

CCW REPORT

Civil society perspectives on the CCW Group of Governmental Experts on lethal autonomous weapon systems 25–29 March 2019



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The views expressed in this publication are not necessarily those of WILPF or the Campaign.

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WILL THE "INSIGNIFICANT STATES" PLEASE STAND UP

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n Wednesday morning, as delegates participating in the current round of UN talks on autonomous weapons discussed "possible options" for moving forward on this issue, a mounting swell of voices calling for a ban on these weapons could be heard loud and clear. Numerous diplomats and activists from around the world advocated for work to begin now on developing a treaty to prohibit or regulate autonomous weapon systems in order to ensure the retention of meaningful human control over the use of force, on ethical, legal, political, and technical grounds. Clearly anxious about this, those against a ban or other legally-binding solutions attempted to rally the opposition. Quoting from the preamble of the Convention on Certain Conventional Weapons (CCW), Finland stressed the importance of the "militarily significant states" participating in discussions, current and future, on autonomous weapons. By the afternoon, those promoting non-binding declarations, or no action at all, held the floor.

This emphasis on "militarily significant states" is reminiscent of responses faced in the nuclear sphere for most of the last seventy years. It is exactly why it took so long to prohibit the worst weapon of mass destruction humankind has created (so far). The states possessing nuclear weapons, and their allies who perceived benefit from hiding behind their arsenals of terror, held an iron grip on what was considered credible and realistic in diplomatic and academic debate. During that time, nuclear weapons poisoned the earth, land, and water for countless generations in so many places around the globe. They incinerated human beings in Japan, twice, and have kept the world under constant threat of an atomic holocaust. When governments that are apparently considered to be "military insignificant states" objected to this state of affairs and worked together with activists and the Red Cross to prohibit nuclear weapons, they were ridiculed by other governments, described as "not really serious states" and "radical dreamers;" they were told that they did not have real security interests and that they were being "emotional".

The idea that those governments that have the capacity to destroy the world in moments should have more of a say over international security is Kafka-level absurd. It is generally the same countries that consistently prioritise the economic interests of the military-industrial complex or the political interests of dominancehungry governments over the protection of human beings. They invest more money in weapons and war than they do in the well-being of their own populations, sinking more economic and human capital into designing new ways to kill each other than into solving our common crises of climate change, environmental degradation, and poverty. It is shameful that the CCW, while also purporting to advance disarmament by "putting an end to the production, stockpiling and proliferation of such weapons" enshrines the importance of "military significant states" in its text-and perpetuates it in practice.

Militarism vs international law

These are the same countries that at this meeting proclaim it is "premature" to develop any legal or other measures to prevent the development of weapons that would kill and destroy without human control. Countries like the United States, which is apparently more concerned about the possible "stigmatisation of technology" than with preventing an arms race of automated violence, and thus "cannot accept" any attempts to negotiate a prohibition on autonomous weapons. Russia, too, is against any legal or political measures, moratoriums, codes of conduct, or anything that could possibly constrain its pursuit of killer robots. It says that any justifications for a ban on autonomous weapons that uses the moral foundations of international humanitarian law will lead to an artificial division of "good" and

Editorial, continued

"bad" weapons—as if international humanitarian law is not meant to constrain "bad" actions by states and their agents during warfare. Morality, as a system of values and principles of conduct, seeks to prevent the worst possibilities of human behaviour. It is incredibly disturbing to hear representatives of "militarily significant states," especially those with nuclear weapons, speak out not just against the development of certain weapons but against the frameworks that the human species has developed over time to guide our lives and our collective societies.

Some governments, like the United Kingdom, argued that a legal instrument prohibiting or regulating autonomous weapons "would not have any practical effect". The UK delegation prefers "continued commitment" under existing national and international law, which it feels are sufficient to govern the development of robots that kill people. The "existing law is sufficient" assertion has been voiced repeatedly by the countries that oppose negotiating a prohibition on autonomous weapons—it is an easy line, one that was also said against the prohibitions on landmines and cluster bombs and other attempts to stop the indiscriminate killing of civilians. The Netherlands, which hosts US nuclear weapons on its soil, even claimed that rushing to political or legal agreements "can weaken or hollow out existing humanitarian protections," apparently suggesting that a ban on killer robots could undermine existing international law.

