

VOL.9 NO.7

4 October 2021

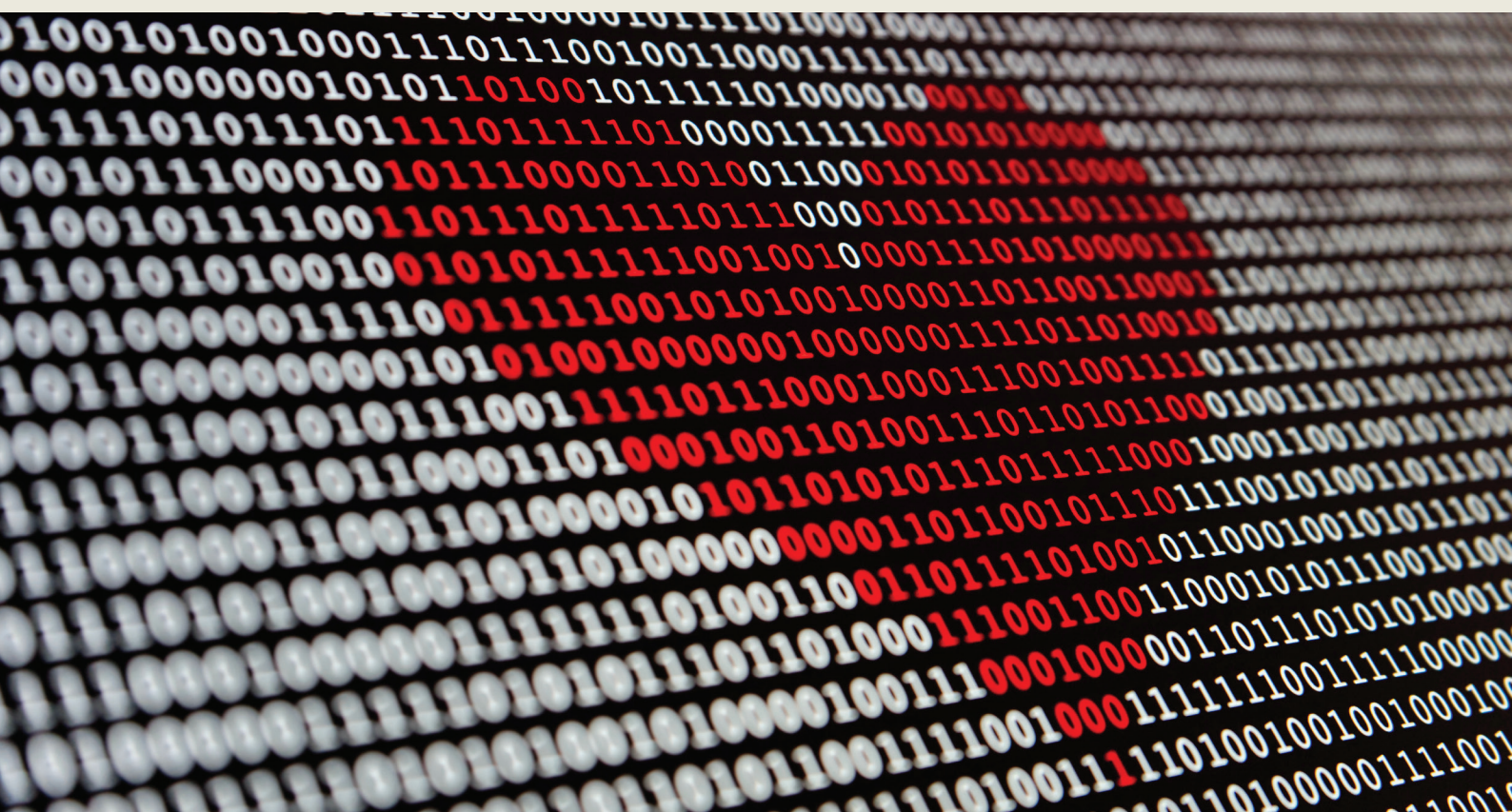


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EDITORIAL: BEYOND BALANCE AND BINARIES

Ray Acheson | Women's International League for Peace and Freedom

During the most recent installment of UN talks on autonomous weapon systems (AWS), it became increasingly difficult not to feel that the fate of our collective future is at stake in these discussions. Not just in relation to how governments ultimately decide to deal with AWS, but in a much larger sense. The conversations happening in this Group of Governmental Experts (GGE) provide important insights into the approach that militarised governments take not just to weapons, but to the world itself.

Orwell at the GGE: The claims of “weapons for peace” and “automation for protection”

As participants reviewed the [Chair's revised paper](#)—which contains what might be turned into recommendations that the GGE submits to the CCW Review Conference in December—an alarming pattern developed. A small number of states called for removing references to human rights and international human rights law; to human dignity; to ethical considerations; to algorithmic bias; to the word “obligations;” and to anything they perceived as a “new commitment”. They not only rejected anything they felt could constrain their development and use of AWS, but they also rejected the very idea that ethics, morality, rights, dignity, or bias have anything to do with programming machines to surveil, attack, and kill human beings.

The developers of AWS refuse to engage with these issues, rejecting out of hand the risks and challenges raised by those trying to prevent the automation of violence. When confronted with text in the Chair's paper about ethics or bias, for example, they assert that there hasn't been enough consideration of the issue so they can't accept language on it; and simultaneously argue that these issues are irrelevant and there's no point in continuing to have conversations about them.

After imposing this catch-22 to prevent sincere deliberation over the likely harms of AWS, they then proceed to go on at length about the imagined benefits of these weapons. Russia, for

example, argued that a high level of automation and use of algorithms in weapons will be “more reliable than spontaneous, uncontrolled actions of the human mind.” It rattled off a litany of ways in which machines will “improve” warfighting through increased accuracy and efficiency and lack of human emotion. Russia is not alone in purporting these benefits; Australia, India, Israel, Japan, Republic of Korea, Turkey, United Kingdom (UK), and United States (US) are also among those claiming the virtues of AWS.

Each of these states, which are already engaged in developing and in some cases using increasing autonomous technologies in weapon systems, also assert that any outcome of the GGE must “strike a balance” between “military necessity” and humanitarian concerns. The US even went so far as to argue that there may at times be a convergence of military and humanitarian interests, and that the GGE's outcome should reflect this. But as Ireland pointed out, with the support of several other delegations, there is no universal definition of military necessity. It encouraged the GGE to take guidance from the [Declaration of Saint Petersburg](#), which states that necessities of war should yield to requirements of humanity, and not that they should be balanced or that they can “converge”.

This idea that war and humanitarianism can converge is indicative of the mythologies within which the militarised states live. It's a worldview that says violence and war is good for humanity. Images of advertisements for these new tools of violence and oppression become clear when listening to their interventions. Killer Robots Will Save Lives! Automating Violence Will Make Us Safer!

As Cuba noted, the GGE is not a forum for the promotion of new weapons. It is meeting under the [Convention on Certain Conventional Weapons \(CCW\)](#), which has a mandate to prohibit and restrict weapons, not champion them. Likewise, as many delegations have reiterated throughout many GGE sessions, the CCW makes it clear that “the right of the parties to an armed conflict to choose methods

or means of warfare is not unlimited,” that it seeks to “continue the codification and progressive development of the rules of international law applicable in armed conflict,” and that one of its key objectives is to end the arms race and facilitate disarmament. This is the framework within which the GGE is meeting to develop recommendations for a normative and operational framework on AWS. This is not an arms fair.

The logics of oppression and power

The pro-AWS branding exercise seems to be more about overriding the concerns of others than it is an actual motivation for the development of these systems. That is, the arguments put forward by AWS developers are couched in terms of protecting civilians, minimising harm, and complying with international humanitarian law. But these are not the motivations behind the development of these technology. Fighting war faster; risking fewer human soldiers; sorting, tracking, and killing people more “efficiently”—these are real motivations behind AWS.

As noted in a [previous editorial](#), if states really wanted to save lives, they would invest in mitigating climate chaos, reducing poverty and inequality, fostering education, housing, and food security. They should be spending their money, time, and ingenuity on pretty much anything else other than weapons. Weapons do not save lives. Weapons are designed to take lives, to destroy infrastructure, to repress and control.

The dominant narrative of the militarised governments of the world is that weapons are for security. They have perpetuated this myth for so long that entire economies have been built around it, and international relations is governed by it. Yet human history has shown this to be false—in fact, the opposite of reality. One needs to look no further than the recent conflagration in Afghanistan to see where militarism and violence lead. And to pull back the curtain on the magical thinking about the benefits of AWS, one needs to look no further than the last two decades of drone warfare. Machine-based remote warfare has already led to thousands of civilian casualties, erroneous targeting, the rise of military operations outside of war, extrajudicial killings, psychological harm, destruction of schools,

hospitals, and markets, and so on. One also needs to look no further than the deployment of artificial intelligence (AI) and algorithmic technologies by police or immigration officials, which has already resulted in the wrongful identification, harassment, incarceration, or deportation of people.

“One cannot disentangle tech production and deployment from racial and carceral logics,” noted Dr. Matt Mahmoudi of Amnesty International.

In a [statement](#) to the GGE, he pointed out that component technologies that some AWS will depend on are already facing prohibitions, with the European Union banning remote biometrics and the UN High Commissioner for Human Rights speaking out against biometric mass surveillance. A growing number of delegations have already articulated their concerns with the perpetuation and amplification of social biases, such as gender and racial bias, through the development and use of AWS. As noted in a previous editorial, these harms are not abstract or theoretical—they are well documented and widely understood.

Yet, the AWS developers either reject that bias is a problem or assert there has been “insufficient study”. In reality, however, it’s more likely that bias is desired by those who want to develop AWS. As the UK explained, bias is part of the operational parameters that will need to be programed into an AWS. States want to be able to program bias into machines, it’s only “unintentional” bias that might raise a concern, the UK noted. The UK likely didn’t mean to suggest that it wants to program a machine to attack people of a certain race or sex (or at least, it probably didn’t mean to say it out loud). But that is precisely one of the concerns raised by AWS: that they will be capable of being programmed to [target](#) and attack people [based on](#) race, gender, age, ethnicity, disability, or other physical or social marker that has led to them being deemed a “threat” to a state.

Centring lived reality

Weaponising technologies with autonomous features will not bring security or save lives. But it will offer yet another tool of power and control. This reality is at the core of what needs contesting at this GGE and elsewhere, and many governments know it. “We are acutely aware of

our histories, often tainted by the bitter legacies of colonialism, the scars of war, and marked inter alia by a pattern of deployments and testing of experimental weapons technologies against our populations,” noted Palestine. “We cannot but extrapolate that, in all probability, the Global South is where autonomous weapons systems will be initially tested and used by the developers of these systems.”

This lived reality should be at the core of any work on AWS. Instead of building a future where machines fight wars and enforce “order” in societies, governments should be offering reparations for past harms and building structures of care and equality. They should be learning from history about what does and does not lead to peace and well-being. They should be engaging cooperatively to prevent conflict, not wage it more “efficiently”.

Disarmament is the best defence

Many delegations have noted throughout the GGE’s work that autonomy is a spectrum and binary characterisations of AWS are not helpful. This is not a question of fully versus partially autonomous, this is not about military necessity versus humanitarian concern. The work of this GGE is—should be—about safeguarding the future of humanity in all its complexity. Turning human beings into 1s and 0s in a line of code in a machine does not safeguard human lives, or rights, or dignity.

The binary approach to the world has led militarised countries into a narrative of “might is right,” “good guys and bad guys,” and “dominance or submission”. This binarism renders invisible all the other ways of living in the world, in all its complexities and nuances. It precludes collaboration and cooperation and it prevents peace and solidarity. Because of their military power, these countries feel they have the right to control the discussion and its outcomes. They try to block the creation of any agreements that do not suit their perceived interests, and deny the legitimacy or validity of any agreements produced without them. But these states are not the only ones that matter. They do not exist in a vacuum, merely compete with, constraining, or killing each

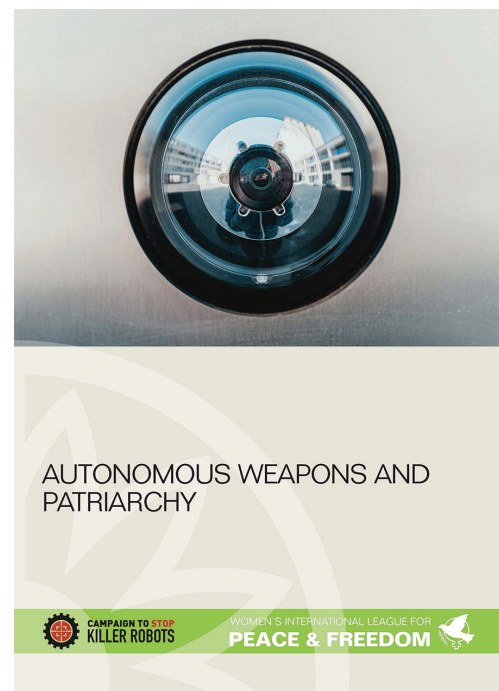
other. They exist in a much bigger world, in which other approaches exist.

“We are aware that our absence in these fora would lead to the framing of disarmament norms to reflect mainly the views of powerful highly-militarised States, often to the detriment of our priorities and efforts to protect our civilian populations and the most vulnerable from further harm,” noted Palestine. But countries of the global south “are not merely passive recipients of norms determined by other States but instead pride ourselves with being active norm-makers ourselves.”

Such norms have in the past included the prohibition of weapons that cause harm and suffering. And if the growing momentum in the GGE is any indication, these countries will lead the development of norms against AWS. As Panama said, while the militarised countries focus on building more sophisticated arsenals, the best defence is disarmament.

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SUMMARY OF THEMATIC DISCUSSIONS

Ray Acheson | Women's International League for Peace and Freedom

On Friday, 24 September and Monday, 27 September, participants of the Group of Government Experts (GGE) on autonomous weapon systems (AWS) sprinted through the various issues under agenda item 5 in the [programme of work](#). While the schedule provided time for discussion on each subitem separately, most delegations presented wide-ranging comments on multiple issues, from the revised Chair's paper, to agenda items 5a–e, to the GGE's next mandate. The following tries to capture the key points of these interventions.

Chair's paper

Many participants made overall comments on the [Chair's revised draft paper](#), which he circulated in advance of this meeting. The Chair said he hopes his paper can serve as the basis for discussions for shaping the GGE's recommendations to the CCW Review Conference (RevCon). The elements contained within the paper are intended to help the GGE explore possibilities for a normative and operational framework (NOF) without prejudging the format of the framework, noting that it could be a legally binding instrument (LBI), political declaration, or code of conduct. If discussions on this paper lead to consensus, the Chair suggested it be annexed to the report of the GGE as was done for the 11 guiding principles in 2019.

Brazil, Chile, and Mexico said jointly that the [first draft of the Chair's paper](#) was sufficiently balanced and has potential to lead to consensus recommendations, while the second draft goes back to previous discussions and further away from consensus. Pakistan made similar remarks.

Israel is "deeply disappointed" with the approach taken in the revised version of the Chair's paper, which it says moves further away from consensus and takes an unbalanced approach, siding with "controversial positions" of some states, straying from the mandate of the GGE, and deviating from agreed language. It argued that high contracting parties (HCPs) should not dedicate time to working on this paper as it has no status.

India said if this paper took us away from consensus it might not be possible to rebuild it over the next few days and suggested starting with what's agreed and putting everything else in a section for "areas of further work".

Japan said all versions of the Chair's paper are of great value and constitute a good basis for a NOF. It also recommended the Chair's paper reflect on future discussions of the GGE and identify subjects for the next cycle of discussions. The Chair clarified that the GGE's report will include a section on areas for further work that could form a mandate for next year. He encouraged participants to use this session to identify these areas.

The United States (US) said the Chair's paper is a vehicle to explore substance for consensus recommendations and asked how the Chair will approach issues where there is no consensus. It urged the Chair to use agreed language or explain why he deviated from it. It also urged the Chair include a separate section on international humanitarian law (IHL) in his paper and further articulate IHL requirements and principles; articulate limits imposed by IHL; clarify how existing international legal principles apply to human conduct and decisions; identify good practices to promote accountability in military operations in use of AWS and good practices in human-machine interaction (HMI); identify ways that autonomy in weapon systems (WS) can strengthen implementation of IHL; and develop guidelines and good practices for weapon reviews.

Cuba argued that it would be a "bit sterile" to simply refer to agreed language. Any recommendations should keep the guiding principles (GPs) in mind but their reiteration is not what the GGE is striving to achieve—the recommendations should be about what the GGE plans to do in the future. Cuba said the Chair's paper is a good foundation of work and an improvement on the first draft.

Algeria agreed the GPs are key to the work of the GGE but not an end in themselves.

Germany agreed it's not sufficient to just take stock of what the GGE did in previous years and said the Chair seems to be "on the right track to develop a centre of gravity that seems to attract more and more support." Germany urged states to compromise to develop a NOF needed to respond to challenges of AWS and guarantee conformity with IHL provisions.

Switzerland said the revised draft will help formulate a NOF and maybe additional GPs. It noted the paper contains some elements that can be included in the final report of the GGE and others that can help develop further common understandings.

The Campaign to Stop Killer Robots (CSKR) welcomed that the Chair's paper allowed delegations to recognise that an LBI is possible. It said there are encouraging elements in the revised paper including recognition that prohibitions and regulations are necessary but there are some crucial things missing, including a clear recognition that the majority have called for an LBI.

Sweden said the Chair's paper helps to promote "concurrence of opinions". Austria welcomed the paper and the Chair's clarification that its form will be discussed later. France said it is grateful for the paper and will go through it carefully.

The Republic of Korea (ROK) called for a report that contains consensus recommendations for a NOF. The International Committee of the Red Cross (ICRC) said the Chair's paper is a good basis to elaborate an effective framework to address concerns and risks posed by AWS.

Ethical considerations

A number of participants made overarching comments about ethical considerations (ECs) in relation to specific agenda items and the Chair's paper. Austria, Brazil, Chile, Ireland, Mexico, and New Zealand said ECs should be covered in a separate section of the Chair's paper.

Brazil, Chile, and Mexico, noting their [joint paper](#) with other states, said an ethical perspective should guide the work of the GGE on retaining human agency and intent in decisions to use

force, ensuring state responsibility and individual accountability, and upholding the principles of humanity and human dignity. They recommended the following be included in the Chair's paper:

- ECs, including the principles of humanity and dictates of public conscience, are essential to determine acceptability of and limits on AWS.
- Ethical concerns about AWS include consideration of compatibility with international law and moral acceptability.
- Human control (HC), agency, and intent are necessary in decisions about application of force; giving this to algorithms and computer-controlled processes poses fundamental ethical questions and concerns.
- Without meaningful human control (MHC), the development, deployment, and use of AWS that can delegate decisions on use of force to algorithms would undermine IHL and international human rights law (IHRL) and violate the principle of human dignity.
- ECs must be taken into account to determine type and degree of MHC over AWS and underpin the necessity of establishing limits on autonomy in weapon systems (WS) in elaborating positive and negative obligations with respect of development and use of such systems.
- ECs are also relevant to issues of human responsibility and accountability.
- Ethical and legal responsibility in relation to decisions to use force requires specific value judgements by humans and it is not legally feasible nor ethically desirable to delegate this requirement to AWS.
- To prevent the erosion of existing ethical standards, there must be a direct connection between human responsibility and accountability, human rationale, and direct consequences of use.
- From an ethical perspective, absence of HC could reduce threshold for decision to use force, amplifying prolonged conflict.

New Zealand reiterated a number of these points and called for their inclusion in any NOF.

Argentina, Costa Rica, Ecuador, El Salvador, Palestine, Panama, Peru, Philippines, Sierra Leone, and Uruguay highlighted jointly the loss of human dignity, agency, and moral values as three specific ECs. In response to the argument that ECs aren't legal requirements, they called on states to remember that proportionality and distinction in armed conflict were not required 200 years ago. They noted AI is data dependent and lacks ethical thinking.

Ireland said there are interconnections between law and ECs, especially regarding IHRL. Ireland highlighted the work of the ad hoc committee of the Council of Europe and UNESCO's work on ethics of AI, arguing that neglecting ECs in the GGE's work would ignore this history.

Austria said no matter how AWS are developed, legal, humanitarian, and ethical aspects won't change. The legal framework of IHL and IHRL will stay the same and states should focus on these rather than predictions or assumptions about possible benefits. Emerging technologies need a human-centric approach, and clear ethical and legal standards will help separate the legal from the unlawful.

Malta agreed ECs are central to the debate about AWS and highlighted the work of UN Special Rapporteur Christof Heynes. Malta noted that lack of human agency in specific decisions to kill and injure undermines human dignity by those making decisions and those targeted. It argued the principles of humanity and dictates of public conscience remain effective and relevant when addressing AWS and that limiting autonomy of WS would be an essential ethical element.

Russia argued it would be ridiculous to expect compliance of a machine with the Marten's Clause, which can be used to assess behaviour of people during military action, including in relation to their decisions about the use of WS.

ICRC said limits on AWS need to address ethical concerns, in particular loss of human agency, human dignity, and moral responsibility in life and death decisions. All AWS raise challenges for compliance with IHL as well as serious humanitarian risks and ethical concerns. ICRC

argued that ethical concerns are particularly acute with AWS designed or used to target persons directly.

The Future of Life Institute (FLI) said HC and promotion of human values are key foundations of AI ethics and highlighted the support of tech workers, roboticists, and scientists for prohibiting AWS. It cited a study by researchers at Cornell, Pennsylvania, and Oxford, which found that 74 per cent of tech workers are opposed to AWS, 42 per cent would resign from their current job if asked to work on AWS, and 25 per cent said they would speak out publicly if their organisation was involved in this.

India suggested that FLI's statistics about tech workers' support for a ban are "lies" or biased and argued the tech community does not have a monolithic position on AWS.

Bias

Argentina, Costa Rica, Ecuador, El Salvador, Palestine, Panama, Peru, Philippines, Sierra Leone, and Uruguay called jointly for a prohibition on anti-personnel AWS, arguing that by operating based on biometric and behavioral markers pre-programmed by developers, these systems may fail to distinguish between people who can and cannot be legally targeted, e.g. identification of body language of surrender requires complex understanding of cultural nuances, that would fail to be captured in biometric markers, and could only be understood by human experience and emotion. Developers would base designs on information available to them and their own experiences, which means it is highly likely that gender and racial biases arising from developers' specific cultural upbringing would be reflected in any pre-programmed systems.

Sweden said due regard should be given to how to mitigate possible biases and differentiated impacts, including on gender, that may result from deployment and use of AWS.

Austria raised concerns with algorithmic bias and said this is the technical discussion the GGE needs to have.

Japan noted discussions about gender and social bias in relation to using machine learning technologies in the civilian sphere. It suggested that discussions on AWS should clarify the nature of problems posed by such biases.

