

# Legal Uncertainty Around the use of Lethal Autonomous Weapons Systems in International Armed Conflicts

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*By Briauc Perrin*

## Introduction

Governments around the world are steadily developing new lethal autonomous weapons systems (LAWS), especially since the outbreak of the Nagorno-Karabakh conflict, which marked the massive use of the Israeli switchblade drones (a.k.a. kamikaze drones), as stated by Azerbaijani authorities (the video is available on youtube, named: "Atəş" klipi (clip). İfa edirlər: Nur qrupu, Nərimin Kərimbəyova, Ceyhun Zeynalov (Cin)).

Kamikaze drones, Israeli switchblade loitering munition (AeroVironment, Inc) and the Russian Lancet-3 drones (Parth Satam), are being used in the Russia-Ukraine War, showing the high level of effectiveness in combating military vehicles.

An increase in use of LAWS remains highly debatable rising many legal and ethical questions. The debate principally revolves around the human control over the machine. Given the history lessons, the human factor can become the source of making mistakes in a process of achieving the specific goals. Nonetheless, it is also considered as the last safeguard, as in a case of Russian officer Vassili Aleksandrovitch Arkhipov, who during the Cold War ran contrary to superior orders. He believed that World War III had begun and refused to launch nuclear missiles (LaVigne Olga).

We could say that the Russian officer's story does not relate to autonomous systems. However, a recent historical event in civil aviation has proven that a hastily designed autonomous system can lead to serious consequences. Human control can be the last line of defence against the critical failure of an autonomous system. This was the lesson Boeing had to learn when they developed an autonomous system to overcome a flight problem on the 737 MAX. The above system depended on a single input system that transmitted the nose angle to the flight system to allow the aft flaps to prevent any stall (Jean-Philippe Louis). The design of the system relied on a single source of information located on the outside of the aircraft and led to the crash of multiple 737 MAX (Olivier Gosset). The pilots had only limited control over the autonomous system, the design of the system leaving them only a 10-second lapse of time in case of malfunction to deactivate the system and prevent the crash of the aircraft.

Returning to LAWS, they remain artificial systems subject to software or hardware errors and are operating in hostile conditions, thus multiplying the risks of system failure or loss of control. It is therefore necessary to analyse the freedom of action that should be granted to LAWS to guarantee their legal use.

## Lethal autonomous weapons systems' functioning and human control

For better comprehension, we should address the way LAWS are used.

LAWS are mainly automated systems integrated in military tracked, legged, or flying vehicles and are responsible for all the systems of the device. They rely on a structure of hardwares and are equipped with lethal capacities (weapons or payload) The real issue revolves around the Software, designed by programmers and engineers, it will bear most of the needed characteristics to ensure its effectiveness (Tayfun Ozberk).

While using, a person activates the weapon system, entering data of a located target, vehicles, buildings and/or combatants (International Panel on the Regulation of Autonomous Weapons (iPRAW)).

The operator then enters a specific time window and determines the location of the intended target. This data input determines the mission parameters. The device will then conduct searches, circling or hovering for a period of time until the target is found through the use of different sensors constantly trying to match a "target profile" (international committee of the red cross (ICRC)).

Here we stumble upon the first problem, what is a target profile. It can be quite easy to define a military vehicle as the target, the unique aspect of such a military asset. Hence the use of LAWS in a purely international symmetrical conflict as defined by the confrontation between two "Westphalian powers" assuming the existence of national states with a monopoly on legitimate violence (German Institute of International and Security Affairs).

The real problem, as always, falls on the case of asymmetric warfare, especially during non-international armed conflict (NIAC) (ICRC, Peter Maurer).

Article 57(2)(a) of the 1977 Additional Protocol I states that, in any attacks process :

*"Those who plan or decide upon an attack shall:*

*i) do everything feasible to verify that the objectives to be attacked are neither civilians nor civilian objects and are not subject to special protection but are military objectives within the meaning of paragraph 2 of Article 52 and that it is not prohibited by the provisions of this Protocol to attack them"*

The problem can be easily explained with the article as the definition given to target within a NIAC scenario. Is a pick a military target as it is often used as a platform for AA guns or heavy weapons (Mat Hardy), but this is a consequence of the widespread use of similar vehicles within the civilian population. Hence, it would be difficult for a trained operator to determine the qualification of the vehicle as a military target, software-based sensors will hardly do better.