The idea that a legal treaty would not be "practical, acceptable, and enforceable," as these countries argue, should be concerning to anyone who cares about the resilience of international law or arms control. Rejecting the attempt to agree to new standards and rules around unprecedented weapons technology threatens the international's community's reliance on the rule of law to govern inter-state relations or conduct on the battlefield. Such arguments against new law can be read as antagonism towards international law as a legitimate constraint on the state's monopoly on the means and methods of violence, which (not-so-ironically) undermines the existing international law that these same governments claim are sufficient to regulate state behaviour.

A new international legal instrument would not have any negative effects on states, said the Brazilian delegation, if all are adhering to international law already. Unless, it questioned, have we moved to a scenario where "might makes right?"

Legality and morality

Preventing such a move is why the "unserious" or "militarily insignificant" states are taking a stand

for both law and morality at this meeting. European countries such as Austria and to some extent Belgium, Ireland, and Switzerland, together with Latin American governments including Brazil, Chile, Costa Rica, Cuba, Ecuador, Mexico, Panama, and Peru, as well as others such as Algeria, Pakistan, South Africa, and the Non-Aligned Movement have spent the last few days reiterating their moral, ethical, political, legal, technical, and operational concerns with increasing autonomy in weapon systems. Their concerns about autonomous weapons demonstrate that they do not see any benefits from having sensors and software programmed to find, fix, and fire upon targets. They do not see any benefit from granting machines the ability to kill and destroy, or from distancing humans ever further from the act of committing violence against other humans.

"How much suffering could have been spared if the international diplomatic community had addressed the problems of landmines and cluster bombs sooner than we did?", asked the delegation of Peru on Wednesday. Right now, we have the chance to prevent human suffering from the further automation of violence, and we must seize this moment. "Diplomacy should not be overtaken by realities on the ground," cautioned the Austrian ambassador. "Doing nothing while these novel and unique weapons are gaining increasingly levels of autonomy is not an option," said Pakistan.

The message from all of these governments is that the time is right to negotiate a legal instrument on fully autonomous weapon systems. We have enough clarity on the core concepts and technologies to do so, and we have the urgency as well-without new law, the unfettered autonomation of violence will continue until it overtakes us. Already we can see the emergence of machine warfare and policing on the horizon, from Australia's investments in trying to build "ethical" autonomous weapon systems to the United States' "unapologetic" pursuit of "artificial intelligence-enabled weapons". All of this provides the backdrop for the UN talks, at which these governments seek to stall progress to ensure their tech is built before the rest of the world can stop it. While a handful of governments may wish this for our future, the majority clearly do not. The military allies of the most "significant states" seem hesitant to step up to stop this, suggesting declarations, codes, and principles. So once again it is the "insignificant states" that once again need to stand up and take the lead for the sake of humanity, as they have done with incredible significance on other humanitarian disarmament initiatives.

PUBLIC OPINION DEMANDS A BAN ON KILLER ROBOTS

Daniel Moubayed | Harvard Law School

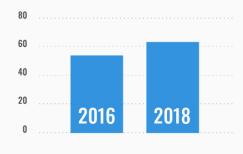
n Tuesday 26 March, the Campaign to Stop Killer Robots hosted a panel discussion, chaired by Mary Wareham, to emphasise the growing public support for a ban on fully autonomous weapons. The panel was comprised of activists from different regions calling for a ban to stop killer robots, including Dr. Thompson Chengeta, of the University of Southampton in the United Kingdom; Alena Popova, founder of the Ethics & Technology Analytics Center in Russia; and Liz O'Sullivan, an activist and operations leader in the artificial intelligence (AI) industry, based in New York. While their experiences and perspectives were diverse, their message was clear and consistent: the world knows about the challenges presented by killer robots, and countries must swiftly move towards a negotiating mandate for a solution.