In response to Russia's presentation on AWS, in which it noted that the success of AI systems depends on the initial data used by the weapon developer, Austria asked how concerns about data bias are taken into consideration at the development stage. Russia said initial data will impact the way in which the whole system operates, so if it hasn't been given adequate initial data, it won't be able to resolve tasks in keeping with aims set out, but additional data can increase the accuracy of the system. Brazil, Chile, and Mexico noted that AI allows the machine to process large quantities of information, but the dark side is that it can increase unpredictability, escalate risks, and perpetuate biases.

The United Kingdom (UK) acknowledged that AWS can be susceptible to biases and said it is imperative to have the right balance in human-machine interaction (HMI) so as to avoid undesirable consequences; therefore, UK sees human-machine teaming, which recognises relative strengths and weaknesses, as key to military success.

New Zealand (NZ) raised concerns about automation bias, which reflects the risk that humans can be lulled into complacency to accept the recommendations of computer systems. This has caused accidents in aviation, medicine, and other spheres, where human users of AI technologies rely on the machine's recommendations, especially when in time-critical situations. When it comes to AWS, this could result in civilian casualties or accidents. NZ also warned this relates to accountability and argued that states have an ethical and moral obligation to ensure humans are not in positions where they are effectively fuses within an automatic system, scapegoats for when mistakes are made because of the nature of the system.

Brazil, Chile, and Mexico also raised the risk of automation bias and overreliance on the effectiveness of machines. They argued that

developing autonomy is full of risks and trial and error processes; it would be reckless to not seek a proper framework that recognises automation bias and that seeks to avert risks.

Potential challenges

Brazil, Chile, and Mexico said jointly the question isn't whether IHL is applicable, but whether it is sufficient to ensure MHC. AWS pose challenges to IHL. To overcome these, there is a need for cognitive participation in the critical functions that relate to the use of force, in particular by ensuring there are: adequate environmental limits in place; sufficient levels of situational awareness for approving any decision and determining operational context; reliability and predictability in identification, selection, and engagement of targets; ensuring that the WS isn't able to change mission parameters without human validation during conduct of operations; and allowing for constant human supervision and ensuring intervention where necessary.

Australia acknowledged the potential challenges to IHL and said to address this, states should ensure appropriate mechanisms to govern and direct military force. Systems of control should cover all WS across their lifecycle and should clarify how WS are to be used in compliance with IHL.

Argentina, Costa Rica, Ecuador, El Salvador, Palestine, Panama, Peru, Philippines, Sierra Leone, and Uruguay jointly warned that AWS pose the risk of creating a vacuum in accountability, which would undermine victims' right to remedy. They also raised concerns about lowering the threshold for the use of force by increasing the physical and psychological distance of human soldiers from specific time and places of attack. These countries further warned that the use of AWS could lead to an arms race, increase existing inequalities, exacerbate the erosion of international peace and security, and lead to proliferation to non-state armed groups.

Ireland said there seems to be convergence on challenges including unpredictability, complex context-based decision making, bias, and more. Context-specific, value-based judgements by human beings can't be replaced by machines.

Costa Rica agreed that WS that are unpredictable, unforeseeable, and unreliable are incompatible with international law, including IHL, IHRL, international criminal law (ICL), and cannot respect human dignity.

Sweden agreed predictability and reliability are key concerns and said military decision makers and operators need to fully understand the WS at their command, and need to have the ability, training, and skills to use them. Japan made similar comments.

In this regard, Sweden called for manuals, procedures of use, methods of training, and risk assessment and mitigation measures. It said the process of procurement, maintenance, and development of AWS should be controlled by elaborate safety procedures.

Russia argued that questions of reliability related to the use of AWS, including if damage were caused as a result of errors, could be the subject of a separate discussion and further developments.

Austria raised concerns about cognitive limitations, lack of common sense and judgement, epistemological limitations, and algorithmic bias as key challenges.

Cuba said AWS raise the risk that humans won't be held accountable for committing serious war crimes.

ICRC reiterated that IHL calls for evaluative value-based judgement and decisions by humans, based on understanding of context, including the circumstances of a particular attack. It warned that the process by which AWS function poses a challenge for persons carrying out attacks in making these judgements, because the AWS user doesn't choose the specific target and precise time and place when force application of an AWS is triggered.

Canada said key challenges include the context of operational environment, noting that the employment of systems in populated areas where there are many civilians can be different in air or sea environments. It also highlighted the challenge of preserving communication lines, the possibility

of recovery of damaged systems, the ability to foresee number and type of interactions with enemy, and to delimit the system in space and time.

The UK outlined four main challenges:

- The ability of the existing regulatory framework to sufficiently regulate new capabilities—the UK says it is sufficient, but suggested the GGE establish a multidisciplinary network of experts to work through ethical concerns;
- Ensuring that AWS support IHRL—the UK says the GGE should identify ways in which AWS can be used to reduce harm to civilians;
- Ensuring that the use of AWS does and cannot exempt state responsibility—the UK said the GGE should illustrate how accountability and responsibility can be applied to AWS;
- Ensuring that activities throughout the lifecycle of AWS can contribute to or detract from level of overall HC and compliance with IHL—which the UK says needs further exploration.

FLI said challenges include substantial proliferation risk, threatening international security, decreasing influence of states in their own borders, and unintentional risk of escalation of conflict.

The International Panel on the Regulation of Autonomous Weapons (iPRAW) argued machines don't have the same cognitive capacities as humans, especially not in dynamic combat operations, and said that applying multiple computation systems may result in many military failures and undesired outcomes.

Pakistan said AWS carry serious implications for regional and international military and security; give a perceived military advantage to states with AWS; increase the likelihood of their use, given the reduced loss of own people; lower threshold of war, as well as anonymous and clandestine killings; lead to costly arms races; use by non-state actors; and uncontrolled levels of escalation and spirals of reprisals. Pakistan argued that arms racing to gain a technical or strategic advantage could

lead to destabilising effects, as the implications of machines with increased intelligence are unknown and could be catastrophic.

Characteristics

Argentina, Costa Rica, Ecuador, El Salvador, Palestine, Panama, Peru, Philippines, Sierra Leone, and Uruguay said all AWS pose risks to compliance with IHL and should not be categorised into lethal and non-lethal. In response to the argument that there is nothing intrinsic that would make them prohibited, they said there is no way to control how an AWS will be used; the effects are an intrinsic feature and thus the systems must be prohibited.

Japan argued lethality is an important specification for AWS because the debate on these weapons emerged from an ethical value judgement about delegating life or death decisions to machines.

Brazil, Chile, and Mexico argued a precise definition isn't needed to start developing a NOF but suggested that if the GGE wants to define AWS, a technology-agnostic definition focusing on HC rather than specific units or platform would be most suitable. They support the ICRC's characterisation of AWS and outlined their understanding that AWS are WS that:

- Have autonomy, meaning it has level of independent decision-making capacity to operate without MHC in critical functions including human targeting;
- Use AI technologies to perform selecting and attacking including human targets and objects;
- Have limited or no HC in decision-making, meaning the WS operates partially or fully independently in critical functions of selecting and engaging targets.

Austria said states should do what they did best in the past by looking at boundaries: what weapons should not do instead of what they are.

France reiterated its distinction between fully and partially AWS. "FLAWS" are WS that cannot ensure that the effects of its use are known and controlled, which would contradict the GPs and military ethics. "PLAWS" would remain subject to human

command, wherein decision-making functions are defined by humans the WS cannot change area of operation.

Germany reinforced this approach, arguing the GGE shouldn't concentrate on reaching agreement on detailed definitions but focus on the two-tier approach to develop characterisation of fully and partially AWS.

Switzerland argued there is no need for a definition beyond something that includes all AWS where the critical functions of detection and attack are brought together, noting the degree of autonomy, and putting at heart the role of human operators. It supported the two-tier approach of prohibition and regulation.

US said there is no need for a definition of AWS before developing strong consensus recommendations but it remains concerned with the effort to distinguish between fully and partially AWS regarding prohibition and regulation, arguing there is nothing intrinsic in autonomy that would render a weapon categorically prohibited by IHL. The legality of WS is about how weapons are used, which should be evaluated on a case-by-case basis.

ROK agreed that "hasty conclusions" shouldn't be made about WS with certain characteristics being prohibited. It argued the difficulty of reaching a definition of autonomy is linked to our limited understanding of the technology itself, which is rapidly developing.

Russia said AWS aren't a distinct class or type of weapon and argued IHL is sufficient to regulate them, noting that states have the right to select methods and means of warfare in line with IHL principles. China noted the Chair's paper suggests autonomy be classified, definition of weapons be clarified, and control policies be identified. It argued that this is reasonable but for the time being, to classify WS as fully or partially autonomous is too general and should be further clarified.

UK said categories and definitions should flow from core concerns of IHL requirements, which could provide a clearer picture of what levels or uses of autonomy in WS would or would not be acceptable.

The Alan Turing Institute University of Oxford outlined its paper on definitions of AWS, which seeks to identify similarities, differences, and pro and cons of each. It proposed the following definition of AWS: “An artificial agent which, at the very minimum, is able to change its own internal states, to achieve the given goal or set of goals within its dynamic operating environment and without the direct intervention of another agent, and may be endowed with some functions to change its own operational rules without the intervention of another agent and which is deployed with the purpose of exerting kinetic force against a physical entity, whether an object or human being, and to this end, is able to identify, select and attack a target without the intervention of another agent. Once deployed it can be with or without some forms of HC, e.g. in, or out the loop.”

India called for a universal definition of AWS and said the categorisation attempted in the Chair’s paper is too simplistic.

Human element

US is concerned with the framing of HC reflected in the Chair’s paper, arguing HC may be one available means to achieve IHL compliance but is not an end or legal requirement in and of itself to ensure IHL compliance. US called for elaboration of good practice on HMI to strengthen compliance with IHL.

Argentina, Costa Rica, Ecuador, El Salvador, Palestine, Panama, Peru, Philippines, Sierra Leone, and Uruguay said jointly that humans are responsible for applying IHL and thus MHC is an essential condition to govern AWS, which must be applied throughout the lifecycle of a WS and to all its critical functions. They argued that humans must be in control of attacks and operations as a whole; and decisions must be limited to someone who can use judgement and be accountable, and who can distinguish between mission types, environments, and circumstances. They also said human operators should be able to cancel an attack that would cause indiscriminate and disproportionate effects on civilian, or widespread and long-term damage to the environment.

Brazil, Chile, and Mexico explained jointly that HC is separate from HMI—HMI is a type of human

involvement in a system, but does not provide a complete picture of HC for AWS. HC is relevant throughout system lifecycle of a WS, not just at the point of human interaction with it—rather, HC applies at pre- and post-deployment stages as well, including design and development, deployment in battlefield, and appraisal of outcomes. Essential HC elements include:

- Ability of human to intervene and abort operations;
- Ability of human to deactivate system;
- Human supervision of system that requires qual human judgement, not just simple approval of automated decision;
- Appraise info with reasonable amount of time before approving action;
- Actual human judgement throughout lifecycle;
- Human retention of decision on application of IHL principles;
- Ability of humans to understand and explain the system; and
- Attribution of responsibility at different stages throughout lifecycle.

Sweden said accountability can’t be transferred to machines and humans must at all times be responsible for use of force. The type and degree of MHC must be determined on a case-by-case basis taking into consideration a range of factors throughout the entire lifecycle of the WS.

Austria and Costa Rica said humans must retain MHC over WS.

iPRAW said a certain degree of HC is important to guarantee AWS are used in accordance with international law.

Malta subscribes to the ICRC’s position that meaningful or effective HC would be acceptable in so far as it would require a sufficiently close connection to be maintained between the human intent of the user and eventual consequences of operational specific effects. Malta argued that human agency is necessary for moral

responsibility and accountability for decisions to use force, noting this can't be transferred to WS.

Argentina, Costa Rica, Ecuador, El Salvador, Palestine, Panama, Peru, Philippines, Sierra Leone, and Uruguay said jointly it is important to guarantee accountability for the commission of war crimes, and called on states to learn from armed drones where accountability and responsibility don't exist mainly due to absence of specific international instrument regulating these systems.

Russia argued that it's clear that responsibility for the use of AWS is placed on the person on duty who sets tasks and gives order for use. However complicated or technically developed devices may be, Russia argued, they remain a product of human activity. This also applies to the programming code that determines how the system operates.

Russia also noted that specific forms and methods of control should remain of WS, which should be determined by the government. Effective HC over machines is possible not only through direct guidance, Russia argued, but also through limits to tasks, aims, lengths, and zones of use of AWS. It asserted that the determination of degree of HC is a value judgment and purely subjective and shouldn't fall under regulation because the concept of HC could become an instrument for narrow national interests. Rather than looking for a "gold standard" to ensure MHC over AWS, states should look at existing IHL in ensuring HC over machines and effective interaction between humans and machines.

Cuba noted that HC is already a standard through the Draft Articles on State Responsibility for Internationally Wrongful Acts and in other customary standards. Assigning responsibility to states is done through review of a states' actions or omissions.

In response to Russia's presentation, the CSKR said that the use of a video game to illustrate the potential evolution of AI to be effectively used in battle is an extremely dangerous comparison, which shows why MHC is so necessary. For the AI system in that game to have become as good as it is, it repeated the game 1000s of times to replicate human in terms of how battle is played. In the

game, the battlefield, features, and "enemies" are always the same; billions of people had to die in the game for AI to be as good as a human. That video is the exact reason why AWS shouldn't be allowed. "Humans are more than 0s and 1s."

Potential military applications

Japan argued that AI and machine learning have the potential to significantly reduce civilian harm by improving accuracy of attacks; strengthen compliance with IHL; assist in distinguishing between civilians and civilian objects by analysing vast amounts of data; result in better precautionary measures; improve accuracy of target identification and targeting compared to that of manual human operations.

US agreed autonomy in WS could strengthen implementation of IHL and that AWS could create humanitarian benefits like greater precision and reduction of civilian casualties.

Russia asserted that a high level of automation and use of machine algorithms is a more reliable than spontaneous, uncontrolled action of the human mind and thus helps to enhance compliance with IHL; it also argued AWS can lower negative consequences of use of weapons, reduce the possibility of unintentional strike, would be able to interact in various environments, and ensure due levels of accuracy and selectivity. Russia further asserted AWS will increase speed of decision-making and increase "accuracy" of strikes. Acknowledging that machines can make mistakes, Russia argued AI machines today are more accurate and effective and selective than human operators and face less risk of outside interference in their operations.

Russia also argued AWS will help save lives of combatants, arguing that physical proximity to the battlefield can lead to mistakes, leading to the death of civilians, and that psychological orientation of soldiers i.e. those that see civilian populations as a threat, leads to additional suffering by civilians.

France argued that partially AWS could help people with decision-making processes or in the conduct of certain actions, and in repetitive and dangerous

tasks. France argued PLAWS will provide benefits in terms of performance, accuracy, protection, permanency, and relevance and help operators fully abide by IHL.

Mines Action Canada (MAC) said the discussion at the GGE seems to underestimate the skills, knowledge, intelligence, training, experience, and morality that humans combine with situational awareness and IHL to make decisions during conflict. It argued machines cannot replicate complex decision-making process by a human, and has found strong support among military veterans for this position.

In response to Russia's presentation on AWS, France asked Russia if it would it seem useful or dangerous from a military viewpoint for a system to set its own criteria beyond the initial criteria for a mission set by humans, and to evolve beyond that framework. Russia said geographical or temporal limits could be placed on a WS by an operator, and said it is not aware of any cases in which the AI system could change a target during an operation. It said the weapon designer is responsible for building the system to follow the limits and criteria assigned to it.

Austria asked Russia how an AWS would evaluate questions of military advantage, which is essential for assessing proportionality. It pointed out that what might be a legitimate target at one point might not be an hour later. Austria also cautioned that this assessment could vary based on national data and rules of engagement. It also asked about the interaction of different AI-based systems in armed conflict and if this would have escalatory potential. Russia argued that as things change, one has to look at all targets, suggesting new targets may emerge as a result of the battle.

India said the questions being asked about AWS aren't asked about other WS, arguing that there is never 100 per cent predictability on the battlefield.

Argentina, Costa Rica, Ecuador, El Salvador, Palestine, Panama, Peru, Philippines, Sierra Leone, and Uruguay argued jointly that AWS will make war even more inhumane than it is already, pointing out it's not clear if AWS can distinguish between civilians and combats, especially in context of

asymmetric warfare. Russia retorted that any military use of AWS must be conducted in keeping with principles between military need and damage done.

Brazil, Chile, and Mexico said jointly that centrality of HC should be bundled with this topic on military applications, because otherwise this agenda item helps circumscribe the exact areas of concern. They also argued discussion of military applications should be carried out in so far as is relevant in assessing the need for possible regulations. The main concern of states shouldn't be to promote increasing functionality and evolving efficiency, but to focus on how to prevent systemic violations of IHL, be it by misuse, malfunction, and more probably by lack of adequate HC of the use of such weapons.

Pakistan reiterated the challenges it sees with AWS and argued that a discussion about perceived benefits would go against the objective of CCW, including to contribute to international détente, end the arms race, and work towards general and complete disarmament.

ROK argued that development of autonomous technology shouldn't be restricted on the rationale that such technology could be used for WS, asserting that there are benefits of autonomy in military functions, including complementing human judgement and activities in non-lethal areas, such as surveillance and detection of explosive devices. ROK also argued autonomy in WS can reduce human error and enhance accuracy of targeting, reducing civilian casualties and damages. UK said military success isn't only dependent on military advances, but how it can augment human capabilities.

France pointed out that this risk-benefit analysis is repetitive of previous discussions and said it has carried this analysis out nationally and urged other states to review its findings.

Cuba said France's remarks caused it to reflect that this is not the forum to talk about benefits of technology but whether certain weapons should be prohibited. Talking about benefits of AI for chess or medicine isn't relevant to this question.

Possible options

A number of participants outlined their preferences for how to address the challenges of AWS. Some argued that IHL is sufficient, but others argued additional rules are needed:

US said existing IHL is sufficient but also says IHL does not have a specific requirement that WS be under HC. It suggested, rather than focusing on HC as stand-alone achievement, the GGE should focus on what IHL requires, and then explore good practices.

Ireland said AWS that can't comply with IHL are unacceptable and should never be developed and deployed; it is open to how this is achieved.

Sweden agreed that any weapon that can't comply with international law is unlawful. Canada agreed the inherent illegality of weapon systems that can't be used in IHL is quite evident.

Pakistan noted that saying IHL applies is not enough, and that there is a need to clarify how it applies.

Brazil, Chile, and Mexico argued jointly that existing IHL does not make explicit that there must be human supervision or control over WS, or include concepts such as HC or HMI; therefore, it is clearly inadequate for the law to simply take into account autonomous technologies.

Austria called for the development of specific international legal norms on AWS because interpretations of IHL are diverging and states must remove ambiguities by setting limits.

Cuba argued that if IHL was sufficient, states should draft a clear principle stating that according to IHL, there is a permanent prohibition on using any WS that decides on a target and use of force without human intervention.

Some participants proposed specific measures for ensuring compliance with IHL and other relevant international law:

Argentina, Costa Rica, Ecuador, El Salvador, Palestine, Panama, Peru, Philippines, Sierra Leone,

and Uruguay called jointly for a LBI in the form of a CCW protocol. They said that fully AWS; AWS lacking sufficient predictability, foreseeability, reliability, oversight, and explainability; and anti-personnel AWS, must be prohibited. Austria, CSKR, and FLI also oppose targeting of humans with AWS.

Brazil, Chile, and Mexico called jointly for the prohibition of WS that make life or death decisions; can't be directed at specific military objects, cause superfluous or unnecessary suffering, or have effects that can't be limited by IHL; can't be controlled by humans; where it's not possible to attribute responsibility through WS lifecycle; and where it's not possible for humans to understand or explain what a system is doing and why.

ICRC said all AWS raise humanitarian, legal, and ethical concerns and should be subject to international limits, which should take the form of international requirements and constraints. All AWS that pose unacceptable humanitarian risks or are morally unacceptable should be effectively ruled out and explicitly prohibited. To uphold respect for IHL, it's critical that limits are placed on development and the use of AWS so that users may be reasonably certain that any and all attacks carried out by an AWS will comply with IHL. The ICRC recommends that design and use should be regulated, including in relation to limits, targets, duration of geographical scope, scale and situations of use, and requirements for HMI interaction. AWS that are designed or used in a manner such that their effects can't be sufficiently understood, or predicted should be prohibited. AWS designed or used to target persons directly, as opposed to objects, should also be prohibited.

France and Germany said fully AWS should be prohibited and partially AWS should be regulated. Austria and Switzerland are encouraged by the growing understanding around a "two-tier" framework structure with regulations and prohibitions.

CSKR supported an instrument with prohibitions and regulations. MAC called for a ban on WS that aren't under MHC. Cuba called for the development of legally binding norms. Algeria called for a binding legal framework for the implementation of the GPs.

Some delegations argued against these specific measures:

India argued there are other ways to implement the GPs than through a legal framework, such as a non-legally binding programme of action, as on small arms and light weapons.

India also opposed the development of an LBI and argued that the Chemical Weapons Convention and Comprehensive Nuclear-Test-Ban Treaty “took a long time to mature”.

Russia argued against a prohibition on AWS, arguing it could damage the legitimate interests of states, harm civilians, and negatively impact technological development. It asserted that new treaty limitations would require clear evidence that consequences of use would be destructive and serious and that in no conditions could they meet principles of IHL.

US is concerned with efforts to create new standards for WS, arguing this would be unfeasible or undesirable and saying it doesn’t want to create new standards for routine and existing weapons that many states have been using for years.

Some states suggested alternative or additional measures:

Australia, Japan, Russia, and Sweden called on states to conduct weapon reviews on AWS.

UK said states should share and establish good practices on development and use of AWS.

Russia said it “doesn’t object” to exchange of best practices for ensuring HC over WS, but said this should be on a voluntary basis and designed to ensure that all types of practices are considered as models for possible legal regulations on the national level.

Some participants outlined possible items for further discussion at a future GGE:

Japan and US called for further discussion on measures to ensure compliance with IHL. US supports continued work of GGE and exchange of good practices on weapons reviews (WRs).

China supports considering definitions and technical characteristics as the focus of future discussions so as to lay a foundation for a LBI.

Russia called for further discussion on data selection and use of algorithmic programming in regard to AWS, as well as briefings by military experts on potential characteristics of AWS-relevant technologies, including self-adaptation, predictability, clarification, reliability, ability to be interfered with, ability to be redefined or to change the task or target or in other ways adapt to existing conditions, and to carry out their own activities.

A few delegations noted their expectations for the next GGE mandate:

Sweden would like to see an extension of the GGE to continue its important work leading to international consensus on AWS. Russia said the GGE should continue within the CCW on the basis of a discussion mandate and agreed agenda.

