



# CCW REPORT

Civil society perspectives on the CCW Group of Governmental Experts on lethal autonomous weapon systems  
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## THESE ARE THE DROIDS WE'RE LOOKING FOR

Ray Acheson | *Reaching Critical Will of Women's International League for Peace and Freedom*

It's been four years since we first began to discuss the challenges associated with the development of autonomous weapon systems (AWS) at the United Nations. In that time, states, international organisations, non-governmental organisations, industry, academics, and others have deliberated about the legal, ethical, political, security, and military implications of such weapons. Going into this group of governmental experts, it already seemed like it was time for our multi-stakeholder community to advance to the next level of its work—a political or legal response to prohibit or at least begin to put limits on the development and use of such weapons. But the consensus-based nature of the Convention on Certain Conventional Weapons (CCW) in which these talks have been held means that even though the vast majority of states are ready and willing to take some kind of action now, they cannot because a minority opposes it.

This is a frustrating position to be in, especially as we watch the research and development (R&D) of these weapons take firm hold in certain countries. During the past few years, and certainly many times again in the past week, we have been told that "fully" autonomous weapons do not exist and never will exist or be deployed. We are told that no country would use weapons over which it does not have control, and that we must not "interfere" with the development of autonomous weapon systems that have some sort of "appropriate level of human involvement" because they may bring us great benefits in terms of "protection of civilians" and "avoiding friendly fire".

These arguments, not surprisingly, come from countries that already have R&D programmes for AWS. Also not surprisingly, it is mostly countries that possess nuclear weapons that are making these arguments most loudly. (Note: this refers in particular to France, Israel, Russia, the United

Kingdom, and United States. Pakistan, in contrast, supports a prohibition.)

It is really rather difficult to listen to nuclear-armed states assure us that we don't need to worry about AWS and should not taken any action against their development, because those arguments sound so familiar it is like a lightning bolt to anyone who has listened to them talk about nuclear weapons.

They say:

- We (meaning, the rest of the international community) don't know what we're talking about when it comes to AWS because they don't yet exist (so we can't possibly regulate or prohibit them);
- We don't need to worry about "fully" AWS ever existing or being deployed, they won't let that happen (the, "These are not the droids you're looking for" approach to the argument); and
- AWS will bring us humanitarian and military benefits.

Replace with nuclear weapons:

- We (meaning, the rest of the international community) don't know what we're talking about when it comes to nuclear weapons because we don't have them (so we can't possibly regulate or prohibit them);
- We don't need to worry about nuclear weapons ever being used, they are for deterrence, silly!; and
- Nuclear weapons bring us humanitarian and military benefits because see b.

It's hard to listen to the nuclear-armed states tell us not to worry, that we don't understand, and that we have nothing to fear from their development of new weapon systems. It's hard to listen such assurances while they continue to invest billions of dollars into technologies of mas-

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Editor: Ray Acheson

[www.reachingcriticalwill.org](http://www.reachingcriticalwill.org)  
[info@reachingcriticalwill.org](mailto:info@reachingcriticalwill.org)



## These are the droids we're looking for, continued

sive nuclear violence; while they sell weapons for a profit to countries around the world, leading to a slaughter of civilians and incredible rates of displacement and destruction of towns and cities; while they themselves engage in bombings of towns and cities; and perhaps most importantly, while they kill civilians with impunity with semi-autonomous weapons like drones.

We are also told that the emerging technologies associated with such weapon systems are being driven and developed by civilian industry, not the military. This was even asserted in two drafts of the final report of this meeting, until states opposed to such conjecture finally succeeded in having it removed. We must not underestimate the role of the military-industrial complex in the development of weapon technologies—the attempt to conceal this in a UN document speaks volumes about the insidious nature of the complex and its relationship to certain governments.

