

Let me begin by thanking the Chair for organizing this panel and the States parties to the CCW for their growing interest on weapons legal reviews. The interest in this area by a number of actors goes beyond the development of AWS. There is growing interest regarding other type of means of warfare such as cyber capabilities

The ICRC has consistently promoted over the years the importance of conducting legal reviews of new weapons. There is no dispute that any new technology must be used in accordance with IHL. The law clearly anticipated advances in weapons' technology and the development of new means and methods of waging war.

As a preliminary remark, it is important to situate weapons review in the "life cycle" of the weapon. It intervenes generally only to the first stage 1) the development of the weapon system, including its programming, as well as its acquisition. Other stages are equally important to ensure that the weapons are used in compliance with IHL:

- 2) the deployment and use of the weapon system, including the decision by the commander or operator to use or activate the weapon system within the targeting process; and
- 3) the operation of the weapon system during which it selects and attacks targets.

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1. Why conducting legal reviews are important?
2. What is the scope of the review and how should it be done?
3. What are the specific challenges posed by autonomous weapon systems?

1. Why conducting legal reviews are important?

3 reasons

- 1) Most of the States represented in this room are party to the API. This means that they are legally required to comply with the requirements of article 36 to that Protocol.

Important to recall that it is in each State's interest to assess the legality of weapons, regardless of whether it is party to Additional Protocol I.

→ Non-parties: (Article 3 Hague Convention IV 1907 that states are responsible for all acts of the armed forces; CA1).

Further efforts are needed to implement this obligation by states as there are 15 to 20 States who are known to have a formal review process mechanism. A reason for poor implementation → A number of states seems to assume that

when they acquire weapon they can either rely on the manufacturers or on reviews conducted by other States. However,

Obligations under international law differ between States and even when they are subject to the same obligations, there are often difference in interpretation and implementation.

2) makes good policy sense:

- ensures that the State's armed forces is capable of respecting its international legal obligations in armed conflict; and this can be especially important in light of rapid development of new weapons technologies
- develop expertise in law and weapons.

3) confidence-building (preamble of the CCW) and transparency

Different views have been expressed on the adequacy of this mechanism for ensuring IHL compliance of autonomous weapon systems, especially given the apparent low level of implementation among States, and the possibility of inconsistent outcomes of national legal reviews.

One can say that this is not different from other rules or field of international law, the challenges remains national implementation. This is why I believe States gather regularly in multilateral forum like this one to precisely share their views and practice on how they interpret and implement their international obligations. It is indeed an **opportunity** for States to share their experiences on legal reviews in order to create confidence that some the questions and challenges of autonomy in weapons systems are also dealt with at the domestic level.

In addition, I believe that the question is not so much whether national legal reviews are sufficient or not to deal with LAWS. The need to conduct legal reviews procedures is a legal obligation and remains a critical means for States to ensure respect for IHL. It is about exploring the legality with CARE. But of course legal reviews do not provide all the answers and efforts to strengthen national review procedures should be seen as complementary and mutually reinforcing of multilateral discussions on AWS.

On the question **transparency**, some take the view that to date there is a deficit. It is true that there is little published information available about States' weapon procurement and review processes for a number of reasons: commercial, military and national security concerns since such reviews essentially deal with classified material relating to the performance and use of weapons. However, the ICRC encourages States to share information, to the extent possible, on their legal reviews mechanisms, i.e. on their procedure to review new weapons.

- A) Disclosing the process can be seen as a way to show state commitment to legal compliance and set the example of what responsible militaries do.

- B) This could foster the development of common standards or best practices for weapons review. The ICRC stands ready to assist States in this endeavor.

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The ICRC submits that there is a certain requirement - under Article 84 API - for States to share their review procedures → shall communicate to one another laws and regulation which they may adopt to ensure the application API. → to build confidence that new weapons comply with IHL.

2. What is the scope of the review and how should it be done?

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The ICRC has published in 2006 "Guide to the Legal Review of New Weapons, Means and Methods of Warfare" based on limited existing practice of States at the time with the aim of supporting States seeking to establish or improve their review procedures and mechanisms. This Guide highlights both the issues of substance and those of procedure to be considered in establishing a legal review mechanism. However, Article 36 does not prescribe a method or format for weapons reviews.

The primary consideration in a weapons review is whether or not the weapon is lawful in some or all circumstances based on the intended and expected circumstances of use and its effects.

The weapon must comply with the existing rules of IHL. The existing law that determines the acceptability of new technology.

- Specific rules of international law prohibiting or restricting the use of specific weapons (e.g. BW, CW, landmines, cluster munitions)
- General rules of IHL applicable to the use of weapons,
 - Whether the weapon is of a nature to cause superfluous injury or unnecessary suffering;
 - Whether the weapon is likely to have indiscriminate effect;
 - Whether the weapon is expected to cause widespread, long-term and severe damage to the natural environment
 - Whether the weapon is likely to be affected by future developments in the law.
 - Restrictions based on the principles of humanity and the dictates of public conscience

[Question: MHC as a legal criterion that determines the acceptability of a weapon system?]