The panelists drew on their personal experiences to implore participants to engage meaningfully with the CCW process and quicken the pace towards a ban. Dr. Chengeta opened the discussion and highlighted that public demand for a solution to the problem of fully autonomous weapons has been growing since 2013 and detailed the legal lens through which to understand substantive discussions on human control of autonomous weapon systems. Ms. Popova cautioned participants, stating that "we are in the 'last century of humanity,'" fighting for the future. She referenced the December 2018 IPSOS Public Perceptions survey, which found that 61 per cent of respondents across 26 countries around the world oppose the use of lethal autonomous weapons systems. Among those opposed, 66 per cent say that they believe these systems cross a moral line as machines shouldn't be allowed to kill. Finally, Ms. O'Sullivan recounted her decision to leave Clarifai, her previous employer, on moral grounds based on her objections to some of the company's projects related to the defence industry. Ms. O'Sullivan presented her six reasons why fully autonomous weapons are ethically indefensible.

The presentations generated a healthy discussion in the room, with participants asking detailed and thoughtful questions regarding the application of international humanitarian law, normative frameworks, and the call for more detailed discussions from states present at the CCW meeting this week. In response to the discussion generated by the presentations, the panelists cautioned all stakeholders to be wary of arguments about precision based on false premises and fallacious reasoning. Panelists highlighted the importance of remaining within the confines of the legal parametres established by customary international law and international humanitarian law on the way towards securing a mandate for a legally binding treaty. Panelists also provided helpful representations of machine learning as "a rocket ship in the direction you're already going," to emphasise that machine learning and artificial intelligence may not actually prove more precise or capable than human action.

The panel discussion concluded with a final message to states that the Campaign to Stop the Killer Robots is ready and willing to speak to countries that want to prohibit and regulate autonomous weapons and move towards a legally binding instrument now. As discussion continues to drag on, the voice of the Campaign to Stop Killer Robots continues to grow louder, as more non-governmental organisations (NGOs) join in the Campaign's efforts. At present, 28 countries have joined the call for a ban on killer robots, and the Campaign's advocacy will continue to grow and attract a wider audience in the future. Coupled with action in national parliaments and media campaigns, public concern for the issue is on the rise. The Campaign made clear that it will not be ignored and, one way or another, the path forward to a solution on the killer robots problem is its demand. •

Opposition Is Rising



61% oppose killer robots up from 56% two years ago. Only 22% do not oppose.

Source: IPSOS survey. Public perceptions of lethal autonomous weapons systems, December 2018.



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NEWS IN "BRIEF"

Allison Pytlak and Katrin Geyer | Reaching Critical Will, Women's International League for Peace and Freedom

The following is intended to provide a snapshot of discussions from 27 and 28 March at this GGE. It does not capture all positions or views.

Wednesday, 27 March 2019

Agenda item 5e) Possible options

Legally binding instruments

- The Non-Aligned Movement (NAM) stressed the need for a legally binding instrument laying down regulations and prohibitions to address international security and humanitarian concerns of autonomous weapon systems (AWS).
- Costa Rica, Peru, Pakistan, Iraq, and Venezuela spoke in favour to broaden the GGE's mandate to start negotiating a legally binding instrument that regulates and prohibits weapon systems that are fully autonomous.
- Ecuador said it was open to discuss the scope of the instrument, which could ideally would prohibit or regulate AWS. Algeria and Panama support a legal instrument.
- Cuba stated that the CCW is best forum to negotiate and adopt a prohibition on AWS and to regulate semi-autonomous weapons pursuant to international law.
- China and South Africa supported the formulation of a legally-binding instrument to restrict or regulate AWS.
- Austria, Brazil, and Chile called on states to start negotiations on a legally binding framework to ensure meaningful human control over critical functions of weapon systems. Peru stated its support for this proposal.
- Belgium favoured a strong political declaration or a dedicated legal instrument to prevent the development of AWS.
- Ireland sees merit in a political declaration but also in developing a legal instrument designed to ensure human control.
- While expressing support for any options articulated so far at the CCW, Ecuador stressed that none of the alternatives can ensure the implementation of sufficient measures as they are not legally binding. Peru and Chile said they were not against any other measures only if they lead to a legally binding instrument.
- The Campaign to Stop Killer Robots outlined nine reasons why the GGE should agree on a mandate to negotiate a treaty banning AWS and asserted it could not support alternative approaches that fall short of creating new international law. The