A second concern arises from the same article, as normally the final decision to “open fire” is made by the soldier (David Cumin), here it isn’t even the drone who will trigger the strike. It will be triggered by the target movement, or behavior (ICRC). But the process of targeting is not made by a human anymore with the LAWS, it is now the target who triggers the use of the weapon.

It is possible to find an old weapon that shares many characteristics with LAWS. Looking at the question of legality around the use of mines. They may be simple systems triggered by the target and have caused many casualties within the civilian population. This indiscriminate targeting will lead to its prohibition by the international community with the 1997 Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction is the international agreement that bans antipersonnel landmines.

## **LAWS or Human decision, a question of responsibility**

Another issue revolves around the fundamental rule of responsibility of military personnel when they are involved in a conflict. In the international law of armed conflict, imposing accountability on participants is fundamental to ensuring compliance, and will allow for the prosecution of perpetrators and justice for victims.

Perpetrators are the focus of any investigation, and their accountability, most often centred around criminal responsibility, it will be analysed under the prism of Article 25 of the ICC Statute, which reads as follows:

*"1. The Court shall have jurisdiction over natural persons pursuant to this Statute.*

*2. A person who commits a crime within the jurisdiction of the Court shall be individually responsible and liable for punishment in accordance with this Statute.*

*3. In accordance with this Statute, a person shall be criminally responsible and liable for punishment for a crime within the jurisdiction of the Court if that person:*

*(a) Commits such a crime, whether as an individual, jointly with another or through another person, regardless of whether that other person is criminally responsible;*

*(b) Orders, solicits or induces the commission of such a crime which in fact occurs or is attempted;*

*(c) For the purpose of facilitating the commission of such a crime, aids, abets or otherwise assists in its commission or its attempted commission, including providing the means for its commission;*

*(d) In any other way contributes to the commission or attempted commission of such a crime by a group of persons acting with a common purpose. Such contribution shall be intentional and shall either:*

*(i) Be made with the aim of furthering the criminal activity or criminal purpose of the group, where such activity or purpose involves the commission of a crime within the jurisdiction of the Court; or*

*(ii) Be made in the knowledge of the intention of the group to commit the crime;*

*(e) In respect of the crime of genocide, directly and publicly incites others to commit genocide;*

*(f) Attempts to commit such a crime by taking action that commences its execution by means of a substantial step, but the crime does not occur because of circumstances independent of the person's intentions. However, a person who abandons the effort to commit the crime or otherwise prevents the completion of the crime shall not be liable for punishment under this Statute for the attempt to commit that crime if that person completely and voluntarily gave up the criminal purpose."*

As it is easy to read under Article 25(3), any person is criminally responsible for violations of international humanitarian law if he commits such acts directly (Article 25(3)(a)) or on behalf of another person, whether responsible or not.

Article 25(3)(b) refers to the responsibility of the person who orders, solicits, or induces a violation. In both paragraphs it is easy to link the liability of the agent who would authorise a LAWS strike.

However, if the human agent is removed from the equation, then criminal responsibility is detached from direct participation, which can easily lead to blurred accountability and therefore subject to international law jurisprudence.

In the context of legal uncertainty, the builder, the developer, the officer entering mission data, or the commander of the LAWS attack could all be liable for any breach of the ICL (Sarker, Sudip & Llm, Msc).

## **Conclusion**

Finally, international law remains relatively unclear about the relationship between international law and lethal automated weapon systems, both in terms of the proportionality of their use and in terms of liability in such cases.

This logically leads international humanitarian law bodies to advocate the introduction of limits on the types of targets that LAWS can attack, for example limiting the targets to "pure" military objects that cannot be mistaken for civilian vehicles. It would also be possible to limit the use of these systems to conflicts where the forces involved are clearly identifiable and distinct from any divisive movable or immovable property.

Under the principles of proportionality of attack and automatic escalation of firepower that is an inherent component of the LAWS programme. Thus, it would be possible to limit the scale of use of such systems in cases where human control is the basis for initiating or terminating the attack to ensure limited criminal liability of the attackers.

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