that there are not many examples or precedents in order to ban them. Moreover, Russia stated that a ban on LAWs would limit the benefits of autonomous robots on the society.

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[11] https://www.lawfareblog.com/too-early-ban-us-and-uk-position -lethal-autonomous-weapons-systems

#4 World Map showing the states involved

Human Rights Watch

There are also many organizations involved with the lethal autonomous weapons that try to ban them like the Human Rights Watch. The HRW has called for a ban on all actions concerning the LAWs, development production and use. Moreover, the HRW is a founding member of the "Campaign to stop killer robots".

BLOCS EXPECTED

Concerning the issue at hand, there can be two sides when it comes to blocs. There are the countries that support the ban of lethal autonomous weapons and their complete destruction and there is opposing bloc which is against the ban and supports that the usage of such technology would profit the human community. Therefore, you can notice that your country will either support the one or the other side, the one that goes better with your current policy.

The one side that supports the ban of such weapons includes countries mostly from the Middle East, Africa, Latin America and some European countries that are against. On the other hand, the countries that are against the ban would mostly be the superpowers and their allies like USA, China, the Russian Federation etc..

TIMELINE OF EVENTS

Date	Description of event
World War II	First military robots
1953	The use of the first computer guided missile
18 June 2004	First ever drone attack
2013	Campaign to stop killer robots
2014	The first informal Meeting of Experts of the Certain Conventional Weapons (CCW) on LAWs
2017	Group of Governmental Experts meeting on LAWs on the use of Certain Conventional Weapons (CCW)
2018	Meeting in Geneva to tackle the issue, without reaching to an agreement

RELEVANT RESOLUTIONS, TREATIES AND EVENTS

Since the beginning of the development of LAWs no resolution was ever signed by the UN to limit their use or advice on their use. Only a treaty was introduced the protocol of Certain Conventional Weapons (CCW) which in a way limits the use of such weapons. The use of lethal autonomous weapons falls into international law and each country is responsible to respect it. Since 2013 and the beginning of the "Campaign to stop killer robots" many states and organizations alongside with supporters from the scientific community stated that were ready to discuss and find a way to ban LAWs worldwide. As mentioned above, in 2014 the Experts of the Certain Conventional Weapons met for the first time and three years after a similar meeting was held between Governmental experts and the Experts of the CCW committee. Last April, the United Nations met in Geneva to address the issue without reaching an agreement but the talks will continue.

POSSIBLE SOLUTIONS

When discussing your resolution you could elaborate more on the following points:

The CCW committee should assist to regulate laws regarding the use of LAWs. It seems like the already existing legal framework and the absence of resolutions is indirectly allowing countries and terrorist groups to make use of such weapons. Moreover, every member state should ensure that such technology will not be acquired by terrorist groups and non state- actors in general, which means

that the security measures of facilities where countries keep the construction-material of such weapons should be strengthened.

As mentioned before, laws should be in place in order to stop the manufacturing of such weapons and every member state should accept verification checks by UN experts. For instance, a protocol should be implemented in case of any attack, in order to make sure no innocent civilians are at risk, together with the help of experts who will be assigned to monitor any LAW activity in order ensure that all safe protocols are being followed. Last but definitely not least, the governments may alter their policy regarding the authorization of attacks or use of such weapons to be taken only by high-level clearance personnel. It is an undeniable fact the stricter regulations are needed in order to resolve this matter.

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