



Convention on Certain Conventional Weapons (CCW)
Meeting of experts on Lethal Autonomous Weapons Systems (LAWS)
Geneva, 11-15 April 2016

NON PAPER
CHARACTERIZATION OF A LAWS

At the 2013 meeting of States Parties, a mandate regarding emerging technologies in the area of lethal autonomous weapons systems was agreed on by the CCW High Contracting Parties. The mandate encouraged States Parties to “discuss questions related to emerging technologies in the area of lethal autonomous weapons systems”. Its adoption underlined the need to assess the impact of the development of fully autonomous lethal weapons systems (LAWS), which would totally exclude humans from the decision making process (“human out of the loop”).

Since then, two meetings of experts on LAWS were held in the framework of the CCW, during which many delegations showed interests in the topic, and in-depth debates took place. Discussions will continue at the 2016 meeting of experts on various topics, among which the issue of characterization of a potential LAWS, which remains quite challenging as we are discussing emerging technologies.

France would like to offer the following remarks for consideration by delegations:

It is necessary for States parties to the CCW to work towards a common characterization of a LAWS, so that our discussions and work can move forward with the assurance that all stakeholders are discussing the same type of systems. The definition of autonomy is instrumental to reach a common characterization of LAWS. This does not preclude the usefulness and legitimacy of discussions on topics such as ethical issues and the relevant legal framework applicable to LAWS.

France considers that LAWS share the following characteristics:

- Lethal autonomous weapons systems are **fully autonomous systems**. LAWS are future systems: they do not currently exist.
- **Remotely operated weapons systems and supervised weapons systems should not be regarded as LAWS** since a human operator remains involved, in particular during the targeting and firing phases. **Existing automatic systems are not LAWS either**
- **LAWS should be understood as implying a total absence of human supervision**, meaning there is absolutely no link (communication or control) with the military chain of command.

- **The delivery platform of a LAWS would be capable of moving, adapting to its land, marine or aerial environments and targeting and firing a lethal effector (bullet, missile, bomb, etc.) without any kind of human intervention or validation.**

Given the complexity and diversity of environments (particularly in urban areas) and the difficulty of building value-laden algorithms capable of complying with the principles of international humanitarian law (IHL), a LAWS would most likely possess self-learning capabilities, since it seems unrealistic to pre-program all the scenarios of a military operation. This means, for instance, that the delivery system would be capable of selecting a target independently from the criteria that have been predefined during the programming phase, in full compliance with IHL requirements. With our current understanding of future technological capacities, a LAWS would therefore be unpredictable.

In the past two years, some voices have advocated a shift from the concept of autonomy – and the prospective issue of the absence of human intervention in lethal weapons systems –, towards a rather vague concept of "meaningful" presence of human operators in the decision-making process of lethal weapons systems. **This new concept contradicts the very notion of full autonomy and lacks the precision and technical accuracy needed to discuss complex prospective systems. The concept of “meaningful” control, which definition can be challenged, would not grant a solid legal basis either.**

Finally, from a military perspective, **full autonomy** – and the absence of liaison with the weapons system – contradicts the need for permanent and accurate situation awareness and the operational control by the commander.

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LAWS do not exist to date. Before they could (possibly) be developed, States would have to ensure that such systems are capable of complying with international humanitarian law, particularly during complex and challenging operational situations. For a country respecting IHL, LAWS will require a level of technology hard to imagine in a foreseeable future, unless a technological breakthrough occurs. CCW States Parties will therefore have to remain vigilant about such technological turning points, and might consider a periodical review based on emerging technologies in the area of lethal autonomous weapons systems.