- Campaign's arguments include clarification of obligations, closing accountability gaps, ethical objections, public expectations, concerns over arms race, the evasion of Article 36 reviews, and the need to protect the reputation of peaceful and beneficial artificial intelligence (AI) research.
- Human Rights Watch (HRW) observed that only a small number of states oppose a legal instrument, whereas a majority support one. HRW noted that those few states are seemingly looking for a green light to field autonomous weapons. They are rejecting a red light, and even a yellow light of caution.
- The Center for International Security and Policy (CISP), HRW, Seguridad Humana en Latinomérica y el Caribe (SEHLAC), Protection Against Armaments, the Women's International League for Peace and Freedom (WILPF), and Future of Life Institute all urged states to agree on a mandate to negotiate a ban on AWS.
- The International Committee of the Red Cross (ICRC) noted that serious questions have emerged whether existing international humanitarian law (IHL) is sufficiently clear or whether there is a need to develop new law and rules, and that states have to reach common understandings on the practical elements of human control.
- The United Kingdom (UK) argued that the continued divergence of views makes a mutually acceptable, practical, and enforceable legal instrument unlikely in the near future.
- The United States (US) said it could not support
 a legally binding instrument to ban or regulate
 AWS at this time because of differences of views
 over AWS' characteristics, and the degree of human control, amongst others.
- The UK and the US said that there is no empirical evidence as to the shortcomings under existing law to regulate AWS.
- France argued that negotiating a legally binding instrument or a preventive ban would be premature.
- Russia also does not support a legal instrument.
- Poland and the Netherlands said they do not see the need to introduce a new legal framework aside from the existing framework under IHL.
- Estonia is not convinced that a new legal instrument on AWS is needed and asserted that IHL is a robust and dynamic regime that can deal with a wide range of weapon systems.



- Italy feels a treaty is not the most suitable response given that there is no agreement on basic elements, including a definition or key characteristics.
- New Zealand suggested that states could discuss a possible legal prohibition as part of on-going discussions in the CCW to review progress overall on the autonomous weapons issue.
- Switzerland stated that the "time is not ripe" for a legal instrument and listed key questions that could be useful to explore, such as if it would stipulate prohibitions or positive obligations; if the latter, how would it be operationalised in different contexts?

Political declaration

- NAM, Ecuador, Peru, Iraq, and Venezuela stressed that a voluntary political declaration cannot replace a legally binding instrument.
- Peru noted that a political declaration could have positive effects as interim step.
- Mexico described it has a half step.
- New Zealand supports a political declaration and noted agreeing one would not exclude a legal agreement later on.
- The UK and Estonia said that they were willing to engage positively on the option of a political declaration.
- Spain and Sweden support a political declaration and believe it could lead to a code of conduct, although Sweden cautioned that more discussion of modalities is needed.
- Luxembourg asserted that existing norms should be strengthened by a non-legally binding political declaration. It expressed support of the proposal made by Germany and France and sees the declaration as a first step towards a possible code of conduct.
- Argentina observed that the political declaration could represent an equilibrium between all states parties.
- France referred to its joint proposal with Germany and informed that it was open about the form this could take.
- Germany argued that a political declaration would be the middle ground and should be based on the Possible Guiding Principles agreed by the GGE in 2018. Other states, including New Zealand, Sweden, Spain, Bulgaria, Switzerland, Latvia, Poland, and Italy agreed that the 2018 Possible Guiding Principles are a good basis for discussion.

- Ireland sees merit in a political declaration.
- HRW remained sceptical that a political declaration would be a step toward a legal instrument.
- The US and Russia do not support a political declaration. The US argued that there is instead a need to genuinely engage on relevant concepts.