Cuba called for a strengthened mandate to work on developing an LBI or at least come up with a compendium of applicable international law. India said the second suggestion “deserves sincere consideration”. Portugal also supported this.

Argentina, Costa Rica, Ecuador, El Salvador, Palestine, Panama, Peru, Philippines, Sierra Leone, Uruguay, CSKR, FLI, and MAC called for a negotiating mandate.

Algeria hopes for a renewed mandate to shift from exchanging ideas to developing rules.

India said it is not willing to consider the subject of AWS outside of the CCW. Pakistan said the CCW remains appropriate forum for addressing AWS but is not the only appropriate forum.

ORGANISATION OF WORK

Katrin Geyer | Women's International League for Peace and Freedom

The most recent Group of Governmental Experts (GGE) session on autonomous weapon systems (AWS) saw discussions around the thematic agenda items on various aspects of AWS; the format, status, and style of the [Chair's revised paper](#) (CP); how to include and advance from consensual language; and an outline of next steps.

After this session, the GGE will have five days remaining days and will meet from 2–3 and 6–8 December 2021 before the Convention on Certain Conventional Weapons (CCW) Review Conference (RevCon) from 13 to 17 December 2021.

At the outset of the session, the Chair recalled that the [agenda](#), adopted at the August GGE session, covers all three official sessions in 2021 so there was no need to re-adopt it.

The Chair further explained that building on the success of the first round of written contributions in June, he sent a letter 23 August inviting delegations to submit further contributions by 10 September in an open-ended format. The Chair expressed his gratefulness for the many outstanding and substantive submissions.

Apart from some technical difficulties on 27 September, the session was broadcast live on UNWebTV in all six UN languages. An audio recording of all official sessions was also made available at the [UN Digital Recordings Portal](#).

Delegates sped through agenda items 5a-e, and started discussing agenda item 6 of the agenda ahead of schedule. Chile observed that delegates "fast forwarded," noting that while states have expressed their views in the past, it was useful to summarise key messages or listen carefully to other delegations' views. However, most states appeared to be keen to discuss the CP.

At the end of the meeting, the Chair announced that his team will go through all proposals discussed and work on a draft report. He and his team will seek to incorporate the recommendations on the normative and operational framework (NOF) in the

GGE report, based on the elements discussed in the CP. The report will likely be much shorter than the CP but will reflect progress made and consensus reached on some issues. He explained that he'll seek to produce the report sufficiently ahead of the December session but could not commit to a precise date. The December session will focus entirely on the adoption of the report.

Timelines

Republic of Korea (ROK) said it was thankful that the CP was circulated several days before the meeting so that delegations had a chance to review and discuss within their delegations. Turkey expressed concern that there might be too little time to prepare the draft report for the RevCon. Japan was concerned that the CP doesn't include any perspective for future discussions, and that there are only six days in December left for this. China, the US, and others reiterated the need for adequate time to review the draft report before the third GGE session in December. Argentina warned the debate on the next GGE's mandate isn't being given enough time, and that states will arrive at the RevCon without agreement.

The Chair clarified that this session can be used to identify areas for further work, and that these areas will be included in the report for the RevCon.

Purpose of the Chair's revised paper

The Chair informed that the CP is to be discussed under agenda item 6. He expressed his hope that the CP serves as a basis for discussion to shape the GGE's recommendation for the RevCon, and noted, as the title indicates, that the paper outlines "possible consensus recommendations in relation to the clarification, consideration and development of aspects of the normative and operational framework on emerging technologies in the area of lethal autonomous weapons systems."

The Chair explained that the elements in the CP can help explore what the normative and operational framework should comprise without prejudging the

format of the framework. Further, if the discussion of the paper leads to a consensus text, it could become an annex to the report of the GGE, as was done for the 11 guiding principles (GPs) in 2019.

Despite the Chair's explanations, there continued to exist confusion about the purpose and status of the CP, with some questioning if it was a draft text of the NOF or the draft report.

Cuba said it was dangerous to have a document with a whole set of ideas "without understanding where we're going."

India, Philippines, and United States (US) reiterated that the CP is not a draft of the NOF.

Philippines specified that the CP is a "vehicle that would take us through the journey" towards a NOF, and that through discussions, delegations expressed views how that journey should be characterised.

US stressed that the CP offers an opportunity to work through difficult substantive issues, and to work through it and assess where differences are. It noted that it was important to have achieved understanding on the text so that it can inform other aspects of the report.

Philippines registered concern about the Chair's explanation of the purpose of Section 6, seeking to operationalise the preceding sections. Philippines stressed that the CP was not a prescriptive document, which would be a deviation of its understanding of the CP's status. It underscored that the CP identifies elements of consensus but that it doesn't see it as a compendium of elements that should be undertaken nationally.

Views on drafting

Russia warned against going through the document paragraph by paragraph as there was no need to start drafting work on this document but to rather identify main elements that should form the basis of the draft report.

India was unclear about the process, and noted that comments on the CP's appeared like a drafting exercise.

Brazil, Chile, and Mexico also expressed a word of caution about comments on the CP looking like a drafting exercise.

Austria stressed that focusing on concrete language is the right approach, and that this procedure is consistent with the GGE's mandate.

The Chair clarified that the intention was not to draft text but to collect comments.

Links between the CP and the draft report

ROK said there were open questions how this paper will be incorporated into the final 2021 GGE report.

US stressed that the Chair should be as clear as possible of his vision for the overall approach for the report, otherwise it will be difficult to achieve results. In past years, the GGE agreed on substantive conclusions on different agenda items, which required significant time to achieve consensus. US wondered if there will be a similar process this year, or if the CP was the only vehicle to achieve recommendations on a NOF. The US also wondered how the Chair approaches topics that do not enjoy consensus.

Cuba was unclear about if the CP was part of the conclusion of the draft report, or, since the first section of the CP is called "Introduction" if this is supposed to be the introduction of the final draft report, in which case important elements are missing. The Chair clarified that the CP isn't the draft report, and that the introduction of the CP relates to recommendations, not the introduction of the report.

Ireland said that the greatest value of the CP is to work towards concrete language that can be used in the final report, and that the Chair has many options to include this such as an annex or integrating it into the report.

Russia stressed that the headings of the CP should only be considered as guiding the work, but should not be transposed into the final draft report.

Russia clarified that it does not want to pre-judge which section or part of the CP will be possible

elements for a future report. Russia said it wasn't clear whether all sections of the CP would find themselves in the draft report's section on recommendations or conclusions.

Cuba and India expressed concern about the manner in which the document is drafted. Cuba said it could not identify a set of conclusions or recommendations for the RevCon.

Australia said it had ongoing questions about how the language in the CP will appear in the draft report, making Australia's engagement in some sections of the paper challenging.

US also said it was concerned about the idea to debate formulations of something that will go into the chair's summary, which will ultimately have no status.

India stressed that it could not endorse the CP's as annex to the final report.

Consensus vs. new language

Similar to the August meeting, a few states discussed how to balance sticking to agreed language vs. progressing with new language.

US called on the Chair to indicate where he has deviated from previously agreed language so that states can discuss the changes, and see whether consensus can be achieved.

India also said that the GGE should start with existing consensus language, and to build on that in the future. It further suggested that issues that do not enjoy consensus could be included in a different section in the final report, under the heading of "areas for further work".

Japan also said that each version of the CP includes new elements and new language, and said that this created confusion about how the development of each paragraph can be traced.

US said that for the GGE to be efficient as possible, it should use language that it has already agreed upon. It noted that the GGE has made important progress that shouldn't be lost changed in the next report.

US cautioned against changing consensus language, and said that it was important to engage constructively in exploring where the GGE can find further consensus but that it is equally important to recognise that there are formulations achieved in the past that were carefully negotiated compromises.

Philippines said that there shouldn't be a balance for the sake of balance but to have an outcome-oriented process.

Ireland cautioned against the propensity in parts of the text to recast certain elements of international humanitarian law (IHL), and said that it must be very clear that IHL is not up for renegotiation. Austria and Netherlands aligned with this. Russia also agreed and said that there was no need to rewrite consensus-based text from the GPs approved in 2019.

Ireland said that the text of the CP captures much of what has been agreed but that new language on crucial elements is the only way to move forward. Pakistan and Austria echoed this.

Peru stressed that CCW preamble considers that the work of developing and codifying IHL is ongoing, and that the CCW is tasked to continue codification, which means going beyond agreed language.



SECTION 0: INTRODUCTION

Katrin Geyer | Women's International League for Peace and Freedom

Section 0 of the [Chair's revised draft paper](#) situates the work of the Group of Governmental Experts (GGE) within the framework of the Convention of Certain Conventional Weapons (CCW). It also recalls past work by the GGE, and addresses risks and alleged benefits of emerging technology in the area of autonomous weapon systems (AWS), as well as the need to include ethical considerations in the normative and operational framework (NOF). The following provides an overview of interventions and positions on section 0.

Overarching comments on section 0

The United States (US) welcomed the efforts by the Chair to try to ensure that formulations used in the past, including the Guiding Principles (GPs), has been included, and where language is different, that the Chair has made efforts to reconcile the language. US said the GPs could be included verbatim and without changes.

Chile, Brazil, and Mexico would prefer an introduction that reflects the history of the process, and said they were wary that the current draft lets form prejudice function.

US wondered if it is more efficient to work on substance and then come back to the introduction and tailor it based on what is agreed. Austria, Bulgaria, and India supported this. Austria added that it is important to include content from the introduction in the final report.

US said that in some areas, there is more substance than what is contained in the substantive sections of the Chair's paper (CP), which might necessitate moving things around.

Chile, Brazil, and Mexico jointly argued that fundamental ideas in the Introduction will lose their relevance without appropriate context in one of the substantive sections. For example, the role of ethics in paragraph 7 seems like an afterthought, but should be given its own section. Ireland and

Austria also reiterated their call for a separate section on ethics.

Sri Lanka would like to see a reference to human control (HC) in this section, as it's at the core of the debate. Austria made similar observations. Canada said it preferred the term "appropriate human involvement" instead, to accurately reflect what is needed to ensure IHL compliance.

Argentina was concerned that the introduction does not refer to risks related to the use of AWS, including social prejudices, and urged to retain the paragraph from the previous CP.

Argentina, Costa Rica, Ecuador, El Salvador, Palestine, Panama, Peru, Philippines, Sierra Leone, and Uruguay jointly requested deletion of "lethal" in all paragraphs.

Palestine called for the addition of a new paragraph: "Recall that populations of the Global South have historically been disproportionately affected and harmed by the emergence of new technologies in weapons systems."

Balance of risks and alleged benefits of AWS

A number of delegations made specific remarks about the imbalance between the paper's consideration of risks and alleged benefits of AWS.

Algeria, Cuba, and Philippines noted that paragraphs 4 and 5 should strike a proper balance between the risks and the alleged benefits of AWS.

Brazil, Chile, and Mexico jointly reiterated that the discussion about benefits and risks has been presented as a false dichotomy. They said that the risks are undeniable and have been exposed in the GGE and in many other international processes and fora.

Similarly, Algeria argued that paragraph 4 needs to be reviewed so as to reflect the seriousness of the risks.

Ireland noted that while the risks aren't elaborated in paragraph 4, the benefits are discussed in detail in paragraph 5.

Cuba was concerned that words such as "danger" or "threat" weren't used in relation to AWS. The language used is neutral to express a concern that something bad may happen whereas paragraph 5 has a positive feel about it.

Palestine argued that even if benefits do exist, they are outweighed by risks, and therefore all alleged enumeration of benefits should be deleted. Venezuela echoed this. The Campaign to Stop Killer Robots noted that the introduction has a long section describing imagined benefits of technologies whilst saying little about the actual challenges autonomous weapons systems raise. It urged for a focus on how to overcome the dangers of using autonomy in weapon systems.

Bulgaria said that more discussion is necessary to achieve a balance between risks and challenges and potential benefits AWS.

Canada said that benefits of emerging technology should be included or captured in the document, and that one shouldn't stigmatise emerging technologies. It stressed the need to cover aspects of technology allowing for better conformity with international humanitarian law (IHL) while analysing potential risks.

ROK said that paragraphs 4 and 5 should recognise that divergent views of perspectives exist.

France suggested to keep both paras to the minimum, as otherwise the GGE won't ever agree on the full list of risks and benefits.

Title

Philippines requested clarification on the change of the title of this section, from "General considerations" to "introduction," as it feels the former is more accurate. Pakistan also preferred the previous title.

Algeria said that deletion of the title "general commitments" must be compensated by referring to possible commitments in all sections of the CP.

Paragraph 1

Current text: *Recall the objectives and purposes of the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects (hereinafter "the Convention").*

No comments were made under this paragraph.

Paragraph 2

Current text: *Recognize the Convention as an appropriate framework for consideration of emerging technologies in the area of lethal autonomous weapons systems, including the need to clarify, consider and develop aspects of the normative and operational framework.*

Argentina, Bulgaria, Israel, Switzerland, and Venezuela welcomed this paragraph.

Israel and Russia requested to use the exact language from GP(k), on which this paragraph is based. It reads: "The CCW offers an appropriate framework for dealing with the issue of emerging technologies in the area of lethal autonomous weapons systems within the context of the objectives and purposes of the Convention, which seeks to strike a balance between military necessity and humanitarian considerations." The US supported this.

Australia proposed to delete "need to" and change it to "...including the clarification, consideration, and development of aspects of the NOF."

Austria suggested to bring the wording in line with the GPs, and to add, after "systems": "within context of objectives and purposes of the Convention". Pakistan supported this.

US suggested instead of "for consideration," using "addressing" or "dealing with" "emerging technologies..."

Argentina, Costa Rica, Ecuador, El Salvador, Palestine, Panama, Peru, Philippines, Sierra Leone, and Uruguay jointly supported the second part of the sentence as is, as the wording is in line with the GGE's mandate.

Paragraph 3

Current text: *Recall the guiding principles, the work on the legal, technological and military aspects and the conclusions of the Group of Governmental Experts related to emerging technologies in the area of lethal autonomous weapons systems, as reflected in its reports of 2017, 2018 and 2019, which were the basis for the clarification, consideration and development of aspects of the normative and operational framework on emerging technologies in the area of lethal autonomous weapons systems.*

Israel suggested to replace “which were” to “which form the basis,” as the 11 GPs are still pertinent to the GGE’s work.

Bulgaria welcomed the reference to the GPs as they are an achievement of the GGE.

Australia said the language could be tweaked so not to suggest there is consensus on the need for a new NOF.

Australia suggested to change “which were the basis for the clarification” to “which are the possible basis of clarification...”

US welcomed this but recommended including an element referring to the need for consensus recommendations, in line with the mandate.

Philippines would like to see reflected that the GPs may be further elaborated and developed, by adding “which may be further developed and elaborated” after “guiding principles”. Ireland supported this. Algeria, Ecuador, and Pakistan echoed these observations.

Ireland said it was concerned that the para reads that past work reflects “a” basis, and not “the” basis for deliberations of a NOF. The current language isn’t based on the mandate, and it argued that the GGE cannot operate in a vacuum, and that past documents aren’t the sole source of influence on this framework. Algeria, Ecuador, New Zealand, and Pakistan expressed support for these comments.

In support of Ireland, Brazil, Chile, and Mexico jointly argued that the GGE’s rich expertise can’t

be subsumed to GPs and past reports as the only basis for fulfilling its mandate. This conveys the sense that no further work is needed. They said they were certain that accumulated knowledge ensures that there is sufficient dedication to agree on a negotiation mandate, with the understanding that there needs to be further refinement and cross-fertilisation with other fora.

Ireland added that the paragraph is phrased in past tense, which implies a finality and could imply that this paper is the end point. It called for changing “were” to “is”. Ecuador made the same proposal.

India said this paragraph could be replaced by the language of paragraph 26e of the 2019 GGE report to address Ireland’s and others’ concerns. It reads: “The Group is to consider: (i) the guiding principles, which it may further develop and elaborate; (ii) the work on the legal, technological and military aspects; (iii) the conclusions of the Group, as reflected in its reports of 2017, 2018 and 2019.”

Paragraph 4

Current text: *Recognize the risks and challenges posed by emerging technologies in the area of lethal autonomous weapons systems, including in ensuring respect in all circumstances for the rules and principles of international law, including international humanitarian law and international human rights law, as well as for ethical considerations and in the maintenance of international peace and security.*

Argentina and Venezuela said this language could be further strengthened. Algeria said that this paragraph was extremely important, reflecting the grave challenges posed by emerging technologies in the area of LAWS.

Switzerland welcomed reference to international peace and security.

Argentina, Austria, Palestine, and Philippines, amongst others, welcomed the reference to international human rights law (IHRL).

Palestine explained that IHRL applies in the context of armed conflict as confirmed by international jurisprudence, including by the International Court of Justice, and all human rights treaty bodies.

Israel argued that the reference to IHRL should be removed as there is no consensus on the inclusion or relevance of IHRL. Australia also requested deletion of IHRL as IHL is the most relevant legal framework. India, Japan, and Republic of Korea (ROK) made similar remarks. Australia argued that the applicability of international law, encompassing IHRL, is reflected in section 3.

Israel suggested deletion of “ethical considerations” as it is mentioned later on in a dedicated paragraph. Australia made similar remarks. India and ROK also would like to see reference to ethics deleted.

US noted that references in this paragraph, including to IHRL and ethical considerations, were discussed at great length, and shouldn’t be reopened. It proposed to orient language along the GPs. It suggested to change the language, after “systems” to the following, in line with the preamble of the GPs: “to international law, in particular the United Nations Charter and International Humanitarian Law (IHL) as well as relevant ethical perspectives.” India supported this.

Israel proposed to drop “risks” but maintain “challenges”.

US said that the language should adhere more closely to the language of the agenda, and to remove “risks and”.

Australia, India, and ROK would like to add “potential” before challenges. Australia argued that the implication needs to be avoided that there is consensus that IHL is insufficient. Ecuador opposed this. It said that if the GGE still has doubts about risks and challenges, it wouldn’t make sense after eight years of work.

Argentina, Cuba, Palestine, and Philippines called for inclusion of international criminal law (ICL). Palestine explained that the use of AWS can lead to grave breaches of IHL, and that ICL is therefore a highly relevant framework, also for upholding responsibility and accountability.

Palestine suggested to include “serious and well-documented” before “risks and challenges”. Argentina supported this.

Austria said it is beneficial to recall some specific risks. It suggested, as clarification, to add some of the risks, such as algorithmic bias, including gender and racial bias, as well as agreed risks in and those risks reflected in GP(f), as well as language in paragraph 25e of the 2019 GGE report. GP(f) reads: “When developing or acquiring new weapons systems based on emerging technologies in the area of lethal autonomous weapons systems, physical security, appropriate non-physical safeguards (including cyber-security against hacking or data spoofing), the risk of acquisition by terrorist groups and the risk of proliferation should be considered”. Paragraph 25e reads: “...harm to civilians and combatants in armed conflict in contravention of IHL obligations, exacerbation of regional and international security dilemmas through arms races and the lowering of the threshold for the use of force. Proliferation, acquisition and use by terrorists, vulnerability of such systems to hacking and interference, and the possible undermining of confidence in the civilian uses of related technologies were also raised.”

Algeria, Ireland, Peru, and the Philippines supported this. New Zealand and Venezuela also called for inclusion of the risk of bias in this paragraph.

Brazil, Chile, and Mexico jointly said that the risk of algorithmic bias has been turned on its head, and is now being presented in a way that it can be readily identified and prevented, omitting the fact that this is a structural issue. Peru echoed these observations.

Venezuela said that the recognition of some potential military advantages does not exclude the potential for disproportionate and indiscriminate use of such weapons since the software and programming can go wrong – violating the principle of distinction. It argued that it cannot be fully assured that these weapons would not be used to single out a certain group of people based on race, amongst other risks. Palestine urged for inclusion of 4bis to refer to algorithm bias.

Switzerland supported that the outline of risks is broad, and welcomed that some parts were moved to other sections, to keep this one generic.

Philippines would like to see “lethal” deleted.

India would like to see the second half of the sentence deleted.

Russia proposed the following paragraph instead: “Note potential challenges posed by LAWS, as by any weapon system, to IHL.” It argued that in this way, the language will be in line with the chapeau of the GPs.

France suggested to reverse the order of paragraphs 4 and 5, to reflect the distinction of two types of weapon systems, between fully lethal AWS (FLAWS) and partially lethal AWS (PLAWS).

Paragraph 5

Current text: *Recognize also the potential for emerging technologies in the area of lethal autonomous weapons systems to be used in upholding compliance with international humanitarian law and other applicable international legal obligations, including by, inter alia, incorporating autonomous self-destruct, self-deactivation, or self-neutralization mechanisms into munitions and weapon systems; increasing awareness of civilians and civilian objects on the battlefield; improving assessments of the likely effects of military operations; increasing the speed.*

Algeria said this paragraph should be shortened.

Argentina expressed concern about the assertion that AWS can enhance compliance with IHL.

Sri Lanka argued that this paragraph gives the inaccurate impression that AWS contribute positively to IHL. The measures such as self-destruction do not give a solution to the problem.

Cuba would like to see deletion of this paragraph. It argued that the paragraph doesn’t make sense in the context of the CCW’s mandate, which is about disarmament.

Cuba said that it does not consider the improvement of precision, speed, and accuracy as something that is potentially positive, as it does not contribute to disarmament. Venezuela supported this. Peru made similar observations.

Ireland asserted that the reference to “lethality” in this paragraph shows the absurdity of using this term, as in no way can “lethality” bring potential benefits to uphold IHL. Philippines supported deletion of “lethal” in this paragraph.

Philippines would like to add elements that would state benefits arise only if weapon systems (WS) are applied within the threshold of meaningful human control (MHC), and that risks and challenges outweigh potential benefits. Ecuador agreed.

Brazil, Chile, and Mexico jointly stressed that MHC is needed to avoid the materialisation of the risks, especially with respect to civilian harm.

Palestine argued that even if benefits do exist, they are outweighed by risks, and therefore all alleged enumeration of benefits should be deleted. Venezuela echoed this.

Cuba challenged the idea that AWS can contribute to compliance with law, since it is a state and persons that uphold law. Argentina echoed this, and wished to see this reflected in the text.

Israel prefers paragraph 5 from the previous version, and said that this list is too varied but that the part referring to GP(h) should be maintained. US agreed. GP(h) reads: “Consideration should be given to the use of emerging technologies in the area of lethal autonomous weapons systems in upholding compliance with IHL and other applicable international legal obligations”.

Austria stressed that GP(h) was the result of intense negotiations, stating that *consideration* and not *recognition* should be given to the use of emerging technologies to upholding international law. This is different to recognising benefits.

Cuba made the following proposal: “Some delegations consider/acknowledge the potential that emerging technology presents in the area of LAWS for the fulfillment of IHL and there are other delegations that recognise the danger of new emerging technology in the area of LAWS in terms of complying of IHL.”

