

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

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**Group of Governmental Experts on Emerging Technologies
in the Area of Lethal Autonomous Weapons System
Geneva, 7-11 March, and 25-29 July 2022**

Item 5 of the agenda

Consideration of proposals and elaboration, by consensus, of possible measures, including taking into account the example of existing protocols within the Convention, and other options related to the normative and operational framework on emerging technologies in the area of lethal autonomous weapon systems, building upon the recommendations and conclusions of the Group of Governmental Experts related to emerging technologies in the area of lethal autonomous weapon systems, and bringing in expertise on legal, military, and technological aspects

Working paper

Submitted by Finland, France, Germany, the Netherlands, Norway, Spain and Sweden

1. This working paper is aimed at contributing to the 2022 report of the GGE on LAWS, including with a view to possible consensus recommendations on measures related to the normative and operational framework on emerging technologies in the area of lethal autonomous weapon systems. Its focus is on presenting a possible structure for these recommendations and not to present an already complete package.

2. Over the course of the past months, a number of very substantial proposals have been put forward by the members of the GGE. A common feature of the 11 guiding principles, of the “Final Declaration” adopted by the Sixth Review Conference in 2021 and of these recent proposals is the acknowledgment that International Humanitarian Law (IHL) continues to apply fully to all weapons systems, including the potential development and use of lethal autonomous weapons systems, and that lethal autonomous weapons systems incapable of being used in accordance with international law, including International Humanitarian Law (IHL) should not be developed and used. This is at the core of the debate on lethal autonomous weapons systems and should continue to guide the work of the GGE on LAWS.

3. Thus, the States submitting the present working paper are of the view that the GGE should seek consensus on a two-tier approach, based on the recognition that lethal autonomous weapons systems that cannot comply with IHL are de facto prohibited and should not be developed or used, and that further work is needed to operationalize this commitment at national level.

4. On the basis of this approach, the following proposals are submitted for the consideration of the GGE with regard to a possible normative and operational framework on emerging technologies in the area of lethal autonomous weapons systems. In the framework of the GGE, States should commit to:

- outlaw fully autonomous lethal weapons systems operating completely outside human control and a responsible chain of command, as well as;
- regulate other lethal weapons systems featuring autonomy in order to ensure compliance with the rules and principles of international humanitarian law, by



preserving human responsibility and accountability, ensuring appropriate human control and implementing risk mitigation measures.

5. The following structure and content could form a useful basis for the elaboration of a possible normative and operational framework on emerging technologies in the area of lethal autonomous weapons systems:

A. Within the Preambular part, the High Contracting Parties (HCP) to the CCW should:

(a) Reaffirm the role and objectives of the CCW which remains the appropriate forum, notably because of its object and purpose as well as its multilateral nature, to address the issue of LAWS (as affirmed in guiding principle k), under which a normative and operational framework must be adopted;

(b) Reaffirm also international law (in particular the United Nations Charter and International Humanitarian Law) as well as relevant ethical perspectives which guide the work of the HCP;

(c) Recognise that an appropriate balance should be struck between the necessity to allow progress in or access to dual-use emerging technologies (as recalled by guiding principle j), and the importance of taking into account humanitarian considerations and challenges with regard to IHL in the development and use of such technologies (c.f. guiding principle k);

(d) Recognise that lethal autonomous weapon systems that cannot be used in accordance with international law, including international humanitarian law, are de facto prohibited;

(e) Recognise therefore that lethal autonomous weapons systems operating completely outside human control and a responsible chain of command are unlawful.

B. In order to operationalize the two-tier approach, the HCP should:

(a) Commit not to develop, produce, acquire, deploy or use fully autonomous lethal weapons systems operating completely outside human control and a responsible chain of command (see guiding principles b, c, and d);

(b) Commit to only develop, produce, acquire, modify, deploy or use lethal weapons systems featuring autonomy when the following provisions are fulfilled:

- i. compliance with international law is ensured when studying, acquiring, adopting or modifying (legal review – see guiding principle e) and using lethal weapons systems featuring autonomy;
- ii. appropriate human control is retained during the whole life-cycle of the system considered (see guiding principle c) by ensuring that humans will be in a position to, inter alia:
 - at all times have sufficient assurance that weapons systems, once activated, act in a foreseeable manner in order to determine that their actions are entirely in conformity with applicable national and international law, rules of engagement, and the intentions of its commanders and operators. For this purpose, developers, commanders and operators - depending on their role and level of responsibilities - must have a sufficient understanding of the weapons systems' way of operating, effect and likely interaction with its environment. This would enable the commanders and operators to predict (prospective focus) and explain (retrospective) the behavior of the weapons systems;
 - during the development phase: evaluate the reliability and predictability of the system, by applying appropriate testing and certification procedures, and assess compliance with IHL through legal reviews;
 - during the deployment: define and validate rules of use and rules of engagement as well as a precise framework for the mission assigned to the system (objective,

- type of targets etc.), in particular by setting spatial and temporal limits that may vary according to the situation and context, and monitor the reliability and usability of the system;
- when using: humans should also exercise their judgement with regard to compliance with rules and principles of IHL, in particular distinction, proportionality and precautions in attack, and thus take critical decisions over the use of force. This includes human approval for any substantial modification of the mission's parameters; communication links; ability to de-activate the system if and when necessary, unless technically not feasible.
 - human responsibility and accountability is preserved (see guiding principles b and
- iii. at all times, in all circumstances and across the entire life cycle as basis for State and individual responsibility and can never be transferred to machines. To that end, the following measures and policies should be implemented:
- on responsibility:
 - doctrines and procedures for the use of lethal weapons systems featuring autonomy;
 - adequate training for human decision makers and operators to understand the system's effect and its likely interaction with its environment;
 - operation of the system within a responsible chain of human command, including human responsibility for decisions to deploy and for the definition and validation of the rules of operation, use and engagement;
 - on accountability:
 - measures enabling an after action review of the system to assess compliance with IHL of a system, unless technically or operationally not feasible;
 - mechanisms to report violations, investigation by States of credible allegations of IHL violations by their armed forces, their nationals or on their territory;
 - disciplinary procedures and prosecution of suspected perpetrators of grave breaches of IHL as appropriate.
- iv. tailored risk mitigation measures and appropriate safeguards regarding safety and security (see guiding principles f and g) are adopted and implemented.
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