Guidelines, principles, or codes of conduct

- The UK said it is willing to engage positively on the options of a code of conduct.
- The EU, the Netherlands, Finland, and France asserted that the 10 Possible Guiding Principles adopted in 2018 provide a sound basis for general progress. NAM also welcomed the 10 Possible Guiding Principles. Israel described them as an ambitious product. The UK stated that the principles could form a useful set of guidelines when considering the challenges posed by AI and autonomy. Finland suggested to remove "possible" ahead of the title "Guiding Principles" to give them a more concrete standing. The US said the GGE should build on and expand the Principles
- The EU and Estonia noted it was crucial to now "operationalise" the Principles. The UK and the Netherlands said that the CCW could seek to operationalise the Principles and to integrate them into existing regulatory structures.
- The US supported the suggestion to identify and compile existing legal obligations within IHL related to AWS.
- Germany suggested that its proposed political declaration could inform a politically-binding code of conduct or a compendium of best practices.

Improving implementation of existing legal requirements, including legal reviews of weapons

- NAM stressed that legal reviews of weapons cannot replace a legally binding instrument to regulate LAWS.
- Luxembourg, Bulgaria, Estonia, and Israel supported the sharing of best practices of legal reviews of new weapon systems. Luxembourg asserted this to be a good example to strengthen IHL, and to increase confidence and transparency measures.
- Italy stated that sharing about legal weapon reviews would be beneficial but with due respect for national security needs and industrial property rights.
- New Zealand and Australia are interested in the idea of a compilation document of existing appli-



- cable international law, as proposed by Portugal earlier in the week.
- Bulgaria believes that national reviews play an important role in ensuring that the development and use of autonomous weapons compiles with IHL norms and principles but should be examined against bias.
- Luxembourg and Belgium asserted that Article 36 reviews are insufficient on their own.
- The ICRC reiterated that national weapon reviews are not a substitute for working toward internationally agreed limits of autonomy in weapon systems and that ethical considerations may go beyond those found in IHL rules.
- Argentina informed of its submission of a questionnaire to allow for analysis on how to strengthen IHL and to compare different national mechanisms. It reiterated that this was not an alternative for a political declaration or a legallybinding instrument but would be complimentary. The United States welcomed Argentina's initiative.
- Ecuador noted that legal reviews of weapon systems will not have the same scope as a legally binding instrument specifically regulating AWS.
- Ecuador, Peru, Chile, and Austria expressed concern that weapon reviews lack transparency.
 Austria and Chile added that there was a lack of legal clarity and common understanding with respect to national legal weapon reviews.
- China and Chile expressed concern that national reviews are not legally binding and vary from country to country in terms of policy and criteria.

Other

- Australia suggested "continuing to deepen and widen" understanding about these technologies.
- Russia would welcome an expansion of the membership of states bound by Additional Protocol II of the Geneva Conventions and re-affirmed that IHL already has important restrictions that do not need modernisation or adaptation.
- NAM, Algeria, and Iraq called on states to declare a moratorium on the development and use of AWS. Russia would not support this.
- Ireland advised a focus on reaching common understandings about the issue of characteristics, in order to determine the most suitable policy response.
- Switzerland noted that many of the options are not mutually exclusive. It elaborated that compliance with IHL already requires specific implemen-

- tation measures, but this may need to be complemented through additional means.
- Japan elaborated ten elements for consideration in an effort to reduce differences of understanding amongst delegations. The elements combined suggested areas of focus within thematic points or how to be more precise; as well as process considerations for future discussions such as interim informal consultations or engaging diverse perspectives.

Agenda item 5a) Challenges to IHL

- Mines Action Canada highlighted that IHL is not static. It questioned why states felt that IHL was insufficient for cluster munitions, which are tangible and straightforward weapons, but is sufficient in relation to autonomous weapons.
- The US stated that its practice of legal weapons reviews of weapons is part of a broader process that also includes development and acquisition phases and includes an assessment of operational effect, operational suitability, and survivability of the weapon system in question. It presented an example that specifically focused on how the assessment is undertaken with a view to ensuring that the weapon can distinguish between combatants and civilians, but noted that this assessment is separate from the legal review.
- The US responded to recommendations made by other delegations to establish standards around type, level, reliability, and predictability in relation to human control. It believes that if the GGE wants to engage in these kinds of discussions it would require technical and factual information, with specific examples and the participation of technical experts.
- Bulgaria noted that using autonomous weapons in complex environments, such as urban spaces, will lead to breaches of IHL and its principles. It stated that the responsibility for use remains with a commander and human operator, who must understand a system's performance, be able to envisage its biases, and accurate functioning, and can react in order to avoid escalation.
- Bulgaria said that national weapons reviews are important, and that autonomous weapon systems must also undergo those processes in a variety of stages. There is however no guidance for states on how to conduct these reviews. It noted that there would be legal challenges should a weapon be modified, especially on the basis of machine learning.
- The International Panel on the Regulation of Autonomous Weapons (IPRAW) said that national