Australia would like to see removal of references to “self-destruct, self-deactivation, or self-

neutralization mechanisms into munitions and weapon systems,” since they should best be dealt with as control measures.

Russia made similar comments, arguing that these topics were not discussed in any way in the GGE and require serious consideration.

Austria shared Russia’s surprise about the level of details in paragraph 5. Argentina, Austria, Ecuador, and Pakistan called for deletion of the list of described benefits.

Japan welcomed the elements, and pointed out that emerging technology in the area of LAWS can increase precision in targeting and avoid human errors, amongst others.

Switzerland said that it supports many of the risk mitigation measures, and said their inclusion was positive, as it shows that risk mitigation is needed to make use of autonomy.

Switzerland noted that this paragraph implies that states don’t see any benefits of weapons that don’t have any forms of control. It stressed that some of the notions could be put in a more conceptual manner, as they are quite technical for an introduction.

France said that the second part of the paragraph would be better placed in the risk mitigation section.

US said that it was important to acknowledge the benefits of autonomy in WS but agreed that the level of detail for an introduction section may not be necessary, and could be reflected elsewhere in the text.

Russia asserted that emerging technologies in the area of LAWS may be used in existing WS to ensure their accuracy and therefore compliance with IHL. Thus it suggested the following language for paragraph 5: “Recognise that emerging technologies in the area of LAWS uphold compliance with IHL and other applicable international legal obligations, including by increasing speed, precision and accuracy of weapon systems.” India endorsed this.

Russia opposed those requesting deletion of this paragraph, and said its omission would contradict reports from previous GGEs.

France argued that if the GGE wishes to move forward, it should also discuss how some autonomous functions may offer advantages to keep non-combatants safe.

Austria underscored that potential benefits relate to new technology in a broader context than AWS.

New Zealand said it wasn’t aware of the correlation between speed of a weapon system and its contribution to upholding IHL. These *could* be a way to uphold IHL, but is currently not reflected accurately.

Austria stressed that increasing speed of weapons could actually escalate conflicts and can mean a high humanitarian toll. It stressed that “we cannot increase security by increasing our potential to destroy”.

Palestine and Ecuador requested to change “recognise” to “consider”.

Palestine suggested to replace “to be used in upholding” with “to contribute to upholding”. The entire paragraph would read then: “Consider also the potential for emerging technologies in the area of AWS to contribute to IHL while recognising that risks and challenges far outweigh these potential benefits.” Argentina supported this.

Paragraph 6

Current text: *Affirm that a normative and operational framework on emerging technologies in the area of lethal autonomous weapons systems must strike a balance between military necessity and humanitarian considerations.*

Netherlands suggested to speak of “the” NOF instead of “a” NOF. Canada and Australia support this.

Switzerland said that in principle, it supports the notion that the GGE’s work be guided by this consideration, corresponding with GP(k)’s reference to the CCW as a convention that

seeks to strike a balance between military necessity and humanitarian considerations. But Switzerland wondered if the paragraph should be framed “in such an absolute way,” elevating this consideration to a principle that must apply to the NOF. It suggested saying that “we want to have a humanitarian impact “while preserving a balance between humanitarian considerations”. It suggested that it could also potentially build on the preamble of the CCW, notably that the means and methods of warfare available to parties to a conflict are not unlimited.

UK wondered about the necessity of this paragraph as it’s effectively a restatement of what would be required by IHL. It suggested it could be removed.

Russia said that wording already exists on this theme, and that language should be corrected to align with GP(k), which reads: “The CCW offers an appropriate framework for dealing with the issue of emerging technologies in the area of lethal autonomous weapons systems within the context of the objectives and purposes of the Convention, which seeks to strike a balance between military necessity and humanitarian considerations”.

Cuba observed that in GP(k) that the CCW has struck that balance—which is a completely different matter than context of paragraph 6.

Philippines made similar remarks, arguing that GP(k) is descriptive about the CCW, while the current paragraph is more prescriptive, stating that the NOF must strike a balance. Philippines argued that the context behind the descriptive nature in the CCW must be understood, which was agreed at a time when the humanitarian imperative was not yet fully solidified. It stressed that the world has evolved, and military necessity should yield to humanitarian considerations, characterising the evolution of disarmament in that direction.

US said that drawing from GP(k) makes sense, but proposed to move beyond the mere acknowledgement about striking a balance between military necessity and humanitarian considerations. It argued that it’s not always a question of balance, and proposed to add, after “should”: “reflect convergence of military and humanitarian interests and also in other cases

strike a balance between military necessity and humanitarian considerations.”

Israel wants to see this paragraph aligned with the language of past GGE reports.

Cuba and Venezuela said this paragraph is insufficient to create a balance between risks and benefits.

Ireland recognised that this language comes from the 2019 report but said that this paper should aim at clarifying and developing a NOF that ensures compliance with IHL. Ireland argued that while military necessity is a consideration, the concept is relied upon to justify actions contrary of IHL. There is no universal definition of military necessity, which could complicate the GGE’s work. It encouraged the GGE to take guidance from the St. Petersburg Declaration, which acknowledges that necessities of war should yield to requirements of humanity, and not that they should be balanced. Cuba, Ireland, Switzerland, New Zealand, the Philippines, and Panama agreed with Ireland’s concerns and many of those welcomed Ireland’s proposals.

Paragraph 7

Current text: Affirm that a normative and operational framework on emerging technologies in the area of lethal autonomous weapons systems must also address ethical considerations, including in relation to upholding human dignity, retaining human agency and upholding moral responsibility and accountability for decisions to use force.

Cuba supported the idea that a NOF must include ethical considerations (ECs). New Zealand, Panama, and Philippines welcomed the reference to ECs but reiterated that they want a stand-alone section on ECs.

Switzerland stressed the importance of this paragraph and took note of the fact that this aspect will be developed further.

Bulgaria welcomed the inclusion of ECs but said more clarification is needed on the second part of this paragraph, as of “including”.

Pakistan stressed that the paragraph should reflect the objective of the CCW to prevent an arms race, not promote one, and the CCW's recognition that the right of states to choose the means and methods of warfare is not unlimited.

Australia argued that the current paragraph suggests that ECs are additional requirements of IHL, while it believes that ECs are incorporated in IHL. It therefore suggested the following language: "Affirm that the development of any NOF on AWS should also take into account ethical considerations, as applicable."

UK said that ECs like dignity, agency, and moral responsibility and accountability are important factors, but that this paragraph suggests that this would form part of the mandate for the negotiation of a NOF. UK argued that the GGE is far from consensus on this, and said that a wider ethical and moral dialogue is beyond the scope of a NOF. India said for reasons outlined by the UK, this paragraph should be deleted, and relevant ECs can be included in paragraph 4.

Russia said that specific issues related to ECs were not discussed, and that the wording on ECs is too specific. It proposed for paragraph 7 to read: "Affirm that the NOF on emerging technology in the area of LAWS addresses ethical considerations."

Panama suggested strengthening the paragraph to read: "Ethical considerations must be at the heart

of any NOF on emerging technology in the area of AWS, including in relation to upholding human dignity...."

US criticised that there's an omission of any reference to the role of law in guiding recommendations for a NOF. It proposed to refer here to the GP's chapeau, after systems, with "should be guided by international law, in particular the UN Charter and IHL as well as relevant ethical perspectives." It recommended to focus on responsibility and accountability aspects and the deletion of reference to human dignity, agency, and upholding moral responsibility.

Austria raised concerns about requests to delete the reference to "human dignity" in reference to selection and engagement of targets.

Switzerland said that "moral responsibility" is already covered by ECs, and prefers to keep responsibility in the more legal dimensions.

Cuba argued that moral responsibility and accountability shouldn't be limited to decisions to use force. Austria supported this.

Netherlands suggested to speak of "the" NOF instead of "a" NOF. US and Russia agreed.

Panama requested deletion of "lethal".

SECTION 1: CHARACTERISATIONS

Katrin Geyer | Women's International League for Peace and Freedom

Section 1 on characterisations of the **Chair's revised draft paper** covers the features of autonomous weapon systems (AWS), and divides them into fully and partially AWS. The following provides an overview of interventions and positions on section 2.

Overarching comments on section 1

Finland and Russia said this section needs further work. The United States (US) said it wasn't clear what this section's purpose is, introducing three

new definitions. It said that it doesn't believe that definitions are necessary, and would prefer to see this paragraph (para) deleted.

Russia said the Group of Governmental Experts (GGE) should only focus on paragraph b, arguing that the rest does not fall under the GGE's mandate. It proposed deleting "premature" definitions as contained in the paper, and to leave it for future work. India made similar remarks. India and Israel would prefer to see this entire section deleted.

China said it supports prioritising definitions and characterisations in the discussion of the next review cycle of the GGE.

China said that this section reflects recommendations of some countries instead of reflecting the previous interventions and contributions of all parties in a balanced and comprehensive manner.

Israel does not support the inclusion of new limitations and prohibitions going beyond existing law.

Australia said that it cannot accept a text that places limits on autonomy, and that uses language like “must”.

Cuba appreciates this section in helping the GGE understand what is being talked about.

Russia said that the GGE should focus on lethal AWS (LAWS), as determined by the 2016 CCW Review Conference, not just AWS, or fully or partially AWS. China, India, Israel, and ROK echoed this.

Ireland welcomed the approach to resolve differing viewpoints on lethality, and reiterated that international humanitarian law (IHL) fully applies to AWS and an exclusive focus on lethality would create unwelcome gaps in IHL.

Cuba said it wasn't opposed to including “lethality” separately, to create an interrelationship between the degree of lethality of a weapon system (WS) and the need to increase the restrictions or prohibitions on it.

France argued that characterisation needs to include lethality but that this issue could be further discussed, and could be pointed out as such in the Chair's paper (CP).

Switzerland said that limiting the scope to LAWS would not be acceptable.

Russia said the character of lethality and ‘autonomousness’ are the two categories that are fundamental in the discussions.

Russia said there are lots of questions and differing understandings of what the weapon systems under discussion are. It said more careful discussion is required to come up with a single understanding of these systems. Otherwise there will be legal uncertainty, in particular when discussing recommendations with respect to a normative and operational framework (NOF) governing these systems or studying possible options for regulating such technology.

Netherlands argued that the CP could refer to AWS characterisations coherently throughout the paper, and that there should be consistency in how the WS are referred to.

Australia said it would be more useful if the GGE focused on specific problematic uses, instead of on the use of autonomy in WS. The latter would risk applying generic characterisations to the use of autonomy in weapon systems that have been used for decades.

Switzerland proposed that considerations and b and c could also be included in the ‘Implications’ section.

Definitions vs. characterisations

India supports a comprehensive and legal definition of LAWS as requirement to elaborate a NOF.

Turkey said that a definition of LAWS is required before preventing some weapons' capabilities.

Japan said it was risky to engage in a fixed definition, and that further discussion and clarification is needed to understand the degree or kind of regulations or prohibitions required. ROK echoed this.

Austria said that a functional definition was required that holds the test of time and is technology agnostic. Ireland also warned against a fixed definition as it's unlikely to stand the test of time.

United Kingdom (UK) said the GGE should seek a characterisation, not a definition. Definitions can

can have unintended consequences and risks drawing lines that the GGE does not need.

Brazil, Chile, and Mexico said that a precise definition was not needed at this stage.

Philippines reaffirmed the need for characterisation and not an exact definition of AWS and said that there exist enough elements for a common understanding.

Germany suggested not to aim for a detailed definition but to focus on the two-tier approach, based on fully and partially AWS.

Switzerland cautioned against a too rigid approach which could fail to include future systems. It said that this section should be broad enough to cover all autonomous systems that could affect compliance with IHL.

Two-tier approach to fully and partial AWS

Switzerland welcomed the “modular”, two-tier approach in paras b and c, contributing to identifying systems that would be illegal and need to be prohibited, and those that need to be regulated.

Japan was unsure about the gradual categorisation as it is underpinned by the hypothesis that the more autonomous a system is the greater risk it poses to compliance with IHL. While it understands this instinct, it can't be confident about this yet.

Australia said it doesn't find the distinction between “fully” and “partially” helpful, as autonomy is a capability and not a WS.

China said that the paper's proposal to characterise LAWS based on the degree of autonomy and to discuss the relevant control measures on this basis makes certain sense but differentiating with a single indicator (autonomy) is too general nor is it science-based.

Palestine opposed the distinction between fully and partially AWS. It argued that this gives the misleading impression that only fully AWS should be prohibited, and others should be regulated. It stressed that the criteria should be whether it can

be governed by meaningful human control (MHC) and if it is consistent with ethical considerations (ECs). It said that while all fully AWS would be prohibited, also some partially AWS would be prohibited, including those designed to target human beings. Philippines supported the inclusion of ECs in determining regulation of AWS.

Ireland struggled with the distinction between fully and partially, as the definitions in paras b and c are overly rigid, and don't capture the full spectrum of autonomy. Ireland urged to focus on para a that does focus on the spectrum of autonomy. Pakistan agreed.

Brazil, Chile, and Mexico jointly said that the distinction between fully and partially seems artificial. They noted that fully AWS as described are already prohibited by IHL. The distinction between fully and partially is about human control and command, rather than an autonomy spectrum. They argued that paras b and c implicitly presuppose that as long as a system is within the military command and control structure, their use would be compliant with IHL.

Austria said that binary characterisation is not helpful, as autonomy is a spectrum.

Philippines said that while there is value in having a differentiation that clarifies which WS must be prohibited and regulated in accordance with international law and ECs, it cautioned against a differentiation that leads to oversimplification rendering a NOF insufficient to address the risks and challenges identified.

UK said that the references to fully and partially AWS haven't achieved consensus. It argued that if the GGE agrees on this distinction, it needs to go further than definitions, by articulating AWS' characteristics that may have positive and negative implications for IHL compliance.

France said the text proposed goes into right direction with the distinction of partially LAWS (PLAWS) and fully LAWS (FLAWS).

US said it wasn't prudent to seek to define fully or partially AWS. It said it was not necessary to determine what should be prohibited or regulated

for IHL and that there is nothing in the nature of a WS that can determine its legality.

US said that a working definition should focus on function that is being performed rather than particular kinds of technology, so as to prevent it be under-inclusive or rendered obsolete.

Human control and chain of human command and control

New Zealand wondered where the term “responsible chain of human command and control” originates from, noting it differs from MHC.

Argentina said that this section should be short, concise, and simple, focusing on HC, and which degree of human intervention is acceptable from the point of view of IHL and international human rights law (IHRL).

Germany said that the framework of human command and control is the necessary condition to ensuring WS can be used in compliance with IHL.

Israel said the term HC to define and discuss LAWS should be replaced by other terms such as involvement or intervention which have been discussed. It said a viable compromise would be human-machine interface or human involvement, as already agreed language, instead of HC.

Working definitions and characterisations

Austria reiterated its endorsement of the International Committee of the Red Cross (ICRC)’s proposal which includes two elements: 1) the degree of autonomy, in particular in the critical functions of selection and engagement of targets, and 2) the importance of clarifying the relationship between the human role and the prospective autonomous function. Brazil, Chile, and Mexico also supported the ICRC’s proposal because it highlights the most challenging aspects of AWS vis a vis IHL and IHRL.

Australia said that discussion on characteristics should include these four elements: autonomy, combat functionality, compliance with IHL, and control. It was concerned about tendencies of oversimplification in the paper.

Ireland said a working definition should acknowledge functionality of a WS, and should focus on the relationship between technology and humans, focused on IHL compliance and HC.

Philippines said that characterisation must reflect the nature of the WS and the method or manner with which they are deployed. This could be realised by a characterisation or definition that reflects the application of autonomy in the critical functions as defining features of AWS.

The Non-Aligned Movement (NAM) shared its understanding of an AWS: “Weapons that can autonomously select and engage target without the direct supervision of human beings should be characterised as AWS”.

China made the proposal to examine fully AWS based on indicators such as being fully autonomous, unable to terminate, indiscriminate, and evolvable.

Palestine proposed the following language to holistically address AWS: “A weapon system may be characterised as an AWS if it incorporates autonomy into the critical functions of selecting and engaging to apply force against targets.” Argentina supported this.

US agreed it would be helpful to have a common understanding on WS under discussion, and proposed the following language: “A weapon system may be characterised as autonomous if, once activated, it can select and engage targets with force without further intervention by a human operator.”

Brazil, Chile, and Mexico jointly recalled their understanding of characteristics of AWS: 1) Autonomy, meaning the weapon or WS has a level of independent decision-making capability, an action to operate in a real-world environment without any form of control in any or all of the critical functions of acquiring, tracking, selecting, and attacking targets; 2) AI enabled, meaning the weapon or WS uses AI technologies to perform any or all of critical functions of acquiring, tracking, selecting, and attacking targets that would otherwise require human intelligence. Such technologies include, inter alia, algorithms,

machine learning, neural networks, deep learning, and robotics; 3) Limited or no HC or decision-making, meaning the weapon or WS operates either partially or fully independently from HC or decision-making in the real-world environment in any or all of the critical functions of acquiring, tracking, selecting, and attacking targets. Brazil, Chile, and Mexico said that a combination of these characteristics could render AWS indiscriminate in nature if it cannot be directed at a specific military objective, or cause superfluous injury or unnecessary suffering, or if its effects cannot be limited as required by IHL or is incompatible with IHL due to the way that it is used.

Brazil, Chile, and Mexico jointly proposed: “A WS may be characterised as autonomous if it can, through the use of sensors, computers, and algorithms, perform the critical functions of selecting and engaging to apply force against targets without meaningful human control.”

Algeria repeated its understanding of LAWS: “Weapons that autonomously select and engage against target without direct control and supervision of humans.”

Paragraph a

Current text: A weapon system may be characterized as autonomous if it can, through the use of sensors, computers and algorithms, perform the critical functions of selecting and engaging to apply force against targets without intervention by a human operator or without permanent human involvement or control.

New Zealand would like to understand the significance of adding “engaging to” before “applying force”.

The Alan Turing Institute said control relates to the way of deploying a WS and is not a feature of the WS itself. It suggested including a reference to data of environment in which WS operate. It said a more accurate description would be to include “through the use of sensors, computers, and algorithms, elaborating data from the context of use...”. It also said that learning and adaptation will be the most pressing issues in future developments and deployment of AWS, and should be reflected.

UK argued that the main characteristic of an AWS implied in this para is that it operates without intervention or permanent human involvement or control. UK agrees that the human role is the key focus but said that this risks implying that control and autonomy are mutually exclusive, which they are not. It said that the way it is described now could describe an extremely broad range of systems, including those with automated and autonomous functions.

Germany suggested deletion of this para, and the integration of parts, where necessary, into paras b and c.

US said that the term “critical functions” was not helpful, and should be replaced by “selecting and engaging targets”.

US didn’t agree with the wording of “permanent human involvement or control,” since all WS operate at some point without HC, such as a bullet that cannot be controlled after it’s fired.

US noted that the element of “without human intervention” misses that weapons are built and activated by humans. It only wants to consider whether weapons can select and engage targets without human intervention.

France suggested language to simplify, and to replace “intervention by human operator or without permanent human involvement or control” with “sufficient human involvement or control”. This allows clarification of the concept of autonomy and reflects that the degree of interaction between humans and machines might differ depending on the system considered. It also ensures overall consistency of the text.

Switzerland welcomed the first part of this para, referring to four key concepts that can narrow the scope of WS: reference to sensors and computer algorithms; critical functions; select and engage; and application of force.

Switzerland said that “without intervention by a human operator or without permanent human involvement or control” could be replaced by “without direct human involvement” to be clearer.

Ireland said that “intervention of human operator” or “permanent control” should be replaced by “without HC”. Pakistan echoed this.

New Zealand argued that “HC” and “human intervention” are at the opposite ends of a spectrum. It also expressed surprise at the word “permanent”.

Portugal requested further clarification of the term “permanent human involvement”.

New Zealand was surprised about the new parameters for the definition, and would like to understand the importance of “sensors, computers, algorithms”.

India said that the way that this para is worded, it seems that “characterised” has been used interchangeably with “defined”, and that the definition is overly simplistic which doesn’t suit the purpose of the GGE.

Paragraph b

Current text: *Fully autonomous weapons systems are autonomous weapon systems that are designed to operate outside a responsible chain of human command and control.*

Netherlands said that it should be further elaborated what the “responsible chain of human command and control” contains.

Palestine requested deletion of this para.

France proposed to replace the para with the following language: “FLAWS are those WS capable of acting without any form of human supervision or dependence on the command chain by setting their own objectives or modifying without human validation their initial programming or mission framework.”

Pakistan said it failed to understand how any military would develop WS it can’t control.

Paragraph c

Current text: *Partially autonomous weapons systems are autonomous weapon systems that are designed*

to operate within a responsible chain of human command and control.

Cuba would have liked to see a reference to drones in this para.

Netherlands said it has to reflect further on partially AWS before taking a position on this matter. It is currently awaiting the outcome of an independent study, on the basis of which it will evaluate its position regarding AWS.

Palestine requested deletion of this para.

France suggested to replace this para with the following language: “Partially AWS are AWS that operate within a responsible chain of command and where appropriate, human control can be retained during the whole lifecycle of the system considered.”

Pakistan said that “chain of human command and control” emanates from the GPs but that in the GPs, it is related to accountability and said it wasn’t the appropriate methodology to characterise the capabilities of WS or technologies.

Paragraph d

Current text: *Weapons systems that incorporate autonomy only into functions other than to select and engage to apply force against targets cannot be characterised as autonomous weapons systems.*

New Zealand would like to understand the significance of adding “engage to” before “apply force”.

Switzerland supported this para with the new wording, and said that it could be narrowed down further by specifically stating that this understanding of AWS does not include “cyber weapons”.

Portugal said this para is too restrictive.

Brazil, Chile, and Mexico said this para is superfluous.

Pakistan said that this paragraph does not cater to all of the areas that have been discussed.

SECTION 2: APPLICATION OF INTERNATIONAL LAW

Ray Acheson | Women's International League for Peace and Freedom

Section 2 of the [Chair's revised draft paper](#) covers the application of various bodies of international law (IL) to autonomous weapon systems (AWS). It also deals with questions about state and human responsibility and accountability, and concludes with a subsection on implications of these considerations for a normative and operative framework (NOF) on AWS.

One of the key debates during review of section 2 centred on which bodies of IL are applicable to AWS, with most delegations supporting the relevance of international humanitarian law (IHL), international human rights law (IHRL), international criminal law (ICL), and the UN Charter. However, a handful of delegations believe only IHL applies and called for the deletion of references to all other legal obligations, norms, and frameworks.

Another key point of contention was the subsection on "implications," which incorporates the "general commitments" from the [previous draft](#) of the Chair's paper. While most delegations clearly want to advance the development of IL to prevent the risks, challenges, and harms posed by AWS, a handful of states oppose what they perceive as new commitments or obligations that might constrain their ability to develop and use AWS.

