

Group of Governmental Experts on Lethal Autonomous Weapons Systems (GGE LAWS)

Canadian response to the Chair's request for input on potential consensus recommendations

The Chair of the GGE LAWS has recently asked High Contracting Parties to submit written contributions on possible consensus recommendations in relation to the clarification, consideration and development of aspects of the normative and operational framework on emerging technologies in the area of LAWS.

This response provides Canada's views, and builds on much appreciated work submitted by other High Contracting Parties in the spirit of collaboration and in moving the international discussion on this topic forward. In particular, Canada acknowledges and thanks High Contracting Parties who have submitted their commentaries on the operationalization of the Guiding Principles; Canada is pleased to submit its own such commentary on the Guiding Principles in time for the next session of the GGE.

Canada is supportive of the entire breadth and scope of discussion within the GGE, and is eager to further explore items (a) and (c) in the letter from the Chair of the GGE, which are:

- "An exploration of the potential challenges posed by emerging technologies in the area of Lethal Autonomous Weapons Systems to International Humanitarian Law"; and
- "Further consideration of the human element in the use of lethal force; aspects of human-machine interaction in the development, deployment and use of emerging technologies in the area of LAWS".

As a first step, the GGE could further explore whether consensus can be reached on the absolute minimum requirement for "human involvement" for a given weapon to be compliant with IHL. Through further discussion and refinement of the interpretation of this concept, High Contracting Parties to the GGE could agree on where the line should be drawn between "fully autonomous weapons systems," where no minimum human element is present and which are therefore by definition non-compliant with IHL and, conversely, weapon systems where autonomy is accompanied by appropriate human involvement, and are therefore able to maintain compliance with IHL.

From Canada's perspective, we see this concept as being closely related to Guiding Principle C of the 11 Guiding Principles developed by the GGE. Appropriate human involvement must be maintained in the use of force. Canada ensures this necessary element first through its national legal reviews of all weapons systems, which ensure that weapons systems meet Canada's international legal obligations. We also ensure strict adherence to IHL throughout the lifecycle of the weapon. In accordance with Article 36 of Additional Protocol I, Canada conducts national legal reviews of new weapons, means or methods of warfare, to ensure IHL compliance. Canada also strictly adheres to IHL in the deployment and use of its weapon systems. Perhaps another area the GGE could explore is how compliance with IHL is linked to 'appropriate human involvement' in the area of autonomous weapons systems. Or, how the conduct of article 36 reviews is linked to ensuring that appropriate human involvement is maintained in the use of force. For Canada, humans, not machines, are responsible for the use of force. By removing human involvement from part of their life cycle, fully autonomous weapons systems would render responsibility for decision-making difficult to trace, which is one reason why Canada is opposed to such systems. Military commanders are accountable for all uses of force that occur under their command - whether it be by a human subordinate or a machine. We see the term "involvement" as encompassing

both human judgment and human control; it is our view that armed conflict should remain fundamentally a human enterprise.

Canada believes that further consensus in this area should be sought through the work of the GGE. For instance, as already suggested, Canada would support the on-going sharing of good practices in the area of weapons reviews and human involvement as well as the sharing of case studies for existing weapons which further help our collective thinking around these issues.

The concepts of predictability and reliability of LAWS should also be further examined by High Contracting Parties. Different High Contracting Parties appear to have different interpretations of how measures of predictability should be applied to LAWS. With the use of current conventional weapons, militaries are not always able to predict exactly what will happen upon weapons release. That said, responsible militaries adopt a range of methods to enhance predictability and reduce collateral harm to ensure that weapons systems are only used in accordance with international law. Canada is of the view that weapon systems with extremely low levels of predictability (such as systems that can modify their operating parameters or objectives) should be unacceptable; however, some level of unpredictability could be acceptable if mitigated by appropriate measures, in a manner similar to how these risks are managed for current conventional weapons.

Canada would support broad ranging consensus recommendations and in particular supports the following (non-exhaustive) list:

- that it is inherently unlawful to use weapon systems that cannot, to a sufficiently high degree of reliability or predictability, perform their functions in accordance with the intention of a human operator and commander to comply with IHL requirements and principles;
- weapon systems based on emerging technologies in the area of LAWS that cannot be used in compliance with IHL should be specifically prohibited;
- to be compliant with IHL, emerging technologies in the areas of LAWS must maintain an appropriate level of human involvement;
- ensuring responsibility for the employment of weapons systems based on emerging technologies in the area of LAWS;
- ensuring that a human operator or commander exercises judgement over attacks, by mandating operational constraints on weapon characteristics and environment of use, and requirements for human-machine interaction;
- ensuring that national policies, doctrines, directives, and processes are updated to ensure new technologies are used in compliance with applicable international law;
- engaging in the voluntary exchange of information on legal reviews of new weapons;
- considering certain characteristics of LAWS in national and military policies and procedures throughout the weapon lifecycle;
- ensuring human responsibility for the use of weapon systems through various means across the life-cycle of weapon systems, including through human-machine interaction;

Finally, Canada wishes to express the importance of advancing international efforts in this regard, to our commitment to a feminist approach to foreign policy. There is a growing perspective that fully autonomous weapons systems would not be consistent with a feminist foreign policy nor with the Women, Peace and Security agenda. During a recent dialogue that Canada held with Indigenous and civil society partners on its Feminist Foreign Policy, participants raised a number of concerns related to

autonomous weapons systems, including the issue of collateral damage affecting primarily women and children in conflict zones, and the risk that autonomous systems could exacerbate existing power imbalances and biases. Canada is committed to advancing international discussions on autonomous weapons systems that take into account these concerns.

In closing, Canada thanks the Chair for their efforts to produce a comprehensive report and consensus recommendations, and reiterates its full support to the Chair during the upcoming session of the GGE.