→ **New weapons, Means and method of warfare** include weapons in the broader sense and ways in which weapons are used.

Ex. Defensive or offensive device with the capability to kill, injure, disable people and/or destroy or damage property. Ranging from rifles, platforms, sighting equipment, laser designators, target acquisition equipment, data links and software used for processing target data all require legal review. It would also include new military doctrine that applies to weapons

➤ **"new" weapons in the technical sense:**

- Weapons acquired or developed for the first time;
- Modified weapons (when modified in a way that alter its function, ~~→ a change in the system use or capability~~. If any change affects the performance of a weapons, or a platform, then legal scrutiny is needed;
- Novel uses of existing capabilities or equipment may also require legal review;
- New international obligations affecting existing weapons;

[Question: AWS: Self-learning autonomous weapon systems that updated their functioning would be problematic from a legal review perspective because the weapon would change its characteristics over time, effectively requiring a continued legal review.]

Concerning the functional aspects of the review mechanisms, the ICRC Guide provides a number of elements on how, for instance, should the mechanism be established? Or what should be the structure and composition of the mechanism, etc.?

- Formal standing mechanism or procedures (ready to carry out reviews)
- Mandatory legal reviews (takes place in a systematic way)
- Begin at earliest possible stage of the procurement process (study, development, acquisition, adoption)
- Apply a multidisciplinary approach (Multidisciplinary expertise is important to understanding the how the weapon functions, its capabilities, and its limitations, more generally to understand the technology. For some States it remains a challenge to get the right expertise, financial resources).

3. What are the specific challenges posed by autonomous weapon systems?

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Taking human beings out of the critical function to select and attack targets may raises important issues. How "targeting rules" (e.g. principle of distinction, the rules of proportionality and precautions in attack) are considered in reviewing weapons. If the weapon takes on the targeting functions, the legal review would demand a very high level of confidence that the weapon is capable of carrying out those functions in compliance with IHL.

The legal review procedure would face practical challenges to assess whether an autonomous weapon system will perform as anticipated in the intended or expected circumstances of use. The rules CoH requires a number of complex assessments in relation to attacks:

- Can the system assess expected collateral damage? *possible for computer to evaluate v. is to for civilian/civilian objects*
- Can the system assess anticipated military advantage?
- Can the system determine whether expected collateral damage is excessive in relation to that anticipated military advantage? *- weapon's system
- blast effect
- likelihood of civilian presence*
- Can the system distinguish active combatants from those hors de combat?
- Can it distinguish combatants from peaceful civilians?
- Can it function in a way that respects the obligation to cancel or suspend an attack?

Proportionality assessment are inherently qualitative assessments in which human reasoning will be needed. Offensive versus defensive systems

→ Offensive AWS that go out and choose their own targets: the operators does not know the specific targets, only the general class of targets over a specified area in space and time.

On the basis of currently available technology, it is questionable whether the weapons system would pass the review test:

PREDICTABILITY: Predicting the outcome may become increasingly difficult.

Contextual The characteristics and the operational parameters of the weapon can influence compliance with IHL by the military employing those weapons.

→ HOW THE WEAPON IS THEN DEPLOYED/ACTIVATED in the battlefield. *human-mach interact*

- The **task** the weapon system carries out;
- The **type of target** the weapon system attacks;
- The **environment** in which the weapon system operates;
- The **movement** of weapon system in space;
- The **time-frame** of operation of the weapon system

→ The circumstances in which they could lawfully be used are very limited (in simple, relatively predictable and constrained environments rather than complex, unpredictable environments)

A challenge for reviewing the legality of AWS is the absence of standard methods and protocols for testing and evaluation to assess the performance of weapons systems, and the possible risks associated with their use.

ICRC Questionnaire: gathering information relating to state practice relating to the legal review of new weapons. Sample questions we hope to see addressed in the course of our discussions

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- Do you have specific policy/guideline regarding autonomous weapon systems?
- How are 'targeting rules' (e.g. distinction, the rules of proportionality and precautions in attack) considered in reviewing the weapons? Please explain
- Does the reviewing authority attach conditions/restrictions on a new weapon (e.g. rules of engagement, standard operating procedures, or instructions)? If not, how is this dealt with?
- Where weapons are procured from private manufacturers, police, or foreign suppliers, do you rely on their technical specifications and description of the weapon's performance, or do you do your own testing of the weapon? Are manufacturers or foreign suppliers asked to provide any available assessments of the weapons indicating their compliance with international law?
- How is the reliability of the weapons tested? How potential unpredictability of robotic systems could affect legal reviews processes? Has your State developed any standard on testing and validation? What is the level of reliability considered to be acceptable?
- Does the review mechanism undertake common testing with other States?
- Are weapons already fielded in the battlefield subject to regular review based on its technical performance?

Conclusion

There are a number of issues and themes which, in the view of the ICRC, merit the consideration of the Fifth Review Conference, legal review is one of them

In 2006, the Third Review Conference of the CCW urged States that do not already do so to conduct legal reviews of new weapons, means or methods of warfare. The Fifth Review Conference next year presents the opportunity for States to consider the importance of carrying out timely legal reviews of newly developed or acquired weapons.