The following provides an overview of interventions and positions on section 2.

Overarching comments on section 2

United States (US) called for an introductory paragraph, as a chapeau, to orient the section. India agreed. Cuba suggested the chapeau reference IHL, the UN Charter, and ethical perspectives.

US called for a subheading before paragraph (para) 1 of the section to refer to IHL, from which the next six paras would flow. Australia and the Republic of Korea (ROK) agreed. Philippines disagreed.

Australia also suggested additional subheadings for the section, including: ensuring compliance with IHL, including through ensuring control measures;

state responsibility; and individual accountability. Under its proposed new subheading on control measures, Australia suggested the following language: "Control measures are necessary and should be designed to ensure the use of AWS is in compliance with IHL. A system of control to ensure IHL compliance comprises various types of control measures which can be tailored to a specific type of capability, and control measures should be applied at the appropriate point or points during the course of a life cycle of weapon systems." Netherlands agreed though said it's not sure section 2 is the right place for this.

India would prefer "Application of IHL" to be the title of this section.

Cuba said "Application of international law" suggests IL is sufficient and argued the title should reflect the gaps. Brazil, Chile, and Mexico jointly made a similar comment. New Zealand (NZ) also said the current title isn't accurate.

Austria suggested the title "considerations relevant to IL".

Argentina said the title should be kept as it is.

Russia said there is no added value to discussing the heading or subheading.

Philippines called for better balance among IHL, IHRL, ICL, and ethical considerations in section 2.

Philippines expressed concern that the "commitments" section in the previous draft is now "implications" and has less prominence. It urged sticking with "commitments".

Algeria said this section should reflect the dynamic nature and development of IHL. Austria agreed.

Brazil, Chile, and Mexico jointly said AWS raise specific ethical, legal, and military challenges to which existing IHL does not give clear guidance. To avoid redrafting IHL, more specific rules are required. It is inadequate for law to "take into

account” autonomous technologies; new explicit rules are needed to avoid fragmented measures resulting from national interpretation.

The International Committee of the Red Cross (ICRC) noted that due to the divergent views on how existing IHL applies to AWS—i.e. in what ways they constrain their development and use, what requirements derive from IHL for their use, what methods and types of use are deemed incompatible, etc.—such divergences may lead to some states using weapons that others deem not allowed. Thus, developing new legally binding rules to specifically regulate AWS is best way forward. ICRC agreed with others that the law must evolve to meet new challenges and adopting rules on AWS is in line with the CCW preamble’s acknowledgement of the “need to continue codification and progressive ... of rules applicable...”

Future possible work on relevant issues

China supported the suggestion to compile a compendium of IL applicable to AWS.

Finland called for consideration of Portugal’s suggestion from the last GGE session to follow the format of the [Montreux Document](#) to create such a compendium.

Portugal said such an analysis would help operationalise the Guiding Principles (GPs) by clarifying applicable IL. It wouldn’t be a legally binding instrument (LBI) but would help inform future discussions.

US argued this is the work of the GGE already.

Australia, Netherlands, and Russia said these suggestions might be useful.

Philippines said a compendium might be useful but could distract from urgent work of developing recommendations for a NOF.

Austria said it has difficulties understanding how such a compendium would be different to the entirety of IHL, noting that the politically binding Montreux Document is a way for states to ensure their compliance with IL.

Paragraph 1

Current text: *International law, including the Charter of the United Nations, international humanitarian law, international human rights law and international criminal law applies fully to all weapons systems, in particular the development and use of autonomous weapons systems.*

Turkey called for adding “applicable” before IHL.

US urged the language be brought in line with the GPs, to read: “IHL continues to apply fully to all weapon systems (WS), including the potential development and use of LAWS.” India, Israel, Japan, ROK, and Russia agreed.

India said “potential” and “lethal” should be added.

Switzerland said the wording could be made clearer that IHL applies to the development and use of all weapons, including AWS.

France suggested adding “including to” before “development and use” to remind that AWS are not separate weapon systems (WS) and therefore IHL is applicable to these systems like any other.

Argentina and Panama said the current language should be retained.

In response to the calls to revert to the language of the GPs, Cuba argued this language does not refer to the *applicability* of IL but is about reviewing *impact* of IL. These are different matters; the Chair’s paper is trying to advance the discussion.

Brazil, Chile, and Mexico jointly suggested deleting “development and use” to streamline the para.

Applicable elements of IL

There was an extensive debate about what elements of IL should be included in this section.

Turkey suggested deleting the reference to ICL.

US said IHRL is not fully applicable to WS and while there might be a place elsewhere for a general reference to it, it should not be included in this section.

India agreed with deleting the references to ICL and IHRL.

Cuba said it cannot agree to limiting this section exclusively to IHL. It supported the inclusion of ICL, arguing that doesn't imply all ICL applies to all states if they are not party to a specific agreement, and arguing the cornerstone of IL is customary law, which applies regardless of the ratification of specific treaties.

United Kingdom (UK) said the UN Charter doesn't mention weapons, but rather the use of force, so to suggest it applies fully to AWS might create confusion. It also agreed that different obligations of IL apply to different states and thus suggested saying that "development and use of all WS, including AWS, must be set within international legal framework, which includes considerations which arise from the UN Charter as well as IHRL, and as appropriate ICL."

Australia said it could accept a reference to "other applicable international law" to indicate these regimes won't necessarily apply in any given circumstances.

Amnesty International clarified that IHLR is always applicable, inside and outside of armed conflict, while IHL is limited to use of force during armed conflict. IHL and IHRL operate concurrently; the International Court of Justice affirmed that IHRL applies in situations where IHL is applicable and the Human Rights Committee has affirmed that both spheres of law are complementary, not mutually exclusive. Since AWS undermine the right to life, right to remedy, and principle of human dignity, these WS raise ethical and human rights (HR) concerns. Amnesty said the current draft highlights certain IHL rules and alludes to IHRL and ICL, but neglects full consideration of IHRL, doesn't strike balance of risks and benefits, and doesn't give enough attention to dehumanization. It urged greater focus on HR.

Philippines welcomed the inclusion of IHLR and ICL. It argued that the insinuations that ICL and IHRL don't apply or are less important is inconsistent with well-established principle that IHL and IHRL operate concurrently and complementary and aren't mutually exclusively. It agreed the use of

AWS must comply with IHL and IHRL because their use risks HR violations.

Portugal said it welcomes the references to other bodies of IL.

Sri Lanka supports the retention of IHL and IHRL, noting that protection of human dignity is a common aim of both, and that AWS could be used outside of armed conflict so the application of IHRL to AWS is logical.

Argentina called for retaining the references to IHLR and ICRL, pointing out that the **UN Secretary-General's disarmament agenda** recognises that different technologies in WS will have and already do have impacts on international peace and security and IL. Argentina also used the example of the **Arms Trade Treaty (ATT)** to make the case for including broader IL when it comes to AWS. The ATT recognises that peace, security, development, and HR are pillars of UN system, and refers to the obligation to respect IHL and HR in line with the UN Charter and **Universal Declaration of Human Rights**. Article 7 of the ATT prohibits transfers of weapons when there is risk they might be used to commit or facilitate serious violation of IHRL. If a treaty that regulates broad aspects of conventional weapons, such as the ATT, recognises link between weapons and HR, what are legal arguments to say these branches of IL wouldn't be applicable in the case of any future conventional weapons that have certain levels of autonomy?

Panama said it is bewildered that some delegations are requesting the elimination of a reference to the UN Charter given that these same delegations are committed to language of the GPs, which also refer to the Charter. Panama agreed with others that the development and use of AWS will have significant impact on IHRL and HR, such as right to life and that IHL and IHRL are compatible. It highlighted that the UN Office for the High Commissioner of Human Rights published a **report** stressing the urgent need to **establish a moratorium** on the sale and use of systems with artificial intelligence (AI) that might undermine HR until relevant safeguards are put into place and calling for AI running counter to HR to be prohibited. Meanwhile, Panama said, ICL is closely related to IHL, as it obligates states to investigate serious violations of IHL. ICL

is fundamental to ensure accountability and is relevant for when AWS are used to commit crimes against humanity, war crimes, or genocide.

Netherlands said the reference to the UN Charter should be retained. While the Netherlands agreed that IHRL applies during armed conflict, it worries that a reference to IHRL might block consensus. It argued that even if a specific reference isn't included in the recommendations, that doesn't preclude that IHRL may apply under certain circumstances to AWS. Netherlands suggested simply referring to "IL, as applicable," as reflected in GP(h). Netherlands also said it could support the inclusion of ICL but the current formulation may be misleading since ICL deals with prosecution of criminal offences committed by humans.

Japan acknowledged IHRL and ICL have bearing but still supports reverting to the language of GP(a).

Israel argued that the CCW is an IHL framework and thus this section shouldn't refer to other legal frameworks.

UK said it doesn't contest that IHRL applies in context of armed conflict and it doesn't object to an appropriate reference to IHRL, but argued that a reference to IHRL "at large" isn't appropriate for examining what the law means in the context of AWS in armed conflict. It called for the paper to reflect the way in which disciplines apply, rather than suggesting that all provisions apply, and said the Netherlands' suggestion to refer to applicable law is helpful to capture this concept.

Brazil, Chile, and Mexico jointly welcomed the references to IL, IHL, IHRL, ICL, and the UN Charter.

Austria said it doesn't make sense to treat IHL as an island, as other forms of law are relevant.

NZ said it welcomes the references to IHL, IHRL, and ICL, all of which relate directly to the work of this GGE. It isn't sure if it's right to say they apply "in particular" to AWS rather than other WS, and suggested "including" instead.

ICRC agreed that IHRL applies at all times, and that it complements and reinforces IHL, as both

are concerned with protection of life, health, and dignity.

Campaign to Stop Killer Robots (CSKR) welcomed the references to IHL, IHRL, and ICL. It reminded that discussions on AWS started in the Human Rights Council with a report from the UN special rapporteur on extrajudicial, summary, and arbitrary executions, and that there have been many expert reports since then highlighting the wider social implications of autonomy in WS. The Campaign recalled that in March 2020, the African Commission on Human and Peoples' Rights passed Resolution 504, which called for meaningful human control over the use of force to protect fundamental human rights and states that it is "inhumane, abhorrent, repugnant, and against public conscience for humans to give up control to machines." CSKR said states must not selectively narrow the laws applicable to this issue, arguing this undermines the rule of law as a whole.

Paragraph 2

Current text: *In cases not covered by the Convention and its annexed Protocols or by other international agreements, the civilian population and the combatants shall at all times remain under the protection and authority of the principles of international law derived from established custom, from the principles of humanity and from the dictates of public conscience.*

The US argued this para waters down para 17(g) in the **2019 GGE report** and suggested adding "involving WS based on LAWS" after "in cases," to bring in alignment with previously agreed language.

India called for reversion to the language of para 17(g). Japan and Russia agreed.

Cuba suggested that since this para says there are cases not covered by law, it should call for the development of an LBI.

Cuba also argued that IHL applies at all times and is not limited to specific cases.

Cuba called for differentiation between principles of IHL and customary law.

UK said this para should properly reference the Marten's Clause and set out its operation. It should not draft a new rule but reflect rules that we understand to apply. It said the para should be declarative and say what does apply, not what shall apply. Civilians and combatants do at all times remain under protection and authority of principles of IL under all times, as derived from custom and principles of public conscience.

ROK said it supports this para.

France suggested moving this para to the introduction to make the distinction between what is part of legal obligations under IL and other types of considerations.

Brazil, Chile, Mexico, Philippines, and Sri Lanka welcomed the reference to principles of humanity and dictates of public conscience.

Paragraph 3

Current text: *The development and use of weapons systems based on emerging technologies in the area of lethal autonomous weapons systems must be conducted in accordance with applicable international law, in particular international humanitarian law and its requirements and obligations and principles, including inter alia distinction, proportionality and precautions in attack and the protection of persons hors de combat.*

US said this seems based on para 17a of the 2019 GGE report and recommended using the same language, because the development of WS isn't specifically constrained by IHL. India and Russia agreed.

US suggested deleting "development and" and insert instead: "The potential uses of weapons."

US said it does not object to the addition of "protection of persons hors de combat" (HDC), but said it should read "persons placed hors de combat," to reflect common article 3 of the Geneva Conventions. India said it would consider this proposal.

US suggested inserting "those related to" before "distinction" to capture broader range

of requirements and to clarify the reference to protection of persons HDC.

Netherlands said it needs to study the US' suggestions.

India suggested deleting the word "obligations".

ROK said it supports this para.

Australia suggested deleting the reference to protection of persons HDC, arguing this is captured in the principle of distinction. France agreed.

The International Panel on the Regulation of Autonomous Weapons (iPRAW) pointed out that various legal scholars take the view that the principle of distinction does not necessarily encompass persons HDC. Rules of distinction can be found in a different place to rules protecting combatants HDC, which are set out in Article 41 of the Additional Protocol of the Geneva Conventions.

Australia suggested merging paras 3 and 4, wherein para 3 would end with "attack" and para 4 could commence with "such requirements and obligations..."

Sri Lanka agreed the paras could be merged.

Argentina, Panama, and Philippines called for the deletion of "lethal".

Sri Lanka suggested replacing "WS in the area of LAWS" with "AWS," arguing that the development and use of all AWS must be in accordance with IL, not just LAWS.

Netherlands suggested deleting the word "attack" to make the obligation broader and in line with IHL.

NZ said it wants to understand the reference to "IHL and its requirements and obligations and principles," which seems to be unusual reference.

Paragraph 4

Current text: *These international humanitarian law requirements, obligations and principles must be applied through a responsible chain of human command and control by the human operators*

and commanders who use weapons systems based on emerging technologies in the area of lethal autonomous weapons systems, including autonomous weapons systems.

US called for reversion to para 17d of the 2019 GGE report. Russia agreed. Netherlands said it needs to study the US' suggestions.

India suggested deleting the word "obligations".

UK said it agrees that IHL responsibilities are applied throughout the cycle of command and control (C&C). However, responsibility is broader than C&C and also includes other stages such as during the decision to develop weapons, in review process, and in safety and security processes.

ROK said it supports this para, though said the final part may require further clarification. It suggested the para should articulate the relationship between LAWS and AWS and urged the deletion of AWS.

Australia would prefer to say "human commanders and operators" to better reflect military command.

Philippines said it would prefer "implemented" rather than "applied". Argentina, Panama, and NZ agreed.

Philippines said the sentence should stop at "commanders" and said a NOF shouldn't only apply to use of AWS but also to development. Panama and Sri Lanka agreed.

Argentina and Panama called for the deletion of "lethal".

Japan wondered about the addition of "including autonomous weapons systems" at the end, and if this accurately represents the relationship between LAWS and AWS.

Israel said it's not sure what implementing IHL through a chain of command actually means. It suggested dropping the para or focusing instead on the personal obligation of commanders and operators to implement IHL.

Brazil, Chile, and Mexico argued this para conflates two concepts and said the need for human

control (HC) should be highlighted. Austria agreed suggesting it say "...must be applied through meaningful human control, including a responsible chain of human command...".

Paragraph 5

Current text: *Context-based human judgement and control based on consideration of all information available at the time of the decision is essential in order to ensure that the potential use of autonomous weapons systems is in compliance with international law, and in particular international humanitarian law.*

US said it should be moved after para 6 and then adding the word "such" at beginning, to explain the relationship between paras 5 and 6. Australia agreed.

US called for reversion to para 17e of the 2019 GGE report. Japan and Russia agreed.

US said if this version is used instead, it wants to delete "context-based" and "control;" change "based on consideration" to "should include consideration;" add "relevant" before information; replace "decision" with "judgement;" replace AWS with LAWS. India said this proposal deserves serious consideration.

Netherlands said it needs to study the US' suggestions.

Israel said it would prefer to delete para 5, or otherwise revert to the language of 17e or make the amendments suggested by the US.

Australia and India agreed with deleting "context-based".

UK suggested combining paras 5 and 6 and emphasising that compliance with IHL requires judgement and making sure not to unintentionally suggest that lesser provisions apply to other WS.

Switzerland said this para should focus on ensuring compliance with IL, noting that different types of control over weapon parameters, design, operational context, and human-machine interaction (HMI) are central and possible. It supports the language "context-based human

judgement and control,” arguing that the operational context and the characteristics of the WS and objects to be expected in specific operations matter. The para should cover information that is reasonably available to commander or operator.

Philippines also welcomed the reference to “context-based human judgement and control” but said the current formulation doesn’t do justice to the exact nature of control. Judgement is a component of control; control is broader. It suggested reformulating it to say: “Meaningful human control (MHC) and context-based human judgement are essential...” Argentina supported Philippines’ reformulation and called for deletion of language related to information available to them at the time. Panama agreed.

Brazil, Chile, and Mexico jointly asked for clarification about what decision is being referred to in the phrase “consideration of all information available at the time of the decision.”

Netherlands suggested deleting “potential”.

NZ asked for clarification about what decisions and what time is being referred to here and in para 6—are they references to the decision to deploy AWS, or to attack or apply force, or in relation to target selection and engagement?

ICRC supported retaining “context-dependent,” noting that all legal rules, including IHL, must be interpreted in concrete situations by humans. To comply with rules, people who plan an attack must make context-dependent value judgments based on information available at the time.

Paragraph 6

Current text: *Compliance with the international humanitarian law rules and principles, including inter alia distinction, proportionality and precautions in attack, in the potential use of weapons systems based on emerging technologies in the area of lethal autonomous weapons systems requires inter alia that human beings make certain judgements in good faith based on their assessment of the information available to them at the time.*

US said it is generally comfortable with this para.

India called for reversion to para 17f of the 2019 GGE report and called for the deleting of the word “rules”. Russia agreed with both points. Japan likewise said it would be better to stick to agreed language, asking about the rationale behind replacing “requirements” with “rules”.

Cuba argued the link between compliance with IL and “good faith based on assessment of information” overlooks that there are objective violations of IL regardless of good or bad faith. If an actor attacks a hospital, it doesn’t matter if it had good or bad information, it has violated IHL. Brazil, Chile, and Mexico agreed.

Sri Lanka welcomed the recognition that humans must be the ones to make judgements in good faith.

Argentina called for the deletion of “lethal”. Netherlands suggested deleting “potential”.

Brazil, Chile, and Mexico jointly suggested merging paras 5 and 6.

Austria said its understanding is that “good faith” is a civil law rather than international law term. It said it might have been chosen to highlight the role of human judgement obligations of taking all feasible precautions, and therefore recommended replacing the last part of the para with “human judgement is an essential element in taking all feasible precautions.”

NZ asked for clarification about what decisions and what time is being referred to here and in para 5—are they references to the decision to deploy AWS, or to attack or apply force, or in relation to target selection and engagement?

ICRC called for strengthening the idea of context-dependent decision making in this para.

State and human responsibility

A few delegations made overarching comments on this subsection.

Cuba said the title of this subsection should only refer to state responsibility, because that is

separate from human responsibility, from a legal perspective. Cuba also noted that para 8 talks about individuals and para 11 about humans, and said from a legal perspective these are also different.

US said this subsection is useful and appreciates its inclusion.

Switzerland commended the Chair for including this subsection but said further work is necessary on wording, as there appear to be certain overlaps between different forms of responsibility and accountability that need to be clarified.

UK argued that paras 4, 11, and 13 all consider human responsibility and accountability in a slightly incremental way. It encouraged the Chair to address these points in a more uniform way to be clear about how responsibility and accountability apply across the WS' lifecycle. Australia agreed.

Philippines said it supports others who have stated the need to better balance obligations stemming from law beyond IHL.

Paragraph 7

Current text: *International humanitarian law imposes obligations on States, parties to armed conflict and individuals, not machines.*

India and Russia said this para can be kept as is.

Cuba said this para should say "International law, including IHL..."

Cuba called for a reference to MHC.

Argentina suggested deleting the word "humanitarian" and replacing "parties to armed conflict" with "non-state actors". Philippines agreed.

Paragraph 8

Current text: *States, parties to armed conflict and individuals remain at all times responsible for adhering to their obligations under applicable international law, including international humanitarian law. States must also ensure individual*

responsibility for the employment of means or methods of warfare involving the potential use of weapons systems based on emerging technologies in the area of lethal autonomous weapons systems in accordance with their obligations under international humanitarian law.

India and Russia said this para can be kept as is.

Cuba argued states need to do more than ensure individual responsibility, they need to also ensure the state itself complies with the law.

Cuba suggested adding a reference to persons under its jurisdiction.

Argentina suggested deleting the words "humanitarian" and "lethal". Philippines agreed.

NZ wants to understand whether the reference to "the responsibility for the employment of means or methods of warfare..." means individual responsibility to deploy the AWS or for what the AWS does once deployed, or if these are intended to be one in the same?

Paragraph 9

Current text: *Under principles of State responsibility, any internationally wrongful act of a State or attributable to a State, including such acts involving the use of emerging technologies in the area of lethal autonomous weapons systems, entails the international responsibility of that State.*

iPRAW said from the perspective of IL and especially law on state responsibility as reflected, inter alia, in the draft articles of the instrument on internationally wrongful acts, states as entities can never act as themselves but always, in all circumstances, have to be represented by a state organ. Thus, the terminology of "any internationally wrongful act of a State or attributable to a State" may be misleading, as the state itself can never act but will always be represented by state organ. It also said individual responsibility may also play a role, which may be derived from IHL or from ICL.

Russia said this para offers "excessive detail" of what is already covered in para 8 and is not necessary.

Cuba disagreed with Russia, arguing this para is central, but the GGE needs to identify the primary obligations under IL that relate to this para.

US suggested using “every” in place of “any” before “internationally wrongful act,” noting this comes from the [International Law Commission \(ICL\)’s draft articles on the Responsibility of States for Internationally Wrongful Acts](#). India, Israel, and UK agreed.

US suggested deleting “or attributable to a state,” which it sees as duplicative, arguing the phrase “wrongful act of a state” already includes concept of attributable to a state. India agreed.

Switzerland said it considers the ICL’s draft articles as reflecting customary law and therefore are rules and not just principles; it thus recommends staying close to language of draft articles and notes that state responsibility only applies if a legal act or omission can be attributed to a state.

Cuba suggested adding “and omissions” alongside “all acts” in order to be consistent with principles of state responsibility.

NZ said the phrase “or attributable to a state” isn’t necessary.

Paragraph 10

Current text: *A State remains responsible for, inter alia, all acts committed by its organs including members of its armed forces, including any such use of emerging technologies in the area of lethal autonomous weapons systems, in accordance with applicable international law.*

iPRAW said this para should take into account that states aren’t only responsible for state organs whose behavior acts or omissions are attributable to the state, but are also responsible for a wide range of other possible actors, as indicated by the term “inter alia,” whose behavior might also be attributable to a state, such as persons exercising governmental functions, but who aren’t considered state organs per se.

