



Group of Governmental Experts
on lethal autonomous weapons systems (LAWS) 2018,
Convention on Certain Conventional Weapons

**Agenda item 6 a) Characterization of the systems under
consideration in order to promote a common understand-
ing on concepts and characteristics relevant to the objec-
tives and purposes of the Convention**

Geneva, 10th of April 2018

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Thank you Mr. Chair,

At the outset, I would like to fully support the structured approach you presented yesterday. I would also like to commend you and your team for the useful chart summarizing a number of national positions in this regard.

Our delegation wishes to emphasise again, that in seeking to characterize AWS at this stage,

- the CCW is not aiming for a definitive binding definition,
- is not seeking to draw a line between desirable, acceptable or unacceptable systems, and
- is not deciding what needs to be regulated, and how.
- And we agree with your remarks yesterday that we should not prejudge the regulatory response with the characterization discussions.

Rather, our task is to gain clarity about the systems under consideration, and the challenges we are facing.

We are stressing this point because several delegations yesterday and today presented approaches which in our view would *exclude* from our work large parts of the systems that *should* be under consideration, by already prejudging what are “good” and what are “bad” systems. We do not think that the CCW should, at this stage of its work, establish a rigid, narrow and cumulative set of criteria which would have the effect that no foreseeable Autonomous Weapon System would *ever* fall under that working definition. In our view, it makes little sense to solely define the very tip of the iceberg, as such Autonomous Weapons Systems might never be developed, and *if* they were developed, would probably *not* meet legal and ethical norms or military requirements. A number of developments that warrant our consideration would also be excluded from the discussions.

Mr. Chair,

After this general note of caution against a too rigid working definition, let me briefly lay out our national contribution regarding the **working definition contained in our 2016 and 2017 working papers** and referenced in your compendium, in order to respond to your invitation to do so.

Switzerland suggested in 2016 (and 2017) to describe autonomous weapon 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”**.

We suggested this preliminary working definition in the context of our working paper “Towards a compliance based approach”. (We assume that this working definition, according to your four categories, would fall under the “accountability-oriented approach” or the “purpose-oriented approach”)

Our intention was to propose, at the early stage of the discussion, a highly flexible and inclusive working definition, to make sure that

- we do not exclude relevant developments or systems that would be interesting to look at under the perspective of compliance,
- we consider systems...
 - o no matter whether they are partly or fully autonomous
 - o no matter whether the tasks are related to use of force or otherwise governed by IHL and relevant for the CCW.
 - o we are able to learn from existing systems and the parameters that make them legally compliant.
- We did not want to single out systems which could be seen as unacceptable, legally objectionable or otherwise requiring regulation.
- However, we wanted to exclude systems, where “autonomy” is present with regard to mobility or navigation etc. and not linked to the use of force or systems where the

ultimate decision to use force in every instance remains with humans. Our intention was also to ensure that the CCW develops a comprehensive and inclusive approach as we take up the issue of AWS and to avoid an overly restrictively definition, as future “science fiction systems”.

We made it clear from the beginning that a *definition is a function of the finality*, and that, as discussions advance, working definitions should evolve and adapt to the specific purpose. *(UNIDIR described this very appropriately, saying that different definitions attend to different sets of concerns, and privilege different sets of characteristics.)*

Mr. Chair,

We remain convinced that IHL compliance should remain a central element of our work and we welcome that this consideration has been supported by so many / nearly all delegations. As the GGE’s deliberations have now arrived at different stage with a specific mandate to characterize the systems under consideration, let me highlight the following elements. Building on your suggested structure of our discussions, let me seek to articulate our consideration around what you have called the “separative approach”.

I will therefore make some remarks about which **elements regarding the characterization can, at this stage, be helpful and bring clarity (the “via positiva”)**:

1) The critical functions notably in the targeting cycle

We should now focus on the functions that are most relevant to the CCW’s object and purpose - the critical functions notably in the targeting cycle. We echo the many other delegations in this respect.

2) Human machine relationship

Different terms have been used

- The type and level of human involvement required or possible over this AWS.
- The human oversight and control needed or possible.
- The relationship to human command authorities.

We lend our full support to put the human machine relationship and the issue of accountability at the centre of a working definition. Will talk about this tomorrow.

Next, I would also like to underline **elements that in our view are *not* relevant for the characterisation (or as you have called it, the “via negativa”)**:

1) Lethality:

The element of lethality, though of particular concern in practice, should not be conceptually regarded as a prerequisite characteristic of autonomous weapon systems.

The “Intention of causing death” is not a necessary condition to categorize an Autonomous Weapons System as relevant for our work. Instead, a working definition should also cover means and methods of warfare

- that lead to indirect lethal effects, or
- that do not necessarily inflict physical death, but the effects of which may be restricted to causing, for example physical injury short of death, and
- physical destruction of objects.

As an example: We should not exclude from CCW’s work Autonomous Weapons System that are primarily developed against material. Anti-material systems are also regulated by IHL, and they can lead to significant collateral damage. We therefore see no reason to exclude anti-material system a priori. In addition, anti-material systems can have a secondary or ripple effects making them lethal even though this was not intended.

2) Degree of automation, or degree of autonomy

The word “autonomy” is a relative term, with different understandings in different disciplines. What matters is *not* “autonomy” per se. What matters is the nature of the tasks that are performed autonomously, the use of autonomy for a specific function or task, the extent to which humans are involved in the execution of the task carried out by the machine. (how autonomy transfers human control).

Likewise, we should not characterize the degree of autonomy because systems can go back and forth – from manual, to semi-autonomous, to autonomous – and just because an autonomous system has a manual button does not mean it is *not* to be considered.

3) The “stop button”

Some delegations have suggested to characterize an AWS as a system that, once activated, cannot be stopped. One delegation characterised this as “impossibility of termination”. This notion implies that an AWS *with* a stop mechanism, with a button to make the system return back to base, or with a self-destruction self-deactivation or self-neutralization mechanism should not be characterized as AWS, and should therefore not be considered by the GGE.

Such a capability to abort a mission is no doubt a relevant aspect, and can address some of the safety and security fears associated with AWS. But two points are to be considered:

First, “switching off” would merely cause that from that point forward, an AWS can no longer operate. The presence of a “switch off button” does in no way affect what happened in the time before, and would have no direct relation with the ability of the system to operate in accordance with relevant norms and requirements.

Second: Even if the system did not apply force prior to the decision to switch off, there is a risk that the human operator cannot come to a more IHL-compliant decision with regard to using the “stop button”, because he relies on the same information as the machine – information that is possibly inaccurate or incomplete.

We would therefore argue that the characteristic of “cannot be stopped” should *not* be a necessary condition to characterize an AWS.

4) Self-learning

Another element we think is less helpful for characteristics is the aspect of “self-learning”, which some delegations consider a necessary element. Even if a system is not as advanced that it can learn and adapt its behaviours and functions, it might be very relevant given the tasks it performs autonomously. If systems with self-learning capabilities should obviously be covered by our work, there are many systems that fall below that threshold that still require our attention and consideration.

5) Last but not least: mobility

Some delegations have suggested to only classify *mobile* systems as AWS. We cannot support such rigid, arbitrary criteria. Even if an AWS is not able to change its location, its autonomous use of force would be relevant for our considerations. We also need to consider that we are speaking of weapon systems where only one part of a larger whole may be mobile.

Mr. Chair,

We hope these remarks can contribute to arrive at a shared understanding under this agenda item.

Thank you for your attention.