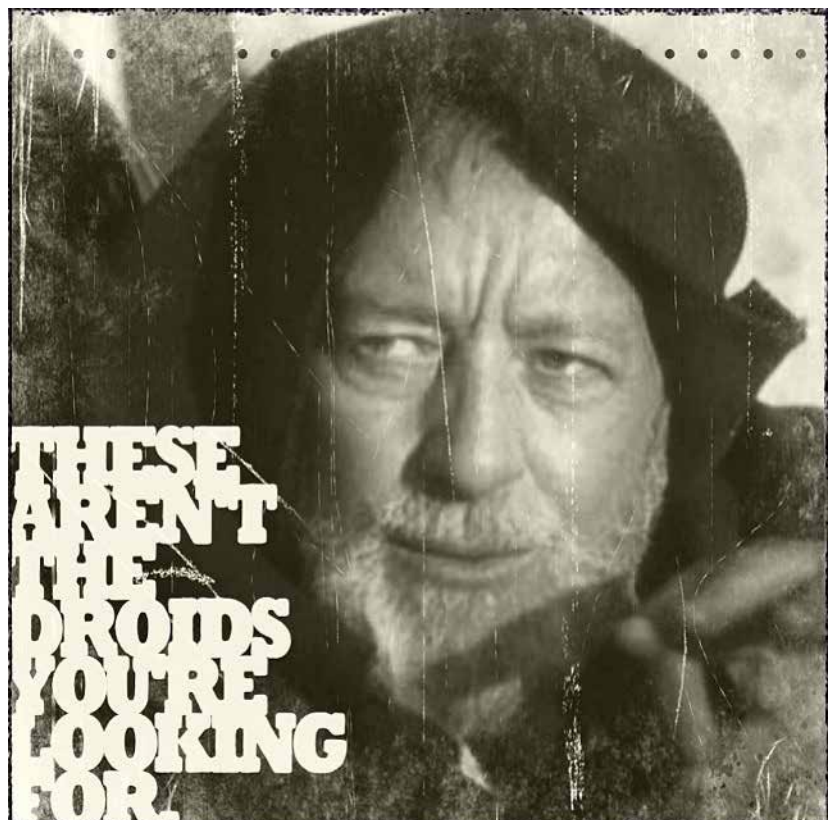
But all is not lost. Despite the attempts to leech the final report of ambition let alone policy direction, momentum is growing for a legally binding response to the challenges posed by AWS. With the Non-Aligned Movement's announcement at this meeting that it supports an international treaty to stipulating prohibitions and regulations on AWS, and three more countries joining the list of supporters for a prohibition, we do seem to be on the right track. Many European states indicated support for France and Germany's proposal for a political declaration and other voluntary measures on AWS. Some supporters of a ban indicated they could get behind a declaration as an interim step, as long as it is clearly oriented towards legally binding measures in the near term. In the meantime, the vast majority of states participating in these discussions accepted that some form of human control must be maintained over weapon systems.

This week, at the CCW annual meeting, high contracting parties to the Convention will take a final decision on the CCW's future work on this issue. The final draft report issued from the group of governmental experts last Friday recommends ten days in 2018, using the same mandate as this year's meeting.

The Campaign to Stop Killer Robots recommends the 2018 GGE meetings be action-oriented and focus on discus-

sions between states rather than expert level panels. States should focus on considering characteristics or elements of a working definition on AWS. It is time for experts from governments to make explicit where they draw the line in increasing autonomy in weapon systems and determine how to retain meaningful human control over weapons systems. The Campaign strongly suggests that states hold at least two separate GGE meetings in 2018, including one during the first quarter or half of the year. The GGE should pave the way to international negotiations on a legally binding instrument. States should agree to a formal negotiating mandate at the end of 2018, and conclude a new protocol by the end of 2019—a protocol that bans the development, production, and use of fully autonomous weapons.