Russia said this para offers “excessive detail” of what is already in para 8 and is not necessary.

Cuba disagreed with Russia, arguing this para is central. Cuba said in addition to its organs, a state is also responsible for other actors such as private companies that participate in armed conflict on the basis of state interests, and suggested the para reflect the principle of IL that a state is responsible for the behaviour of individuals and entities under its control. Cuba suggested referring to international customary law in this context.

US suggested placing phrase “including members of” with “such as,” because “organs” implies groups, not individuals, which is what “members” implies. Israel agreed. Argentina and ROK agreed.

Switzerland said the wording could be expanded to go beyond organs and armed forces and include persons or groups, acting on instruction of or under control of a state.

UK said that in the phrase “including any such use,” it is not clear what “such” refers to and suggested deleting the word.

Argentina suggested deleting the word “lethal”.

Paragraph 11

Current text: *Human responsibility for decisions on the use of weapons systems must be retained since accountability cannot be transferred to machines. This should be considered across the entire life cycle of the weapons system.*

Russia suggested changing to language in line with GP(b): “Human responsibility must be maintained throughout the entire lifecycle of WS based on emerging technologies in area of LAWS, including with respect to decisions on the use of WS, since accountability cannot be transferred to machines.” India agreed.

Cuba suggested moving this para to the next subsection on human accountability.

Argentina said it would prefer to go back to the earlier draft’s formulation. Philippines agreed.

Israel said this para should be at the beginning of the current subsection.

NZ asked if this para is about responsibility for the decision on the use of WS, then how is this to be considered across the entire lifecycle of the WS?

Human accountability

A few delegations made overarching comments on this subsection.

US said this subsection is useful and important.

Ireland said there is scope to streamline this subsection, especially in paras 16 and 17, where such detail may not be necessary in this kind of a document.

Chile agreed, noting that these kinds of practices listed in paras 16 and 17 would be better suited for further engagement in an exchange of best practices once we have a regulatory framework. If we try to identify practices without first agreeing to essential elements of regulation, it will be difficult to determine if they are comprehensive and exhaustive.

Paragraph 12

Current text: *Humans must at all times remain accountable in accordance with applicable international law for decisions on the use of force.*

Cuba suggested moving para 12 into the subsection on state and human responsibility.

Cuba said this para seems to restrict accountability to humans, but states and other entities can be accountable. Thus the para could say: “Humans not machines should at all times be accountable in connection with AWS under applicable IL.” This is not only about the final decision about use of force, but accountability also holds throughout the lifecycle of a WS—i.e. if you develop a system that discriminate based on race, that means a norm of IL is being violated way before the decision to use force is taken. Thus the para could also say: “a violation of a norm of applicable international law always leads to accountability by states and humans.”

Switzerland suggested adding a reference that individuals can be responsible for war crimes.

Chile said this para is confusion, noting that individuals are accountable for their grave violations of IHL and ICL, not with regards to any decision on the use of force. However, it's the obligation of states to ensure that within the domestic system and through international tribunals that they are accountable for such violations, but this is not clear in this para.

Paragraph 13

Current text: *Accountability for the development, deployment and use of autonomous weapons systems, including through the operation of such systems within a responsible chain of human command and control remains with States.*

Switzerland says this para seems to reduce accountability to the state, but GP(d) was broader and applied to all parties to a conflict.

NZ said it is not sure about the accuracy of this para and suggested framing it as: “States must ensure they remain responsible and accountable for...”

Russia asked to revert to the language of GP(d). Cuba, Israel, Japan, ROK, and US agreed.

Chile noted that while GP(d) requires a “responsible chain of command and control,” it leaves unaddressed what constitute such a chain. These systems usually involve a variety of human agents—engineers, weaponeers, legal advisors, commanders—acting in combination as agents of the state. It would be beneficial if states could elaborate who their responsible agents are and what should be demanded of them to ensure the state's obligations under IHL.

Paragraph 14

Current text: *States must ensure accountability for any wrongful act involving any weapon system used by the State's forces in armed conflict in accordance with applicable international law, in particular international humanitarian law.*

Palestine said the key aspect of accountability is missing, which is ability of victims to access the right to effective remedy. Thus it proposed deleting

“in particular IHL” to reflect that states also have obligations under IHRL and ICL in situations of armed conflict, and then adding “including by bringing perpetrators to justice and upholding the rights of victims to an effective remedy.” Panama agreed.

UK cautioned against the use of the words “any wrongful act,” arguing this is usually in the context of state responsibility, while this paragraph is more about individuals. Switzerland agreed.

Cuba said that, in its legal system the state can be accountable for wrongful and illicit acts. It suggested removing the reference to “wrongful act” and using “any action or omission” instead. Palestine agreed.

NZ suggested that to better echo IHL and state responsibility, this para should refer more broadly to any force attributable to a state, not just their own armed forces. Cuba and Palestine agreed, with Palestine noting that private security companies must also be held accountable.

India said the current wording widens what was agreed in 16c of the 2017 GGE report and the way it is formulated isn’t specific enough to LAWS. It noted the phrase “lethal action” was included in the 2017 report, and suggested it be brought back. Israel and Russia agreed.

US said reverting to 16c is a good idea and also recommended inserting the phrase “...provide mechanisms to ensure accountability...”.

Chile said this para is related to para 8. It suggested redrafting it to read: “In order to comply with the obligations that states must prosecute and punish any grave violations of IHL and crimes under IL, states should ensure that there are means to conduct effective investigations, prosecutions, and punishment for incurred during the use of AWS so as to ensure state and individual responsibilities and prevent an accountability gap.”

Paragraph 15

Current text: *States must ensure that algorithm-based programming do not rely on data sets that can perpetuate or amplify social biases, including gender*

and racial bias, and that can thus have implications for compliance with international law.

Palestine said the new formulation on algorithmic bias, as opposed that contained in the earlier version, is unsatisfactory. By asking states to ensure that they do not rely on data sets that can perpetuate or amplify social biases, it is asking them to do the impossible. The point that must be made is that data sets used by machine-learning algorithms inherently have biases and this cannot be averted, as explained by AI researchers, who have found that bias cannot be solved by diversifying datasets alone. Data will always be classified based on different reference points, depending on who the designer is. There is no such thing as an objective algorithm. Palestine therefore called for a reinsertion of original version of the para.

Panama agreed and stressed that AI systems are based on very large databases that contain information that has been compiled and exchanged using different methods, some of which are opaque, and carry with them both values and prejudices. It highlighted a GGE side event on this issue, that explained that AI that includes automatic profile establishment imitates and reproduces gender and racial biases, and can also include intentionally manipulated data. Certain groups of people are a risk of this, as is clear through law enforcement use of biometrics. The issue of bias is relevant for IHRL, IHL, and other IL. Panama thus urged strengthening this para by using language from the earlier version.

UK said the parameters of operation are also biases, and thus suggested adding the word “unintentional” ahead of “social biases,” to allow for fact that programming itself involves programming a parameter of operation.

India suggested using “consideration must be given to” rather than “must ensure”.

Russia suggested deleting this para, saying it doesn’t understand the ideas here.

Japan said it is hesitant about this para’s implications, noting that it doesn’t deny the relevance of the questions posed by biases but

arguing it needs further consideration about these biases would materialise.

Cuba suggested adding a reference that the state “should ensure that any person under its jurisdiction that develops algorithm-based programming...” Cuba also raised the concern that biases also may not be introduced by an individual but be incorporated through machine-learning processes.

US prefers to omit this paragraph, arguing it does not refer to WS, just programming more generally, which is less relevant to GGE work or the concept of accountability, which this section is about.

Ireland strongly recommended keeping this critical para though it may provide some drafting comments in writing. Supporting Panama’s comments, Ireland also noted there is enormous amount of literature on this that articulates how the functionality may not always be what the designer intended because of bias, and this leads to failures that would be even more pronounced in a military setting. Ireland also noted that acknowledging the origins of bias addresses the falsehood that technology is neutral; rather, technology reflects human values of its human designers. Putting this into the paper reminds us of our responsibility, and our ability, to shape technologies we design and choose to deploy. Austria and Chile agreed.

Chile said algorithmic bias is not an issue of state or individual responsibility. It is a generalised phenomenon that occurs when an algorithm produces results that are systematically prejudiced due to erroneous assumptions in the machine-learning process. Therefore, it cannot be relegated to an issue of attribution of accountability. The para should be included in section on HMI but it should not be deleted.

Austria said bias should be reflected in recommendations. It noted that Russia’s presentation showed what happens when you give a machine learning system with false or erroneous data. The idea that this topic has not been discussed in detail cannot be supported, as there have been a lot of data, reports, and presentations. Austria noted that gender bias will likely lead to misidentification of women and as the machines

are self-learning, the bias will only increase over time.

Paragraph 16

Current text: *The following general practices help ensure accountability in military operations, including operations involving the use of emerging technologies in the area of lethal autonomous weapons systems:*

(a) *Conducting operations under a responsible chain of command and control.*

(b) *Subjecting members of the armed forces to a system of military law and discipline.*

(c) *Establishing and using procedures for the reporting of incidents involving potential violations.*

(d) *Conducting assessments, investigations, or other reviews of incidents involving any potential wrongful acts.*

Regarding 16a, NZ said it is not sure how describing “Conducting operations under a responsible chain of human command and control” as a general practice that helps ensure accountability fits with the way that the responsible chain of human command and control has been used earlier in the document, e.g. in para 4.

India said this para appears selective and requires further elaboration. US agreed. Russia also agreed and argued it is premature to suggest good practices.

Israel suggested adding “on a national level” after “general practices”.

Paragraph 17

Current text: *The following practices with respect to the use of weapons systems, including those based on emerging technologies in the area of lethal autonomous weapons systems, can help ensure accountability in military operations:*

(a) *Rigorous testing of and training on the weapon system, so commanders and operators understand the likely effects of employing the weapon system.*

(b) Establishing procedure and doctrine applicable to the use of the weapon system, which provide standards and limits for commanders and operators on responsible use and under which they can be held accountable under the State's domestic law.

(c) Using the weapon system in accordance with established training, doctrine, and procedures and refraining from unauthorized uses or modifications of the weapon system.

In relation to 17a, NZ suggested removing the reference to the likely effects of employing the WS, as the word likely qualifies an arguably lowest threshold of operators and commanders should be held to know about the WS.

India said this para appears selective and requires further elaboration. US agreed. Russia also agreed and argued it is premature to suggest good practices.

ROK said it supports this para but suggested changing the word “ensure” to “enhance” or something less strong. US agreed.

In relation to 17b, US suggested using “rules” in addition to “limits” because this would encompass all of the types of guidance given to commanders.

Israel suggested adding “national” before “practices” and said this para should focus on LAWS in line with mandate. It called for the deletion of “including those” in the chapeau and replacing “AWS” with “LAWS” throughout.

Implications

Many delegations offered overall comments on this subsection, with a few calling for its deletion because it contains “new commitments” that do not have consensus, and most arguing that this subsection is crucial to advance the concrete outcomes of the GGE.

ICRC said it welcomes the general approach in this subsection, particularly the recognition that certain types of AWS are already prohibited by existing IHL; that certain types should be explicitly ruled out; and that other types should be regulated. In ICRC's view, regulations imply that AWS whose effects

cannot be sufficiently understood, explained, or predicted should be ruled out; as well as those targeting humans.

India said it is confounded by this subsection, which is predicated on a categorisation of AWS that does not have consensus. It called for the deletion of this subsection.

Russia also called for the subsection's deletion, arguing that it looks akin to a legally binding norm, which is outside the mandate of the GGE's work, and contains notions and concepts that have been refuted by Russia and that will not meet consensus.

Turkey said that since there is not agreement on negotiating an LBI, this subsection should be deleted. Israel also called for deleting the entire subsection.

Australia suggested deleting the subtitle “implications”.

France suggested using the word “lethal” throughout this subsection. France also suggested adding an additional paragraph to specify that states will not use “partially autonomous weapon systems except in situations where they are compatible with IL,” that they will be carrying out legal reviews throughout the WS lifecycle, that they will not use them intentionally against civilians, and that they will take all necessary precautions to reduce the damage that these weapons can cause to civilians.

Japan proposed reducing this subsection to two paras:

- “International law, including the Charter of the United Nations, international humanitarian law, international human rights law and international criminal law applies fully to all weapons systems, including the development and use of emerging technologies in the area of lethal autonomous weapons systems.”
- “Potential use of emerging technologies in the area of lethal autonomous weapons systems must be conducted in accordance with applicable international law, in particular international humanitarian law and its requirements and principles, including

inter alia distinction, proportionality and precautions in attack. Such requirements must be applied through a chain of responsible command and control by the human operators and commanders.”

Australia thanked Japan for this proposal.

Argentina said it cannot support any wording that would begin with “the use of AWS,” arguing that the document to contain a para confirming that AWS can and should be used goes against what the GGE is supposed to be doing.

The Chair said he disagrees with those who said that this section presents new legal rules, arguing they could become that, but could also be policy recommendations or political commitments.

Austria asked those delegations calling for deleting what exactly the problems are with the paras, arguing that after so many years the GGE needs to produce tangible outcomes.

Switzerland said this subsection corresponds with the GGE’s mandate and helps operationalise some of the concepts agreed by consensus, thus it would be remiss to delete it. It’s important for articulating that AWS not used in line with IHL should be prohibited, and other AWS should be in conformity in IHL. Philippines and Uruguay agreed.

Since paras 18–20 are important to clarify the NOF, Switzerland suggested regrouping them into one para, stipulating that all AWS system that can’t meet requirements of IHL should never be used.

Netherlands argued these paras can be interpreted as new commitments, which is why some states have argued for its deletion, and suggested the problem might be the form rather than the content.

Australia said the elements in this subsection do read as political undertakings and it is not in a position to support commitments predicated on a set of definitions without consensus.

ROK said implications is other side of same coin as characterisations, and since there is still no common understanding of characteristics of AWS, this subsection is premature.

Uruguay said the implications section should remain in the document, and should be called commitments.

Philippines noted this section has already been watered down from the earlier iteration and the title was changed from general commitments to possible considerations. This is the heart of the paper and should not be watered down further. Philippines argued that while some delegations are concerned that this subsection goes beyond what’s required by IHL, this is precisely its purpose, consistent with the mandate of the GGE and the objective of the CCW.

Argentina, Costa Rica, Ecuador, El Salvador, Palestine, Panama, Peru, Philippines, Sierra Leone, and Uruguay jointly suggested changing the title of this subsection to “general commitments”.

Chile said the title “implications” is unclear but after the Chair’s clarification, it does seem to convey the message that this is about a set of specific rules clarifying aspects of IHL when applied to AWS.

Austria said the title is an issue, as the subsection should be about qualifying the relations between humans and machines.

Panama said this subsection should be a stand-alone section as it is the heart of the GGE’s work regarding the clarification and development of a NOF. Algeria, Ecuador, Chile, Pakistan, Sri Lanka, and CSKR made similar remarks.

Panama said it is concerned that the narrative is being dominated by militarised countries, who are focusing on building more sophisticated arsenals, whereas Panama’s best defence is disarmament and strengthening of IL.

Palestine agreed this subsection contains core elements and if it is deleted the GGE wouldn’t be fulfilling its mandate. Algeria made a similar comment.

Ecuador said progressive development of IL is necessary. Algeria and Peru made similar comments.

Argentina pointed out that having a document that recognises risks of AWS but does not have a section mentioning commitments to prevent and mitigate those risks turns this into sterile exercise.

CSKR noted that in the implications and characterisations sections, the paper recognises that certain WS should be considered unacceptable. This should be made more clear and prohibitions should apply to two categories: WS that can't be used with meaningful human control (MHC); and WS that target humans directly. AWS that are not explicitly prohibited must still be regulated to maintain MHC. The content throughout this section provides useful parameters for these regulations, but it needs to be made clear that this content provides positive obligations on states to maintain MHC over WS.

Paragraph 18

Current text: *Not to develop, produce, acquire, possess, deploy or use fully autonomous weapons systems.*

US called for this para's deletion.

Switzerland said this para is linked to the subsection on characterisation. It supports the idea that all AWS should be part of a reasonable command chain under HC, any AWS operating outside of command chain wouldn't be predictable or ensure respect for IHL.

Netherlands said its position on this para is dependent on its understanding of fully lethal autonomous weapon system (FLAWS), which it understands as WS functioning without MHC and that can't be used in conformity to IHL.

Argentina, Costa Rica, Ecuador, El Salvador, Palestine, Panama, Peru, Philippines, Sierra Leone, and Uruguay jointly suggested the para say: "Not to develop, produce, acquire, possess, deploy or use autonomous weapons systems that cross the threshold of MHC," and to add: "Not to develop, produce, acquire, possess, deploy or use AWS that specifically target humans."

Chile said there is still no agreement on definition of FLAWS and partially lethal autonomous weapon

systems (PLAWS) so it is difficult to envisage the para as drafted.

Austria noted the concerns about the use of "fully" AWS and suggested saying, "AWS that are not under MHC or sufficient HC."

Cuba said it is concerned by the reaction of certain delegations to this para, which is a minimum common understanding in the GGE.

Paragraph 19

Current text: *Not to use any type of autonomous weapons system if it is of a nature to cause superfluous injury or unnecessary suffering, or if it is by nature indiscriminate, or is otherwise incapable of being used in accordance with the rules and principles of international humanitarian law.*

NZ said if an AWS is by nature going to cause superfluous injury, etc., then it should not be allowed to develop, produce, acquire, possess, and use it, not simply to not use it.

France called for this para's deletion.

US suggested moving this para to the IHL subsection. US also suggested reverting to 17h from the 2019 GGE report, but if the agreed language is changed, then it should "any weapon system including those based on emerging technologies (ET) in the area of LAWS." Israel agreed.

Netherlands argued these requirements are well established and apply irrespective of WS. This para could be interpreted as a new undertaking if applied to WS.

Australia said it could accept this para but argued it is not necessary to restate what we already consider international legal obligations.

Argentina, Costa Rica, Ecuador, El Salvador, Palestine, Panama, Peru, Philippines, Sierra Leone, and Uruguay jointly suggested adding "and applicable IL" instead of IHL.

Chile said there would be merit in explicitly noting that this para restates existing IHL obligations.

Austria said if this para is going to repeat existing obligations it must state them in the correct way, which is that such weapons are already prohibited.

Paragraph 20

Current text: *Not to use any type of autonomous weapons system that cannot perform their functions in accordance with the intention of a human operator and commander to comply with rules and principles of international humanitarian law, including inter alia the principles of distinction, proportionality and precautions in attack.*

NZ said it's not clear how this para is different from para 19. It combines two ideas—that the machine must comply with IHL and the necessity of functionality under human operator. Both are necessary but are an awkward combination. NZ asked if there is a meaningful difference between a system that cannot perform in accordance with an intention to comply with IHL and system that is otherwise incapable of being used in accordance with the principles and rules of IHL. NZ said this para should focus on not using a system that can't comply with the intent of a human operator and commander within the bounds of IHL.

France called for this para's deletion.

US suggested moving this para to the IHL subsection. US also suggested replacing "AWS" with "WS based on ET in area of LAWS" and change "in accordance with" to "be consistent with".

Netherlands argued these requirements are well established but could be interpreted as a new undertaking if applied to WS.

Chile said there would be merit in explicitly noting that this para restates existing IHL obligations.

Paragraph 21

Current text: *To maintain sufficient human control over partially autonomous weapons, to ensure conformity with international humanitarian law and to satisfy ethical considerations, the use of such weapons should be regulated through measures such as:*

(a) Limits on the types of target, such as constraining them to objects that are military objectives by nature;

(b) Limits on the duration, geographical scope and scale of use, including to enable human judgement and control in relation to a specific attack;

(c) Requirements for human-machine interaction and timely intervention and deactivation.

ICRC said limits on use enable those who plan or decide on an attack to be able to apply rules; it recommended limiting use to situations or places where civilians and objects are not present.

France called for the deletion of 21a, arguing the reference to limits on the types of targets and objects that are military objectives by nature does not enjoy consensus.

France argued that 21c should specify that human intervention or deactivation of a system is not a general imperative criterion to ensure that such systems are in conformity with IHL. This can only be achieved if a state that developed and used such a system has chosen to make this technically feasible.

US called for the delete on of para 21 as a whole, arguing that "sufficient HC" is not a distinct objective, nor is the US convinced of the need for new regulations. It agrees with elaborating more precautions in the IHL section, but because mitigation measures and precautions are context specific, they do not always apply and need to be assessed on a case-by-case basis.

Switzerland said this para has important elements to guarantee that AWS that aren't prohibited by IHL will always be used in conformity with IHL. Switzerland is flexible about the language in the chapeau regarding notion of sufficient HC, noting other formulations like necessary degree of HC or human involvement are also acceptable. The chapeau should highlight that HC applies to deployment, section and engagement of targets, and greater use of WS.

Switzerland said 21a is too limiting as other targets could be legitimate targets because of where they are or what they are used for.

Netherlands says this para refers to important concepts but further work is necessary. It said HC or MHC is not end in itself but rather means to ensure IHL compliance; necessary type of HC is context specific and depends on type of WS, which should be better reflect in this text. Thus, the term “regulated” in the chapeau isn’t the right term. It should instead identify a set of principles of HC, applicable in all circumstances, and specific measures that will depend on type of weapon and context in which it’s deployed, that should be translated into doctrines to ensure IHL compliance.

Netherlands said 21a sets unrealistic limits and called for its deletion. UK agreed with Netherlands that HC isn’t end in itself but means of IHL compliance. UK said the limits described in 21 the are examples of control measures, which would sit more comfortably in risk mitigation.

Australia supported Netherlands’ and UK’s comments, in particular that “regulated” isn’t the appropriate term, and that control measures must be tailored to particular situation. Philippines welcomed Netherlands’ comments that MHC is a tool to ensure IHL compliance and that its context specific. This reflects the Philippines’ position that what should be prohibited and regulated depends on the degree of MHC.

Argentina, Costa Rica, Ecuador, El Salvador, Palestine, Panama, Peru, Philippines, Sierra Leone, and Uruguay jointly suggested replacing sufficient with “meaningful” and deleting “partially”. Ecuador suggested “significant” rather than “sufficient” HC.

Brazil, Chile, and Mexico jointly welcomed para 21, recognising its intention to establish regulatory measures. Chile called on states to commit to the following measures in this context:

- Not to develop AWS that can’t be controlled by humans;
- Not to develop or use an AWS whose programming might remove HC over critical functions (CF) related to use of force;
- To not develop nor use AWS whose effects can’t be sufficiently understood, predicted, or explained; and
- Not to use WS precluding attribution of state and individual legal responsibility for consequences of their use.