reviews remain important but are insufficient. There is a need to universalise their practice and make them more efficient, particularly as the testing of weapons with machine learning and/or AI will have unique challenges that could lead to reviews with incomplete information.

Thursday, 28 March 2019

As Thursday's discussions on the draft chair's summary of discussions were informal, the following provides a brief overview of the conversations without applying attribution to delegations.

Agenda item 5d: Military applications

• Some states noted that some of the issues addressed in this section could be phrased differently and moved to "points of convergence," such as paragraphs 6 and 7.

Paragraph 1

- Some states opposed the inclusion of the term "human involvement" and suggested that the document should consistently refer to "human control," while fewer states preferred "human involvement".
- Others implied that "control" is a contested term in itself. One state encouraged qualifying the term "human control" to advance discussions.
- Another state noted that it is wrong to assume that human control is already asserted, as this is more of an aspiration and the reasons for the GGE's establishment.

Paragraph 2

- Some states suggested the deletion or adaption of "or are superior to autonomous weapons." The Campaign to Stop Killer Robots noted that this could set up a dynamic where humans have to "prove" they are superior.
- Some states suggested to delete "completely" in the first sentence, which states that "autonomous systems can supplement but must not completely replace human decision making with respect to the use of force...".
- Some states expressed there was a lack of clarity on "autonomous functions" and suggested the term should be removed.
- Some suggested replacing "supplement" with "can have benefits", for the sentence to read "autonomous systems can have benefits but must not completely replace human decision making with respect to the use of force...".

Paragraph 3

• Some states supported the paragraph as it is. It stipulates, "Weapons reviews are a constructive

- tool for ensuring weapons that employ autonomy comply with international humanitarian law."
- Many states asserted that Article 36 reviews need to be strengthened. Many stressed that nationallevel legal weapon reviews alone do not ensure the application of IHL once a weapon review is carried out, as they are fallible and vary from state to state. Some noted the importance of transparency and confidence building measures in this regard.
- Some suggested describing weapon reviews as "useful" rather than "constructive" and to replace "ensure" with "promote compliance with".
- One state noted it could only accept the inclusion of this theme under "convergence" if it was not described as a "tool," as these reviews can't substitute multilateral regulations and prohibitions.
- The Chair encouraged states to look at weapon reviews as a tool in and of itself and not as a threat to something else that could be achieved.
- Some states called on those that question the utility of weapon reviews to share their specific concerns and concrete examples.
- Some suggested fleshing out this paragraph more by citing current national practices that were shared throughout the week.

Paragraph 4

- Some said there is no need to reference the responsibility of the state as the use of force is always attributable to a human and not to a state.
- Others noted that this paragraph could be clarified by making a distinction between two forms of responsibility, and that state and human responsibility are not mutually exclusive.
- Others would like to see this paragraph strengthened by replacing "is" with "must be" or "should be" attributable.

Paragraph 6

- Some states suggested including references to international law and international human rights law, while few states opposed the inclusion.
- Other states suggested including not only ethical perspectives but also moral and "technical" ones.
- A few states suggested replacing "analyses" with "views," as there currently does not exist a final assessment on the risks of weapon systems with autonomous functions.

Paragraph 7

• Many states supported this paragraph. Many suggested to strengthen and expand it further, with



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- the risk of data sets being "incomplete," "malfunctioning," or "unpredictable".
- Some asserted that this paragraph could be moved to points of convergence as no state seems to have objected to this. The Campaign to Stop Killer Robots suggested to replace "could" with "would," as it is impossible to build an unbiased dataset.