It is not often that, as a community of international disarmament and arms control practitioners, we have the opportunity to prevent future horrors. With autonomous weapons, we have that chance. We know what it is like to go up against the vested powers of the military-industrial complex and militarily and economically powerful governments: we just did it by banning nuclear weapons. Instead of living under the weight of horrific tools of violence and inhumanity for decades as we've been forced to in the nuclear sphere, it would be prudent, to say the least, to take the challenge of autonomous weapons on now, before any humans have to suffer their use. •



## SUMMARY OF DAY FIVE

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The final day of the group of governmental experts included a panel discussion on emerging technologies in the morning, and deliberations and adoption of the final report in the afternoon.

### Panel 4: Emerging technology in the area of LAWS

Friday morning's panel featured a number of presentations on issues tangentially related to the issue of AWS. The following is a brief overview of the content of the presentations.

Dr. Ing. Konstantinos Karachalios, Managing Director, IEEE Standards Association, Mr. Neil Sahota, IBM Watson and University of California, and Dr. Reinhard Scholl, International Telecommunications Union spoke about machine learning and AI advances. In relation to advancing technology and AWS, Dr. Marcel Dickow, Stiftung Wissenschaft und Politik, urged delegates to agree on precise language and a set of basic definitions for their work, arguing that a common understanding of the technology and its characteristics is both possible and vital. He also called for discussion forums domestically and internationally where different stakeholders can discuss relevant topics. In this, he said it is crucial to continue to include independent scientific experts in the debate.

The other two speakers focused more on AWS directly.

Ms. Kerstin Vignard, United Nations Institute for Disarmament Research, talked about the risks of cyber attacks for AWS. While all weapons are vulnerable to attack, autonomous systems would face unique risks due to lack of human involvement. Potential vulnerabilities include the operator not knowing if the AWS was working correctly and had not been compromised; that the longer an autonomous weapon is deployed, the longer an adversary has to exploit any vulnerabilities; questions about whether an operator would be able to patch a glitch remotely, or recall the weapon or put it into failsafe; and questions about unexpected moves arising from machine learning. She is worried about cyber operations being used to subvert machine learning to undesirable or unlawful effect. Sensors can be spoofed or tricked, data integrity can be sabotaged, tests can be compromised.

Dr. Vincent Boulanin, Stockholm International Peace Research Institute, highlighted three pitfalls with AWS. He said that since the parameters of autonomy may vary, including over the duration of a machine, continued reference to concept of "LAWS" could be problematic, because these systems can trap states

into level at which systems could be deemed autonomous while from a legal and ethical perspective they need to be articulated from the standpoint of autonomy of critical functions. He suggested that such systems are best described as weapon systems with autonomous functions, and that military, legal, and ethical concerns must be articulated about autonomy within systems. At end of the day, he argued, any weapons using some kind of autonomy for targeting, regardless of how sophisticated they are, will still raise legal/ethical issues. Emphasising the nature of human-machine interaction or command and control relationship is important.

He also said that focusing on the case of "full autonomy" is problematic, as it doesn't reflect the reality of how the military is envisioning future. It also doesn't allow us to tackle the spectrum of challenges raised by progress in autonomy of weapon systems in the short term. We're not necessarily talking about completely eliminating role of humans in the battlefield, he noted, but we need to understand how machine-human interaction is being calibrated. With this in mind, he outlined three core questions that could be useful for future discussions: How are current/emerging technologies changing the way humans are making decisions in warfare? At what point do we consider that humans are so far removed from selecting and engaging targets that it would be problematic? What can we do to ensure human control remains adequate and meaningful as weapon systems become more complex and autonomous?

### Adoption of the report

Friday afternoon included a heated debate over the adoption of the final report. The Chair released an amended version of the draft report, as well as his summary of the discussions (Annex 2). Updates from the first draft included adding a reference to civil society's participation being "in accordance with the rules of the procedure"

Paras 6–8, have added a reference to the participation being "in accordance with the rules of the procedure" in paragraphs 6–8; adding a reference to the input of civil society in paragraph 14; and adding "prepared under the Chairperson's responsibility" to the description of the summary of the discussions in paragraph 15. On this basis, states adopted parts I and II of the draft report.