Chile also said states should also commit to positive obligations, including:

- To ensure humans exercise control in use of AWS in line with IHL obligations and ethical requirements, including: ensuring that MHC is exercised over CF of AWS of target selection and application of force throughout development and use of weapon; while recognizing that the nature and degree may vary during all or different stages, of WS’ development and use;
- To ensure a human agent shall first be certain there are adequate environmental limits in place (including spatial and temporal), and be aware and approve any decisions on determining the context through a sufficient level of situational awareness;
- To ascertain the reliability and predictability in identification and selection and engagement of targets;
- To take precautions during conduct of operations to ensure that the WS isn’t able to change the mission parameters without human validation;
- To allow for constant supervision and ensure intervention to interrupt, adjust, or deactivate the WS during the operation phase or verify that auto deactivation functions as intended in legal assessment by user;
- To ensure responsibility of commanders and operators to comply with obligations for the deployment and use of WS.

Austria says it doesn’t understand the concern that this para would introduce additional obligations. Austria doesn’t see any new obligations, even though it would have liked that.

Cuba said 21c should include language about the mechanism of de-activation, as AWS need to have a viable option for deactivation and a fail-safe mechanism for security.

SECTION 3: HUMAN MACHINE-INTERACTION

Ray Acheson | Women's International League for Peace and Freedom

Section 3 of the [Chair's revised draft paper](#) explores various forms of human-machine interaction (HMI), and sets out the relationship between this concept and human control (HC). It also outlines the phases of a weapon's lifecycle that need to be subject to HC and sets out requirements for "sufficient" HC. It also calls for sharing good practices on HMI.

While consensus exists that some form of HC must always be retained over weapon systems (WS), divergence remains about what HC is, or how and when it applies. Most delegations continued calling for meaningful human control (MHC) to apply throughout a WS' entire lifecycle, and are specific about what they view as MHC and how it relates to ensuring compliance with international law. A few states continue to prefer a vague approach to HC, in which the parameters and evaluation are left up to individual states.

Overarching comments on section 3 and on HC

Algeria, Austria, Brazil, Chile, Cuba, Mexico, Switzerland, and United Kingdom (UK) said HC needs to apply throughout a weapon systems' (WS) lifecycle.

UK said the importance of human role is key for common ground, but there is no one size fits all for HC. UK said HC should be framed by need to comply with IHL, for which militaries should best combine humans and technology and take a "flexible" approach based on context. Australia agreed.

Austria agreed HC is dynamic concept, and argued HC shouldn't be characterised in a way that means direct human intervention is required at all times and in real time; it's about how it is exercised in critical functions (CF).

Switzerland said HC is important to ensure legal compliance but also for ethical and operational, practical, and military reasons. Agrees HC is context-dependent.

Cuba highlighted the relationship between HC and responsibility, noting that this also applies to the development of WS and after the use of a WS.

Algeria suggested referring to research about and real-world experiences with HMI.

Japan reiterated its position that AWS should enable commanders and operators to comply with international humanitarian law (IHL) by avoiding unintended attacks and minimising harm to civilians and civilian objects, and that it is important to ensure that commanders and operators are fully aware of, and sufficiently trained in, the relevant technologies and IHL.

Russia said it is essential to maintain HC over WS but the form of control must be at the discretion of states.

Russia and India called for use of term "emerging technologies in the area of LAWS" in this section.

Brazil, Chile, and Mexico jointly welcomed this section, including the approach of presenting a scenario of human involvement, and then specific term of HC.

France said maintaining HC could be understood in a general way as the degree of interaction between humans and machines, determined on a case-by-case basis. HMI can take on different forms: technical safeguards, procedural aspects, policy and doctrine to guarantee that future WS and technologies. will be in line with IHL.

Bulgaria said HC is to be context dependent, hinging on the complexities of the operational environment, the intricate nature of system, and the intended use and task to be executed. This requires exhaustive evaluation of the conflict environment and military objectives, subordination of machine, and risk mitigation measures, which demand rigorous training of commanders and operators.

Netherlands agreed with others that HC is context dependent and that HC is not an end in itself. MHC is distributed and exercised across different processes and various command levels. It argued that the introduction of a weapon with autonomous functions doesn't negate the human element throughout targeting processes but modifies the way to determine WS are used in compliance with IHL.

The **Campaign to Stop Killer Robots** said a range of factors should be considered in relation to HMI, including the operational context, and the characteristics and capabilities of the WS as a whole. It is crucial that the human user has effective mechanisms to intervene with and operate the system's functioning as required in the specific circumstances of its use to ensure overall MHC and compliance with existing laws. It also said that whether or not MHC can be exercised will be context-based, dynamic, multidimensional, and situation-dependent, and argued that regulations on AWS should clarify how MHC should be assessed on a case-by-case basis.

Paragraph 1

Current text: *Human-machine interaction, which may take various forms and be implemented at various stages of the life cycle of a weapon, should ensure that the potential use of autonomous weapons systems is in compliance with applicable international law, in particular international humanitarian law. In determining the quality and extent of human-machine interaction, a range of factors should be considered, including the operational context, and the characteristics and capabilities of the weapons system as a whole.*

India suggested reverting to GPc. Israel agreed.

Netherlands noted that the Group of Governmental Experts (GGE) has had two years to discuss HMI and HC since GPc was adopted.

Paragraph 2

Current text: *Human control over the use of autonomous weapons systems can be exercised in various ways across the life-cycle of these weapon systems and through human-machine interaction.*

Russia suggested reverting to the language from para 21 of the 2019 GGE report. India and Israel agreed.

Brazil, Chile, and Mexico jointly said there is confusion here between HC and HMI. HMI is type of human involvement, not an example of HC. HMI elicits what HC would be needed, e.g. ability of human operator to abort or suspend an attack, but doesn't provide a complete picture of HC.

France suggested deleting this para or merging it with para 1.

Paragraph 3

Current text: *The phases of the life-cycle of a weapon system include: political direction in the pre-development phase; research and development; testing, evaluation and certification; deployment, training, command and control; use and abort; post-use assessment; decommissioning.*

Switzerland welcomed para 3 and noted that irrespective of such check points, HC is key when deploying or using WS and humans should maintain ability to intervene as long as possible and reasonable.

New Zealand (NZ) asked for clarification about the meaning of "political direction in pre-development phase."

Russia said while it is not against the idea of defining phases of a WS' lifecycle it wants to hear how states would subdivide these phases. In the meantime, it called for the para's deletion.

India said this para is based on the sunrise diagram, which doesn't serve any specific purpose in the context of HMI; it called for the para's deletion.

Brazil, Chile, and Mexico jointly argued this para is not clear, noting the difference between the concept of HC, which is a singular condition for the use of WS, and concept of command and control, which is an exercise over assigned resources in completion of a military goal. They also said it would be useful for this para to add how HC relates to the development and use of AWS.

France said this para is justified to better reflect what lifecycle represents, but suggested modifying the order: start with policy decisions as to types of weapons one decides upon, move on to research and development, testing, evaluation, and certification, adoption of system, training, deployment, evaluation of its use, and at end, decommissioning.

Israel argued that the word “decommissioning” strays from previously agreed language. It suggested adding “may” before the word “include,” since the timing or relevance of decommissioning may vary greatly between different weapons.

Paragraph 4

Current text: *As referred to in Section 2, paragraph 21 above, sufficient human control requires that:*

- a) Humans make informed decisions about the deployment and use of weapons.*
- b) Humans have sufficient information to ensure that force is used in accordance with international law, given what they know about the potential target, the capabilities and characteristics of the weapon to be used, and the operational context in which the weapon is deployed.*
- c) The weapon is tested in a realistic operational environment, and humans are properly trained, to ensure that the weapon is deployed in a lawful manner.*

NZ noted that the phrase “given what they know about the potential target seems to imply a caveat on sufficient information, and suggested it could be tweaked by rephrasing as: “including information about a potential target”.

Japan argued para 4b’s use of “sufficient” is subjective and called for its deletion. Australia agreed.

Russia argued MHC is subjective and its use would create ambiguity; it called for the para’s deletion.

India said this is an area for further work and should be deleted.

Australia suggested instead of “HC requires that,” it should state “HC may include”.

Brazil, Chile, and Mexico jointly called for the addition of language in para 4b that recognises that for the use of force to be in accordance with IL, it should be humans making qualitative judgements to ensure respect of IHL principles of distinction, proportionality, and precaution in attack and prevention of unnecessary harm to civilians. Considering specificities of control and automation, one crucial aspect is that human commanders and operators not only have sufficient information but also need to have necessary time to appraise such information, bearing in mind compliance with IHL. It proposed a new para: “Humans are able to appraise system information within a reasonable amount of time before approving the system’s deployment or use of force.”

Brazil, Chile, and Mexico jointly also said it is necessary to contextualise criteria of sufficient HC in WS with autonomous functions and proposed a new para: “Humans should be able to understand and explain what the system should do and how it will be done.”

Brazil, Chile, and Mexico jointly highlighted the uncertainty of interaction of WS with autonomous functions with different systems with similar characteristics. They suggested a new para: “Humans must understand the functioning of the autonomous weapon systems when it interacts with other AWS or autonomous technology. If system acts in unpredicted manner, the human must be able to dis-engage the system.”

Brazil, Chile, and Mexico jointly said 4c is unclear and they would prefer this para just to refer to the need for operators to be properly trained.

Brazil, Chile, and Mexico called for use of the term meaningful human control (MHC) instead of “sufficient”. They argued an AWS cannot be programmed to observe IHL principles, since 1) such principles cannot be adequately converted in programming language, and might not be upheld in certain conditions; and 2) use of force without any MHC whatsoever should be considered a blatant violation to ethical standards underpinning IHL and other norms related to regulation of hostilities.

Philippines also called for change from sufficient to MHC and read from its [joint response to the Chair's guiding questions](#) to outline suggested parameters for MHC.

Philippines noted that para 4 cross-references section 2, para 21, but gives a different list of elements of HC. Philippines suggested adding: "In addition to regulations laid out in section 2, para 21, MHC, requires that, inter alia..."

Philippines said the component of judgement is reflected in para 4 but the component of intervention is not. It suggested an additional para: "Humans are able to exercise supervision, timely intervention, and deactivation of a weapon system."

Netherlands said it is pleased that its proposals on minimum levels of HMI or HC are reflected in para 4, but noted that states that are arguing against now were in favour of it in August, as they say it should be up to states to determine what HC is. It suggested deleting the word "requires" to alleviate concerns.

Israel suggested deleting the reference to section 2, para 21 in the chapeau of para 4, as Israel requested that para's deletion. Israel also suggested replacing "sufficient HC" either with "HMI", or "appropriate human involvement". It called for the addition of the words "with regards to LAWS" at the end of the chapeau.

In 4b, Israel suggested replacing "that force is used" with "that LAWS are used," and suggested changing "target" to "targets" since weapons can be used against more than one target.

In 4c, Israel suggested changing "tested in a realistic operational environment" to "properly tested," as the reference to a realistic environment may imply that WS may be experimented in the field before authorisation.

Israel suggested adding another sub para, based on 23f of the 2019 GGE report, that "to the extent possible and feasible, humans should intervene to ensure IHL compliance."

Paragraph 5

Current text: *Identify good practices for human-machine interaction, including such practices identified in academic research or developed in industry, that can be shared on a voluntary basis to strengthen compliance with international humanitarian law when using autonomous weapons systems.*

NZ suggested redrafting to better reflect that it isn't sharing of best practices that can contribute to compliance, but the implementation of those practices.

UK said sharing and collating good practice could be an important and actionable outcome of the GGE and would generate a useful resource above and beyond already achieved consensus.

Russia said efforts shouldn't be focus on identification of good practice but on voluntary exchanges of such practices. It suggested language including: "To further such practices identified in academic research or developed in industry, that can be shared on a voluntary basis to strengthen compliance with international humanitarian law when using weapons systems based on new technologies in the area of LAWS."

India called for the use of the word "lethal" and in last sentence, to replace "when using AWS" with "potential use of LAWS."

Australia suggested adding "it would be beneficial to" identify good practices. It would like to discuss further the phrase "identified in academic research or developed in industry."

Bulgaria appreciated para 5.

Israel suggested adding "potentially" before "including such practices".

SECTION 4: WEAPON REVIEWS

Allison Pytlak | Women's International League for Peace and Freedom

Section 4 of the [Chair's revised draft paper](#) is about weapons reviews, sometime referred to as legal reviews or national weapon reviews (WRs). International law—in particular, article 36 of the 1977 Additional Protocol (AP) I to the 1949 Geneva Conventions—creates an obligation on states to determine whether “in the study, development, acquisition or adoption of a new weapon, means or method of warfare” its use would “in some or all circumstances be prohibited by international law.” Such national WRs have been an aspect of the GGE's discussion on autonomous weapon systems (AWS) since the outset, with some states having indicated in past meetings that national legal WRs are sufficient to address the moral, ethical, and legal concerns about autonomous weapons. Others have argued WRs are not sufficient, especially because standards will differ among states at the national level without an international agreement on AWS.

This section has received several edits in the revised version of the Chair's paper, which add in new clauses and language. There are also several new sub-paragraphs included in paragraph 4.

Overarching comments on section 4

China sees the review of new weapons as beneficial to preventing the abuse of new weapon systems and for reducing casualties among civilians. It noted that many countries have already set up such review mechanisms and that WRs are an obligation for those states that are party to AP I. China noted that the AP I does not provide for a unified procedure, which means that among states, reviews are unverifiable and cannot resolve the humanitarian concerns posed by autonomous weapon systems (AWS), a point that Argentina, on behalf of the informal Group of 10, agreed with. China said this is why states should work to reach consensus on a definition of AWS and develop a protocol within the framework of the CCW.

Some states felt that the detail contained in sub-paragraphs 4(a)–(h) are too specific. India

described this as an overly prescriptive approach and suggested deleting them. China said these details of WRs should be determined by states themselves.

France however felt that section 4 correctly reflects well the Guiding Principles (GPs) under which states, in line with their international obligations, determine if new weapons, or means or methods of war, are prohibited by applicable international humanitarian law (IHL). It felt that the procedure presented in this section is enough to ensure comprehensive legal WRs and found that this list is indicative and not exhaustive. France reiterated that and that the overall approach to WRs remains in the hands of states.

France, Australia, Switzerland, Bulgaria, and Canada welcomed section 4. Switzerland highlighted that WRs are a very important element especially in relation to human control, and that attention be given to the particular challenges related to growing autonomy in weapons. It feels that this paragraph contributes by giving specificity to the approaches for implementing the GPs, especially GP(e). New Zealand welcomed this section but felt it is too long.

Australia suggested replacing “legal review” with “weapons review” throughout. Australia also felt that it could be made less prescriptive by replacing “should” with “may” throughout.

Austria said that WRs are an important implementation tool, relevant for all weapons. Yet, emerging technologies pose specific challenges to WRs, especially technology that has self-development capabilities. It said that for the GGE to add value to WRs and give them a prominent place in its work, then it needs to include elements that are directly relevant to emerging technologies.

Austria, like others, reiterated that WRs are national and that the past five years demonstrate the lack of legal clarity among delegations on this issue. In the absence of specific binding

international rules, there is a risk of different national interpretations. The section on WRs must be balanced with the need for new standards.

The informal group of 10 (Argentina, Costa Rica, Ecuador, El Salvador, Palestine, Panama, Peru, Philippines, Sierra Leone, and Uruguay) elaborated on the problems posed by national processes that have no common or universal standardisation, in that one country can use a weapon that, for other countries, violates IHL but does not do so per its own standards. The group feels that the section on WRs is necessary but that review in itself cannot guarantee that standards of IHL and ethics are always accounted for. Peru and Philippines made similar points in their national capacities.

The Philippines further elaborated that all weapon systems pose ethical concerns but that these are infinitely more pronounced in AWS. While reviews are important, they should not—in the context of the GGE's mandate—take the same level of prominence as the need for prohibition. WRs are not an end in themselves, but a tool to identify prohibitions and regulations as needed. There must be an international standard, said the Philippines. While it feels that it is premature to negotiate the specificities of these standards now, an appropriate time would be during the negotiation of a legally binding instrument on AWS.

The Philippines also suggested injecting transparency into this section, pointing to earlier statements it has made about a lack of transparency leading to arms racing.

Bulgaria sees WRs as an essential area of growing convergence. It suggested a more comprehensive discussion on reviews as valuable for the work of the GGE. Canada feels this is an area to focus on in future work.

The Campaign to Stop Killer Robots noted that section 4 (and 5) contains “little meaningful guidance, endorse unhelpful political narratives regarding terrorism in what should be a legal context, and they risk treating legal obligations as merely policy suggestions.” It said that overall these two sections are “out of balance” to the level of consideration given to the challenges posed by AWS.

Paragraph 1

Current text: *In accordance with States' obligations under international law, in the study, development, acquisition, or adoption of a new weapon, means or method of warfare, determination must be made whether its employment would, in some or all circumstances, be prohibited by international law.*

India said this section is acceptable, noting it is based on GP(e).

Russia suggested bringing this paragraph more fully in line with article 36 by adding the word “applicable” before “international law”.

Paragraph 2

Current text: *All States that have not yet done so are encouraged to consider joining Additional Protocol I to the Geneva Conventions of 12 August 1949.*

India and Israel would seek deletion of this paragraph, stating that this is not the forum or place to make this call. Turkey said it cannot accept this paragraph.

The United States (US) said that ratification of AP I isn't necessary to conduct WRs and that instead, the document should emphasise the need to conduct robust WRs. It suggested a reformulation: “All states that haven't done so are encouraged to conduct robust WRs.”

Switzerland said it supports this paragraph and that it should also include a general appeal to countries to carry out a WR, whether or not they are party to AP 1. This was supported by Austria. The informal group of 10 also supported this paragraph but would replace “encouraged” by “should”. The group noted that this language has been used during the CCW review conferences and so the GGE should use a similar approach.

Australia would like to see an addition to the end of the sentence: “...or alternatively to consider conducting WRs in line with AP I.”

Bulgaria supports this paragraph and a call for the universalisation of article 36.

Paragraph 3

Current text: *Legal reviews, at the national level, in the study, development, acquisition or adoption of a new weapon, means or method of warfare are a useful tool to assess nationally whether potential weapons systems based on emerging technologies in the area of lethal autonomous weapons systems, including autonomous weapons systems, would be prohibited by any rule of international law applicable to that State in all or some circumstances.*

India noted that this paragraph is based on paragraph 17(i) of the [2019 GGE report](#) but is missing one sentence that should be reinstated. Israel agreed.

Japan observed that this paragraph is based on 23(c) of the [2018 GGE report](#). As such, any reference to “autonomous weapon system” be replaced by “emerging technologies in the area of LAWS,” a point the US made, too, and Israel noted.

The US said it appreciated inclusion of this paragraph. Russia suggested removing the reference to “LAWS” while keeping the rest of the text as it is to fully reproduce 17(i).

The informal group of 10 expressed that since LAWS belong to a set of more general weapons that are autonomous, there is no need for the reference to LAWS in this same paragraph.

New Zealand said it would push for stronger language.

Peru suggested creating a paragraph 3bis: “Weapons reviews must also take into consideration the need to satisfy ethical considerations bearing in mind the specific ethical issues arising from AWS, including inter alia, the possibility of the loss of human dignity (in the process of using force) of human agency (in decisions to use force), and the role of moral responsibility for these decisions.” The Philippines supported this.

Paragraph 4 chapeau

Current text: *The following elements of practice can be applied in the conduct of legal reviews, at the*

national level, in the study, development, acquisition, or adoption of autonomous weapons systems:

India would like to amend this to reflect the mandate of the GGE by adding the words: “weapon systems based on emerging technology in the area of LAWS”. The US made a similar proposal.

Russia observed that the specific procedures of carrying out WRs should be up to states and that the mechanisms for doing so do not need to be spelled out. It suggested deleting the entire paragraph. However, Russia said it would not be against a voluntary exchange about the best practices of holding such reviews.

In place of current paragraph 4, Russia proposed a new paragraph using language from paragraph 17(h) of the GGE’s 2019 report: “A weapons system based on emerging technologies in the area of lethal autonomous weapons systems, must not be used if it is of a nature to cause superfluous injury or unnecessary suffering, or if it is inherently indiscriminate, or is otherwise incapable of being used in accordance with the requirements and principles of IHL.”

New Zealand asked how this paragraph relates to paragraph 3 and would see benefit in merging.

Paragraph 4(a)

Current text: *States should consider key challenges in the regulation and nature of the systems through a regular evaluation process based on a set of criteria relevant for autonomous weapons systems.*

The US and Israel called for this para’s deletion.

Paragraph 4(b)

Current text: *A weapon system under development or modification which significantly changes the use of existing weapons systems, should be reviewed as applicable to ensure compliance with international humanitarian law.*

Japan suggested copying the exact language from paragraph 23(c) of the 2018 GGE report, in which the ordering of “development” and “modification” are reversed, and “should” is replaced by “must”.

Australia observed that this paragraph may be conflating initial review requirements, with re-review requirements. It said that since these are different, and very complex, it would be best to break them down into two paragraphs.

Switzerland felt that it isn't clear what "significantly changes" is referring to.

New Zealand noted that "as applicable" has been added in this version of the Chair's paper and said it was unsure about this.

Paragraph 4(c)

Current text: *New concepts or operational contexts for the employment of existing weapons should be reviewed, when such concepts or operational contexts differ significantly from the authorized uses that were considered when those systems were previously reviewed or that may result in different effects.*

The US suggested deleting "or operational contexts" and adding a new clause "or will be reviewed again". It also suggested deleting "authorised", in the latter case because authorisations are not always made on a legal basis. It would replace it "authorised" with "and approved". Israel suggested a change from "authorised uses" to "uses that the authorisation of the system was based upon."

The US suggested amending or removing "or that may result in different effects," as it feels this is vague. Israel said that "concept" is too vague and should be omitted. Canada also said "concepts" is vague and suggested being more specific.

France proposed replacing "should" with "can". This is because, unlike paragraph 4(b), this paragraph reflects a possibility and not a legal obligation.

Paragraph 4(d)

Current text: *The legal review should consider whether the weapon is of a nature to cause superfluous injury or unnecessary suffering, or if it inherently indiscriminate, or is otherwise incapable of being using in accordance with the requirements and principles of IHL.*

France suggested adding "including with the principles of distinction and proportionality" following "with the requirements of IHL."

New Zealand asked to change "should" to "must" before "consider".

Canada observed that there is a minor difference between the wording of this sub-paragraph and article 36 and noted that not all CCW High Contracting Parties are party to AP 1.

Paragraph 4(e)

Current text: *Analyzing whether a weapon is "inherently indiscriminate," should consider whether the weapon is capable of being used in accordance with the principles of distinction and proportionality.*

France suggested adding "when the weapon cannot be directed at a specific military objective and whether its effects cannot be limited as required by IHL."

