



Meeting of Experts of the Convention on Certain Conventional Weapons

A purpose-oriented working definition for autonomous weapons systems

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Mr. Chair,

At the outset I would like to thank all panelists for their excellent presentations.

One important missing ingredient in the discussions about autonomous weapons systems in the CCW so far has been a shared conceptual understanding of what such systems are. Advancing our mutual understanding will put the Review Conference in a better position to frame our discussions as well to take our work forward. Yet, we agree with the many speakers who emphasized that having an agreed definition is not a prerequisite for further work.

Much of what I intend to say at this point can be found in more detail in Switzerland's working paper. You will have noticed that in paragraph 6 we suggest to describe, as a working definition for the CCW, autonomous weapons systems as

“weapons systems that are capable of carrying out tasks governed by IHL in partial or full replacement of a human in the use of force, notably in the targeting cycle”.

In yesterday's general debate and today, we took note of various approaches to the issue of definitions, which prompts us to elaborate on the reasoning behind our conceptual approach.

Mr. Chair,

In our view, it is premature to define autonomous weapons as those systems that we might want to regulate at a later stage. It is equally questionable, in our view, to define autonomous

weapons as a distant, abstract scenario or as systems that completely evade human control or supervision. This is in our view not the purpose of the definition that we should be seeking.

Instead, we propose that, at this stage, the CCW should aim for a purpose-oriented working definition that corresponds to where we are in this debate. Such a working definition would be developed for the purpose of our work in the context of the CCW. It should not seek to draw a line between desirable, acceptable or unacceptable systems, and should not pre-judge the question of appropriate regulatory response for such systems down the line. Such a purpose-oriented working definition has the following advantages:

- First of all, it includes various systems, present and future, without prejudice to the question of appropriate regulatory responses. The intention of including existing systems is not to define whether they are legal or prohibited. Drawing from our experience from existing systems, it would rather facilitate an in-depth discussion on the exact parameters that make emerging systems IHL-compliant or ethically acceptable.
- Second, by using the phrase “**capable of carrying out tasks....in partial or full replacement of a human in the use of force**” it avoids a lengthy and inconclusive discussion on terms like “automatic”, “semi-autonomous”, or “fully autonomous” by acknowledging that autonomy is a technological continuum which ranges from limited autonomous features of existing systems to more sophisticated, future autonomous systems.
- Third, it takes into account that “autonomy” per se is value-free, but that potential risks associated with increasingly autonomous systems depend on parameters going beyond autonomy, such as technical characteristics, methods of employment, the context in which a system is used, or the complexity of the tasks it performs.

Mr. Chair,

Proposals for characterizing and possibly defining autonomous weapons systems have commonly focused on weapon systems that have autonomous functions in the targeting cycle, notably in the selection (i.e. search for or detect, identify, track) and attack (i.e. use force against, neutralize, damage or destroy) of targets without further human intervention.

While Switzerland fully agrees that the interplay between engagement-related functions and human-machine interaction should take center stage in our discussions, defining autonomous weapons systems, at this stage, via a specific degree of control (human or otherwise, at one point or another) might be extremely difficult, perhaps impossible.

In fact, discussions about what critical functions are, and what would constitute the appropriate degree of control for such tasks are ongoing. It is one of the most complex topics that we have been dealing with. Only once we have a clearer understanding on what kind of control is needed for what critical function – or on the relationship between the engagement-related functions and the quality of the human-machine interaction – we can put it as a central element of an autonomous weapons system definition. This is why the definition proposed by

our delegation does not try to qualify the human machine interaction, and does only broadly refer to “tasks governed by IHL”.

Mr. Chair,

As a last point, as mentioned yesterday, we would like to suggest not to exclusively refer to *lethal* autonomous weapons. We should instead be aware of the fact that other autonomous weapons, even if they are not intended to have lethal, or anti-personnel effects, are relevant to compliance with IHL and could pose ethical or other challenges. Accordingly, in our definition we suggest to speak of **use of force**, without further specifying whether it is lethal or not, against humans or objects. *(We have no specific question for the panel but would be interested if panelists would further elaborate this point.)*

Mr. Chair,

As you see, we suggest, at this point in time, a definition tailored for our work under the CCW and, in this context, casting the net very widely in terms a working definition. We think this has several advantages for where we stand in our discussions. Of course, over time, the discussions on autonomous weapons systems will advance. Once the very finality of this process becomes clearer, the purpose of the definition will shift. This would of course require us to reassess, and perhaps adapt this working definition to emerging needs.

I thank you Mr. Chair.