Part III of the report, which included paragraph 16's conclusions and paragraph 17's recommendations took the rest of the afternoon. The Chair outlined the changes made from the original version, which

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**ADOPTION OF THE REPORT**

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were based on the discussion on the draft held Thursday afternoon. Following this explanation, states continued to express their views on the draft and make suggestions for amendments.

The majority of states participating in this discussion expressed their dissatisfaction with the lack of ambition presented in the draft. Several were disappointed that not only were the two widely supported pathways for action—a legally binding instrument and a political declaration—not even mentioned, but the range of items included in the conclusions seemed narrower than the 2016 mandate and than the topics covered during the GGE discussions. Others, such as Chile, said they are concerned at the lack of urgency expressed through this document, reflecting that most delegations see this as a threat and do not want to act when it's too late.

The Chair said from a national perspective he shares this disappointment but argued that it sharpen the focus for next year's discussion. He argued that policy directions could be discussed next year.

After an extensive exchange on these themes and on specific points, a few points were changed in the final version:

- After Mexico, supported by many others, objected to the phrase that the CCW is “the” appropriate forum for dealing with AWS, 16(i) now says it is “an” appropriate forum. However, the phrase “without prejudice to work in other forums” was deleted.
- In the second draft, 16(ii) stated that IHL “continues to apply fully to the potential development and use of LAWS in armed conflict.” After several delegations expressed concern that this could suggest it did not apply to other weapon systems, it was changed to read, IHL “continues to apply fully to all weapon systems, including the potential development and use of LAWS.”
- The Chair had already removed the first part of ii in the second draft, which started, “Regardless of whether there exit LAWS today or in the future...” Several countries such as Brazil and others objected to the removal of this point, but it remains out of the final draft.
- Brazil and others also continued to object to the Chair's use of the term “appropriate human involvement” in 16(iii), arguing this prejudices discussions on the best term to describe “meaningful human control” or “appropriate human judgment” as variously proposed during discussions. In the final version, this reference is changed from “Appropriate human involvement with regard to the use of lethal force is an essential

element in this regard” to “The human element in the use of in the use of lethal force should be further considered.”

- A change between the first and second version of the draft also emphasises that the responsibility for the deployment of any weapon system in armed conflict remains with states.
- 16(iv) sparked a lot of debate in relation to its assertion that civilian industry is driving the development of emerging technologies in the area of LAWS. A number of delegations pointed that that the military is also involved in and a driving force for some of these developments. Others also noted the problematic phrasing suggesting that there could be “peaceful uses” of LAWS. Thus this bullet was changed to read, “Acknowledging the dual use nature of technologies in the area of intelligent autonomous systems that continue to develop rapidly, the Group's efforts in the context of its mandate should not hamper progress in or access to civilian research and development and use of these technologies.”
- In the final version, 16(vi) was changed from “characterization of the scope of the systems under consideration” to “characterization of the systems under consideration”.
- After much deliberation, 16(vii) was shortened considerably and made more action-oriented, after already being reworded from the first draft. It now says, “There is a need to further assess the aspects of human-machine interaction in the development, deployment, and use of emerging technologies in the area of LAWS in the next stage of the Group's work,” and no longer specifically refers to the various dimensions or stages to which this applies.
- 16(viii)'s reference to the need for further “systematic” discussion has been removed after several delegations pointed out we have already undertaken four years of systematic discussion on this topic and we need to now move to action. In addition, “possible pathways” was changed to “possible options”. •



## INCENDIARY WEAPONS: TIME FOR AN OVERDUE REVIEW

Allie Brudney and Sofia Falzoni | Harvard Law School International Human Rights Clinic

For the first time since the Convention on Conventional Weapons (CCW) was adopted in 1980, Protocol III appears as a separate item on the agenda of the Meeting of States Parties. States should seize this opportunity to have robust discussions of the humanitarian harm caused by incendiary weapons and the adequacy of Protocol III.