Paragraph 8

- Confusion was expressed about the term "autonomy as a spectrum" and it was suggested to delete or adapt it. A few states wanted to keep this description.
- Others questioned the inclusion of the contested terminology of "fully autonomous weapon systems," and asserted that this topic should be addressed elsewhere.

Agenda item 5(b): Characterisations Paragraph 1

- Where the opening paragraph suggests that "a technology-agnostic approach focusing on human involvement in the use of force was the most fruitful way forward," some states felt that the phrase "technology-agnostic approach" is awkward or insufficient. They suggested could be rephrased to better reflect the desire of the Group to discuss the issue of autonomous weapons in a way that emphasises the centrality of human behaviour and is not negative toward technology.
- Some recommended that in order to have consistency within the paragraph, and the summaries, it should not use both "human control" and "human involvement" interchangeably. Others were concerned about the meaning of either, or both, of those terms or preferences for one or the other.
- Some said that it may be too early to assert the linkage between this paragraph and the agenda item on "The human element," and that all elements are linked.

Paragraph 2: "Relevant characteristics"

- There was discussion about adding "engagement" into the bolded part of 2(a), so that it would refer to, "Autonomy in the targeting and engagement cycle". Others felt that this would be redundant because the word "engage" is used elsewhere in the paragraph. It was expressed that clarity on this term is important.
- A state noted the importance of recognising autonomy in the targeting cycle as a principle characteristic.

- Some states noted that the listed characteristic of "discriminacy" (2g) relates closely to the IHL principle of non-discrimination, and that interplay between the these two as a principle of IHL and a characteristic would warrant more elaboration.
- A point was raised about 2(e), which is the characteristic of 'Explainability', stating that this not a new problem or issue for weapons use, although there are certain new challenges posed by autonomous weapons.
- A state noted that there is some tension between the limitation of noting the "remit" of this GGE in the chapeau-like line and the content of 2(a), as well as the broader remit of the CCW.

Paragraph 3(a)-(i): "Relevant characteristics"

- Some textual changes were suggested, including to merge the listed characteristics of "self-adaptation" (3a) and "self-learning" (3c) because they are similar; and to reference "objectives" alongside "goals" in 3(a), which relates to the characteristic of a weapon being able to self-adapt its goals or to its environment. One state encouraged adding "proper" ahead of "functioning" in 3(d).
- Some states felt that descriptions of characteristics in this paragraph, and in paragraph 4, could use more detail in how they are explained in the summary. Others felt that there has not yet been enough discussion about their meaning and/or relevance, such as 3(b), for example and that it may be too soon to determine that they are relevant.
- A delegation noted that some of the characteristics (i.e. predictability, "discriminacy," and reliability) may have a special relevance because if they are not present, the weapon in question would fail a review anyway.
- The role of mitigation measures in meeting concerns relating to some of these characteristics was raised by a delegation.

Paragraph 4(a)-(f): "Debatable characteristics"

- The characteristic of "intervenability" was discussed. One state felt it should not be in the "Debatable" category but moved into the "Relevant" category. Another state highlighted that this is not always a desirable or realistic characteristic given the purpose and functioning of certain existing weapons with autonomous functions.
- Some states raised questions about "lethality" as a characteristic, for reasons relating to whether or not this is a defining feature of a weapon.
 Others questioned if it should not be moved into



- the "Relevant" category or removed entirely from the summary.
- Overlap between some of the characteristics was noted, for example between "supervisability" and "intervenability".
- There was discussion about the characteristic of "current use" given that discussion about autonomous weapon systems has been framed as emerging, or in the future. Some states indicated more discussion and clarity is needed on this.
- A delegation raised the role of mitigation measures in addressing concerns relating to some of these characteristics.

Paragraph 5: "Irrelevant characteristics"

• Some cautioned to not pre-judge "autonomy in non-critical functions" by putting it in this category, including because there is not yet agreement on what critical functions are. It was also suggested to not have an irrelevant category.