In their statements, countries should express support for a formal review of Protocol III and condemn recent use of incendiary weapons. States that have previously spoken should reiterate their concerns and provide more detail about their national positions and policies. New states from all regions should add their voices to the debate. States should also ensure that the Meeting of States Parties sets aside more time in 2018 for discussions of Protocol III. They should ultimately work to strengthen the protocol, which would improve protections for civilians.

Incendiary weapons are cruel and indiscriminate weapons that produce heat and fire through the chemical reaction of a flammable substance. Due to their extreme heat, they inflict horrific injuries, including fourth- and fifth-degree burns and respiratory damage, and cause long-term and permanent harm. Victims can suffer from psychological trauma and socioeconomic exclusion because they may be socially shunned due to their severe scarring and disfigurement.

In 2017, Human Rights Watch verified 22 attacks with incendiary weapons in Syria. Many additional attacks have been reported. The coalition of Syrian government and Russian forces used incendiary weapons in at least five Syrian governorates between February 1 and April 17, 2017. From 2012 to 2016, Human Rights Watch documented at least 68 attacks by Syrian government forces or their Russian allies as well as several cases of severe civilian harm. Syria is not a state party to Protocol III, but Russia is.

The ongoing use of incendiary weapons in Syria highlights the importance not only of compliance with and universalization of Protocol III, but also the need for a stronger norm, which can increase stigma and influence even those not party to the protocol.

States parties should strengthen Protocol III in two ways. First, the arbitrary distinction between air-dropped and ground-launched use under Article 2 should be eliminated. Article 2 prohibits all use of air-dropped incendiary weapons in concentrations of civilians, but it includes an exception that allows the use of ground-launched incendiary weapons if the military target is “clearly separated from the concentration of civilians and all feasible precautions are

taken to limit the incendiary effects” and minimize harm to civilians.

Because ground-launched incendiary weapons are just as harmful and indiscriminate as air-dropped models, this loophole poses great risks to civilians. For example, Human Rights Watch documented attacks with ground-launched incendiary weapons on two towns in eastern Ukraine in 2014, which destroyed homes and endangered civilians.

Second, the definition of “incendiary weapons” in Protocol III must be changed from a designed-based definition to an effects-based one. Protocol III’s current definition of incendiary weapons encompasses only weapons “primarily designed to set fire to objects or to cause burn injury.” It excludes munitions with incidental incendiary effects, such as those with white phosphorus, which are primarily designed to create smokescreens, provide illumination, or serve as tracers.

White phosphorus can produce the same cruel effects as other incendiary weapons. It can burn through human flesh to the bone and reignite days after treatment if exposed to oxygen. In 2009, Israel launched approximately 200 white phosphorus munitions into populated areas of Gaza, killing at least 12 civilians and injuring dozens more. In 2017, the US-led coalition used white phosphorus while fighting to retake Raqqa and Mosul from the Islamic State. While Human Rights Watch has not confirmed casualties from these incidents, the *New York Times* reported that munitions containing white phosphorus hit an Internet café, killing approximately 20 people.

The inadequate provisions of Protocol III are a legacy of the US war in Vietnam and Cold War politics. Over the past four decades, Protocol III has failed to eliminate the use of and harm caused by incendiary weapons, especially in populated areas. It is time for states parties to acknowledge the growing support for change and revisit this outdated protocol. In so doing, they can better protect civilians from the grievous and long-lasting injuries inflicted by incendiary weapons. •

### Notes

1. Anne Barnard, “U.S.-Led Forces Said to Have Used White Phosphorus in Syria,” *New York Times*, 10 June 2017, <https://www.nytimes.com/2017/06/10/world/middleeast/raqqa-syria-white-phosphorus.html> (accessed 29 October 2017).