General

- Some states would prefer if this summary also reflect points of convergence and divergence.
- Others called for better consistency between this, and all of the summaries, and the 2018 Possible Guiding Principles. One state warned of the potential to create divergence where in the past there has been convergence if past agreements are not kept in mind. It was noted that if an area of divergence reflects lack of a common definition, then this should be presented as a challenge but not cancel out progress made toward establishing working definitions or understandings.
- A question was asked about how the summaries fit into the broader GGE process, noting that if updates are released then some topics will benefit from having more time for discussion than
- A few states noted that technical characterisations are just a starting point and urged a more holistic approach.
- It was suggested to add new characteristics ("tasking") or concepts ("time and space").

Agenda item 5a: Potential challenges to IHL

• Some states cautioned against weakening the achievement of the agreed 10 Possible Guiding Principles from last year. They also noted that there seems to be more convergence than divergence, contrary to the representation of views in the informal summary.

• Some states suggested the addition of IHL prin-

- ciples of distinction, proportionality, and precaution to this paragraph. Others also supported the inclusion of the Marten's Clause.
- It was proposed to add "international law, including" before "international humanitarian law" in this paragraph.
- It was proposed to take out "possible lethal" before autonomous weapon systems as IHL continues to apply to all weapon systems. Furthermore, since lethal autonomous weapon systems are said not to exist yet, IHL cannot "continue" to apply to them.

Paragraph 3

- Some states expressed confusion about what stage of a weapon's life cycle human judgement is applied. Another state noted that it should be added that human judgement is important in all phases of the use of force.
- Like in paragraph 1, it was proposed to refer to "international law, including IHL" that fully apply to all weapon systems.
- Some states also expressed that the term "contextual knowledge" in this paragraph would need further clarification.

Paragraph 4

- Some states did not support the inclusion of international human rights law (IHRL) in this paragraph, arguing that IHRL applies largely in a peacetime context and asserting while AWS would operate in conflict situations.
- Some states noted that there seems to be convergence over the need for weapon systems with autonomous functions to always comply with IHL.
- Some states observed that the first part of the paragraph deals with the adequacy of IHL, and the second part with compliance concerns, and that it should therefore be divided into two separate points.
- Some states would like to see a strengthening of this paragraph and to replace how control "was achieved" with how control "could be" achieved.
- Some agreed that instead of delegations "explained" before "how control was achieved in practice across the targeting process," it should be replaced with "argued," followed by "how control would be achieved ...".

Paragraph 5

• Some states stressed that from a legal standpoint, international criminal law is relevant in terms of accountability, and that IHRL is also relevant in situations outside of armed conflict.



 Some states wished to add the Marten's Clause to the list of other legal regimes.

Paragraph 6

- Some asserted that smart algorithms cannot guarantee predictability and reliability and that humans always have to be in the loop of the whole targeting cycle.
- Some observed that this paragraph lacks balance, noting that algorithms that perform well in lab conditions will not have the same level of predictability on the battlefield.
- One state suggested replacing "discussed" with "argued," as the summary's content is not a factual statement but a reflection of discussions.

Paragraph 7

- Some observed that the first part could be moved to convergences, as it was argued that there were no objections that operational constraints can increase predictability.
- It was suggested to include the theme of potential "benefits" of autonomous weapons as this was raised by few delegations.

Paragraph 8

 States asserted that accountability always rests with the human and that further clarity is needed

- in defining individual commander and state responsibilities.
- It observed that the terms "responsibility" and "accountability" are used interchangeably, but are actually different concepts with different consequences. It was recommended to use "responsibility" consistently throughout.

Paragraph 9

 There was broad agreement on the importance of ethical considerations and it was suggested to move this under "points of convergence."

Paragraph 10

- States noted that there is no international guidance on weapon reviews and that there is a need for a common international standard.
- Many states asserted that there is convergence that legal weapon reviews are not sufficient to deal with the challenges posed by autonomous weapon systems.
- Other states reiterated that new law or regulations are needed to ensure an appropriate response to autonomous weapon systems.
- Many states reiterated the importance of legal weapon reviews in promoting IHL.





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