Israel observed that this paragraph conflates the principles of distinction and proportionality and that under IHL, only distinction matters in the context of indiscriminate attacks. As such, the reference to proportionality should be deleted. Canada made a similar observation.

Paragraph 4(f)

Current text: *In considering whether a weapon system is consistent with the prohibitions against weapons of a nature to cause superfluous injury or unnecessary suffering or against weapons that are by nature indiscriminate, it may be useful to compare the weapon system to existing weapons systems not falling under these prohibitions.*

The US would like to bring this more fully in line with paragraph 17(h) of the 2019 GGE report, which uses "inherently" in place of "by nature indiscriminate".

France suggested adding "for instance" after "it may be useful".

New Zealand noted the version of this sub-paragraph in the revised Chair's paper has deleted

the reference to “with autonomous features or functions”, and asked if this doesn’t make the sub-paragraph too general.

Paragraph 4(g)

Current text: *In light of the particular challenges of autonomous weapons systems, including potential for self-learning that could introduce a risk of unpredictability, weapons reviews should be conducted with a full understanding of the weapons’ capabilities and limitations, in light of its normal or expected uses and sufficient confidence about its effects in those circumstances.*

The US felt this text would benefit from simplification or deletion. It suggested: “Weapons reviews should be conducted with an appropriate understanding of the weapons capabilities and limitations, its normal and expected uses, and its anticipated effects in those circumstances.” Israel agreed with these comments.

New Zealand feels that the reference to the “risk” of unpredictability downplays the unpredictability factor. It urged making clear the consequences of insufficient predictability.

Paragraph 4(h)

Current text: *Persons conducting the legal review should understand the likely effects of employing the weapon in different operational contexts. Such expectation should be produced through realistic system developmental and operational test and evaluation.*

New Zealand asked what is meant by “such expectation”.

Israel suggested changing “realistic” to “proper”.

Paragraph 5

Current text: *Where feasible and appropriate, interdisciplinary legal, military and ethical perspectives must be integrated in research and development of autonomous weapons systems, including through independent ethics reviews bearing in mind national security considerations and restrictions on commercial proprietary information.*

India and Russia proposed bringing paragraph 5 more in line with paragraph 23(b) of the 2018 GGE report. However, India said it could support further elaboration or development of language but would like to remove “ethical”.

The US acknowledged the intention of this paragraph was to build on paragraph 23(b) of the 2018 GGE report but recommended using the language of the GGE’s mandate.

Australia suggested reformulating this paragraph to make it less prescriptive. It suggested: “Where feasible and appropriate, consideration should be given to the integration of interdisciplinary military, legal, and ethical perspectives into the research and development of AWS and the weapon review process.”

Switzerland said it finds the current version too prescriptive, especially the reference to independent ethics reviews. The way that ethics reviews are taken into account by national processes must be left to states, it said. It would be helpful to make a clear distinction between legal issues and interdisciplinary matters, like ethics. Switzerland suggested placing the current paragraph 5 at the end of the section, so that it would become paragraph 6.

Peru would like to remove “feasible and appropriate” and add a 5bis: “Ensure transparency regarding all aspects of the development and possible acquisition of AWS as well the processes for reviewing these systems, in accordance with international law including the Marten’s Clause”. Austria welcomed the reference to the Marten’s Clause.

Israel would like to revert to the original version of this paragraph (found in the first draft of the Chair’s paper).

Paragraph 6

Current text: *States are encouraged to identify, adopt and implement guidelines and to share, on a voluntary basis, information and good practice on the conduct of legal reviews of autonomous weapon systems.*

India requested adding “bearing in mind national security considerations,” which is contained in paragraph 17(i) of the 2019 GGE report.

The US recommended editing this paragraph to reflect the mandate of the GGE by inserting “emerging technology in the area of LAWS” in place of “autonomous weapon systems”.

Russia suggested a reformulation: “States are encouraged to share on voluntary basis, information and good practice on the conduct of legal reviews of new weapon systems based on emerging technology in the area of LAWS.”

Switzerland praised the fact that information exchange is included here.

Canada welcomed this paragraph and encouraged voluntary exchanges of best practices on WRs. It referred to its past proposal for a compilation of best practices to help move the GGE forward in its work.

Argentina said it supports using good practice but that this GGE should go beyond simply reviewing weapons nationally and establish standardised mechanisms at a universal level, to facilitate national level implementation.

Peru proposed replacing “legal reviews” with “weapons reviews”. It would also add “...with a view to forming international standards on such reviews.”

SECTION 5: RISK MITIGATION

Allison Pytlak | Women’s International League for Peace and Freedom

Section 5 of the **Chair’s revised draft paper** is about risk mitigation. The most significant changes to the text are found in paragraph 5(1) which now contains reference to specific cyber-related risks and paragraph 5(4), in which the word “transfer” has been replaced by “diversion” in this revised version.

There was not a lot of discussion about this section, although there seems to be two broad perspectives on the topic: states that view risk mitigation measures (RMM) as useful and possibly sufficient to control and manage existing risks, and others that expressed concern about relying purely on RMM.

Overarching comments on section 5

France reiterated its view that some technologies can bring substantial operational benefits, as long as RMMs are provided for, including throughout the design phase.

The Campaign to Stop Killer Robots noted that section 5 (and 6) contains “little meaningful guidance, endorse unhelpful political narratives regarding terrorism in what should be a legal

context, and they risk treating legal obligations as merely policy suggestions.” It said that overall these two sections are “out of balance” to the level of consideration given to the challenges posed by autonomous weapons systems.

Venezuela expressed caution about this section, feeling that most risks could best be addressed through a multilateral legally binding instrument (LBI). Similarly, New Zealand said that this paragraph gives the overarching impression that all risks can be mitigated, and it would like to see a chapeau or other addition to make clear that for those systems that are not prohibited, RMMs should be adopted. It noted that the wording overall in this section has become more voluntary and suggestive.

Title

The United States (US) recommended expanding the title to “risk assessment and mitigation measures” to better match what some of the paragraphs include.

Pakistan proposed: “Addressing and alleviating international security concerns”.

Paragraph 1

Current text: *When developing or acquiring emerging technologies in the area of lethal autonomous weapons systems, including autonomous weapons systems, consider physical security, appropriate non-physical safeguards, including cyber-security against hacking or data spoofing, the risk of acquisition by terrorist groups and the risk of proliferation.*

The US would prefer to use the exact language of **Guiding Principle (GP) F**, but said that it could, at a minimum, accept a reference to “new” ahead of “weapons systems. It suggested deleting “including autonomous weapons systems (AWS),” which it said is not a subset of emerging technologies in the area of LAWS. India, China, and Israel also expressed preference for the language of GPf and to add the word “lethal”. India suggested adding the word “new” so that the language would not apply to every emerging technology, and just *new* ones.

The informal group of 10 (Argentina, Costa Rica, Ecuador, El Salvador, Palestine, Panama, Peru, Philippines, Sierra Leone, and Uruguay) suggested rephrasing this opening, saying it is too repetitive.

Pakistan said the paragraph should clarify that states are not being encouraged to get into the business of acquiring AWS.

Paragraph 2 chapeau

Current text: *Risk assessments and mitigation measures should be part of the design, development, testing and deployment cycle of emerging technologies in any weapons systems, including autonomous weapons systems.*

The US suggested deleting “including AWS” for reasons outlined above. China made a similar suggestion.

Israel said to use the exact language of GPg.

Pakistan suggested deleting paragraph 2 because it gives the incorrect impression that RMMs solve all challenges. It said it would like to have a re-drafting of the whole concept.

Paragraph 2(a)

Current text: *The risks, inter alia, of civilian casualties, as well as precautions to help minimize the risk of incidental loss of life, injuries to civilians and damage to civilian objects must be considered. Other types of risks should be considered, as appropriate, including but not limited to the risk of unintended engagements, risk of loss of control of the system, risk of proliferation and risk of acquisition by unauthorized users, including terrorist groups.*

The US noted that this paragraph omits the first clause contained in paragraph 23(a) of the **2019 GGE report**, on which it is based. The US, China, and Australia would prefer to use that language.

Palestine spoke about the disproportionate impact of weapons and weapon testing on people of the global south. It expressed the concern that global south is where AWS will be tested and used, but also stressed that the participation of people from global south countries in the GGE shows that they are not “passive recipients of norms determined by other states” but rather that they pride themselves “on being active norm makers.” On this basis Palestine proposed the addition of a phrase in the second sentence of paragraph 2(a), such that the sentence would read (new text in italics):

(a) Other types of risks should be considered, as appropriate, including but not limited to the risk *of compounding a historical pattern of deployments and testing of experimental technologies in weapons systems in Global South contexts*, the risk of unintended engagements, risk of loss of control of the system, risk of proliferation and risk of acquisition by unauthorized users, including terrorist groups.

Venezuela supported the proposed addition from Palestine, noting the potential for these technologies to be used in the global south is high, where a majority of states would not possess AWS.

India thanked Palestine for bringing in the global south perspective but noted that its own perspectives are a little different. India said that the global south is not monolithic, and asserted that several emerging technologies that might be used in AWS are also useful for developmental

purposes. India cautioned against stigmatising technology and artificial intelligence (AI). Cuba said it is important to contextualise this situation.

Paragraph 2(b)

Current text: Risk mitigation measures can include rigorous testing and evaluation of systems, legal reviews, readily understandable human-machine interfaces and controls, training personnel, establishing doctrine and procedures, and circumscribing weapons use through appropriate rules of engagement.

The US said this paragraph usefully reflects paragraph 23b of the GGE's 2019 report. The US said it continues to think that RMMs can be a fruitful area for potential conclusions. The US referred to past discussions about the benefits versus the risks of autonomy in weapons, but noted that not all states agree with the view that there are benefits. The US suggested adding a 2bis: "RMMs to help minimise risk of incidental loss of life, injuries to civilians, and damage to civilian objects in use of weapon systems based on emerging technologies in the area of LAWS may include: 1) the incorporation of a self-destruction, self-deactivation, or neutralisation mechanisms into munitions and weapon systems; 2) measures to control the types of targets the system can engage; 3) measures to control the duration, scope, and scale of the operation of the weapon system; and 4) measures that enhance control over use of force including in relation to timing, precision, accuracy."

The informal group of 10 suggested replacing "legal reviews" with "weapon reviews".

Paragraph 3

Current text: Where feasible and appropriate, verifiability and certification procedures covering all likely or intended use scenarios must be developed, the experience of applying such procedures should be shared bearing in mind national security considerations or commercial restrictions on proprietary information.

New Zealand signalled concern over inclusion of "where feasible and appropriate" and requested

stronger language (i.e. "urging" or "calling on states"). Pakistan expressed similar concerns, as well as about the reference to "verifiability and certification procedures."

Paragraph 4

Current text: Prevent the diversion of autonomous weapons systems to unauthorized users, by adopting appropriate measures at the national level in order to regulate production, acquisitions and transfers.

The US stated that the concept of preventing diversion has not been discussed in detail and thinks it could exceed the GGE's mandate, so suggested to not include this. India, Russia, and Israel agreed and suggested deletion.

France highlighted the risks of pirating, in relation to diversion.

Pakistan said this paragraph would need to be formulated carefully because many export controls are done through subjective, national measures.

New paragraph on peaceful uses

Argentina spoke about the peaceful uses of technology, which is currently reflected in section 6. Argentina referred to the nuclear Non-Proliferation Treaty (NPT) as a model for how access to technology for peaceful uses should be guaranteed in this context. It suggested creating a new paragraph in this section to state that "RMMs should in no way undermine states' inherent right to access emerging technology for exclusively peaceful purposes". This could also be combined with current paragraph 5(3).

The Philippines responded informally to this topic. It said it did not want to open a debate about if technology is good or bad—it is the use that matters. Philippines noted that many of the states promoting an LBI have acknowledged the positive benefits of technologies and do not want to be demonised as "anti-tech". However, technologies can be misused and if private companies are already moving to address the risks associated with advanced technologies, asked the Philippines, why can't governments and militaries act to do the same?

SECTION 6: OPERATIONAL ASPECTS

Allison Pytlak | Women's International League for Peace and Freedom

Just as in the Group of Governmental Experts (GGE) [first formal session](#) held in August, section 6 of the [Chair's revised draft paper](#) on "operational aspects" (former section 7) sparked confusion among delegates. This became particularly evident during an exchange between the United States (US), India, the Philippines, and the Chair during the meeting on Thursday, 30 September and flowed over into the penultimate meeting of this session held on Friday, 1 October, which involved other states.

The debate over section 6 demonstrates that High Contracting Parties (HCPs) view it very differently: some see it as describing measures to implement principles and actions outlined elsewhere in the document, while other delegations raised concerns that new commitments are being proposed in this section. Still others see it as a space for outlining next steps on the "way forward" and argued that the section should be renamed as such. This generated significant discussion about next steps, which is captured below—noting however that a separate discussion was held on the topic of the "way forward" at the close of the session and is summarised elsewhere in this edition.

While not directly relating to section 6, France and Germany set out a [proposal](#) to create a new consultative panel of experts as states were discussing section 6. This is described in this summary.

At the end of the session, the Chair announced that section 6 as it appears now will be deleted. He will keep open the possibility of a "new" section 6, for which the heading and content needs to be agreed. Paragraph 6(3) will likely be moved elsewhere, for reasons described below.

Overarching comments on section 6

The US opened its comments on this section by noting that it found the overall purpose of the section unclear and so prefaced that its inputs are based on what the US understands and assumes

the Chair's intentions to be. The Chair clarified that his general intention with this section was similar to as the US has understood it to be: that this section is about implementation of what is found and described in the preceding sections.

India spoke more than once about this section, raising different overarching points and concerns. Most of these are captured under 6(1) below. In response to India's points and questions about what is being agreed to by this section and in this document, the Chair clarified that he was outlining here the measures that are necessary in order to implement the principles that have already been agreed and those that are contained in other parts of the Chair's revised paper. However, the understanding of the "informal group of 10" (Argentina, Costa Rica, Ecuador, El Salvador, Palestine, Panama, Peru, Philippines, Sierra Leone, and Uruguay) described below is quite different and relates to the way forward—that the recommendations found in section 6 focus on the normative framework, while the future mandate is a separate recommendation.

The Chair noted that the compendium of applicable international law suggested by Portugal in its [written submission](#) could also be seen as an operational measure to take collectively, but could also be part of future mandate.

Australia said that it sees what is in the Chair's revised paper as a normative and operational framework (NOF), and that it is important to see how the various elements of the paper get reflected in the draft report. Then states can talk about the way forward.

In a statement delivered during Friday's meeting, the Philippines registered concern with the explanation given by the Chair on Thursday about the purpose of this section, which, in the Philippines' understanding, would make the Chair's revised paper a prescriptive document. Philippines said this deviates from how it understands the paper. It said it agreed with the US and India

that this paper is not yet a NOF but rather, it is a “vehicle” that would take the GGE through a journey towards consensus recommendations for a NOF. The Philippines shared that through its past statements and submission it has given views on how to characterise that journey forward, but also warned that the process of consensus-building should “not be characterised by inertia”. The Chair’s paper has served as a useful tool in that journey so far, it said, but states are now at a point to bring that process to a logical conclusion, and that conclusion must be identified in the Chair’s paper.

In this spirit, the Philippines stressed that for the Chair’s paper to be balanced and fair, all recommendations have to be included—including to negotiate a legally binding instrument (LBI). The Philippines acknowledged that there is not consensus for negotiating an LBI, but that a majority of delegations are insisting on the need for a mandate for one and this should ultimately be reflected in the recommendations. Venezuela, Uruguay, Cuba, and Costa Rica agreed and stressed the “way forward” must be addressed somewhere in the document.

In response to the discussion about the section as a whole and questions from India in particular, Cuba observed on Thursday that when the GPs were adopted, the “obvious thing” was for every state to review its legislation and ensure it would fulfil those principles. There are doubts as to whether the GGE has a mandate to recommend a state implement what the Group proposes. It noted that the [2019 GGE report](#) sets out a mandate but does not include a recommendation for what states should do.

[Amnesty International](#) presented a substantive intervention about the elements found in all three paragraphs contained in section 6. First, it noted that the component remote biometric surveillance technologies upon which the computer vision functionality of some AWS depends have in recent years been subject to an increasing number of bans, globally. Second, Amnesty stated that the idea that the responsibility for wrongful acts of a system lies with those who have designed or operated it, is a distraction. It reiterated that under international human rights law (IHRL), it is the state

that has an obligation to determine whether the use of new weapon systems would be prohibited by international law and to investigate violations. Finally, Amnesty reiterated its call on states to agree to a negotiating mandate in December and to work towards a legally binding instrument, noting that “the pace of technological development must be matched by your determination to meet the threats AWS pose.”

Title

The US suggested changing the title to “implementation measures”. It explained that other parts of the paper can also be operationalised and that this title here gives the impression that only this section forms the NOF, whereas, in the US’ understanding, the mandate of the GGE is to develop consensus recommendations on aspects of the NOF.

The informal group of 10 proposed changing the title to “The way forward”. This was supported by Argentina, although Argentina also said that it is up to the Chair as to whether or not to retain this section.

Paragraph 1

Current language: *Adopt the appropriate legal, administrative and other measures.*

Cuba said it believes that there are two legal issues that present possible areas of work: first, to determine gaps in international law, and second, to give them scope or interpretation. It also urged being clear in this section about looking at the possibility of working toward an LBI. This latter point was supported by Argentina.

India indicated that it is not clear what is meant by these “measures,” and said that the formulation is too abstract. The Philippines and Australia agreed.

The US asked to insert “national” before “legal”. It also asked to insert “emerging technologies in the area of LAWS” in order to be consistent with the GGE’s mandate. India asked why the US has made this suggestion and what the implications would be. In the context of its overall uncertainty about the purpose of this section, India asked what is the

“net effect of this undertaking that we have signed onto through this report.”

The US responded to say that it has not understood the purpose of this section, or 6(1), to be inviting discussion on the GGE’s future mandate. It sees states as being in various ongoing, national processes of acting on the various measures that are relevant and necessary to AWS, noting that it has acted earlier than most other delegations, but pointed out that others are taking similar steps, citing France’s national process and noting that the Netherlands has said it will soon finish a review, too. The US said that what it was trying to do in this section was to reflect the importance for states to engage in this type of national process, while, simultaneously and through the GGE, also working through the GGE’s mandate to “clarify, consider, and further develop” the NOF. It did not want to give the misimpression that these activities are the NOF.

India noted that in the Chemical Weapons Convention, the Long-Term Sustainability of Outer Space guidelines, and the Hague Code of Conduct Against Ballistic Missile Tests, there are articles that convey obligations on states, and other articles about national implementation that give “absolute clarity” about what is to be done within those frameworks. But in this case, India argued, states have only been discussing elements for possible recommendations. Other than the GPs, the GGE still needs to form a NOF and only then can states give effect to the obligations flowing from them.

The informal group of 10 proposed an amendment for this paragraph: “Adopt the appropriate legal and administrative and other measures to implement the commitments and agreements contained in the NOF.”

Australia said it would be important to articulate with more granularity how international humanitarian law applies to autonomous weapons, with a focus on the peculiarities of autonomy.

Russia proposed deleting this paragraph.

Paragraph 2

Current language: *Exchange national policies, experiences and good practices on a voluntary basis.*

The US asked to insert “emerging technologies in the area of LAWS” in order to be consistent with the GGE’s mandate.

Paragraph 3

Current language: *Avoid hampering progress in or access to peaceful uses of technologies, taking into account the dual use nature of the technology underlying autonomous technologies.*

India observed that this paragraph flows from Guiding Principle (GP)g, which it would wish to include somewhere.

The US asked to insert “emerging technologies in the area of LAWS” in order to be consistent with the GGE’s mandate.

Russia requested to bring the language in line with paragraph 16(d) of the [2017 GGE report](#), which it said fully reproduces the idea that is included in the revised Chair’s paper, but in a somewhat broader fashion. It proposed the following: “Acknowledging the dual nature of technologies in the area of intelligent autonomous systems that continue to develop rapidly, discussions and any potential policy measures taken within the context of the CCW shouldn’t hamper progress in or access to peaceful uses of intelligent autonomous technologies.”

The informal group of 10 suggested a reformulation for the start of the paragraph, to read: “Guarantee the inherent right to progress in and access to peaceful uses of technologies, taking into account the dual-use nature of the technology underlying autonomous technologies.” Cuba said it was favourable to this.

India asked how to practically “avoid hampering” with the peaceful uses of technologies. It said it was baffled to see this in this section, noting that the CWC has a similar provision about progress and peaceful uses, but that in the CWC those provisions are given effect through another article contained in the Convention.

Argentina stressed the importance of science and technology as key for achieving the 2030 Agenda, building in some ways on comments it made in

response to section 5. It was pleased to see the language in 6(3) but suggested reformulating it to make it strong. Argentina proposed replacing “Avoid hampering...” with “Guarantee the inherent right of states to access the peaceful uses...”.

Following the Chair’s suggestion that he may delete this section and move paragraph 6(3), Argentina spoke during Friday’s meeting on this again. It said it would like to see this paragraph retained and moved to the introduction section, noting there had been no disagreement with it.

Proposed new paragraph

The Group of 10 proposed a new paragraph: “Recommend a new mandate for the GGE to immediately initiate an open-ended process to negotiate an LBI in order to strengthen the existing framework of international law.”

The US asked if, based on this proposal, the informal group of 10 sees this section as an invitation to begin discussing the GGE’s mandate, including because of the proposed title change from the G10. The US said it would expect a

discussion on the mandate would come up, but in the form of the GGE’s draft report.

Establishing an independent panel of experts

France and Germany presented their joint proposal for the GGE to establish a panel of experts. The mandate could be to periodically inform HCPs on new developments in technologies relevant for the discussion on emerging technologies in the area of LAWS. As outlined in their written proposal, “the Panel could help maintain a high level of vigilance on this issue, which is by nature prospective and dynamically evolving. It could also help States in developing their expertise and, over time, as needed, adopting appropriate measures in the framework of the CCW to respond to specific challenges posed by emerging technologies in the area of LAWS not yet identified.”

The proposal envisages a panel that would not duplicate work of GGE; make recommendations; nor take part in negotiations. The panel would be selected based on geographical diversity, with approximately 15–20 experts.

ETHICAL CONSIDERATIONS

Katrin Geyer | Women’s International League for Peace and Freedom

After several delegations expressed their wish to have a separate section on ethical considerations (ECs) in the [Chair’s revised draft paper](#) (CP), the Chair circulated a [document](#) with four bullet points on the topic on 30 September, for delegations to consider on Friday morning.

The text seeks to situate ECs within international law, describes fundamental challenges to ethics posed by autonomous weapon systems (AWS), and sets out how and why ECs play a role in limiting the scope of AWS.

Overarching comments on section 1

Netherlands welcomed the circulation of these paragraphs (paras), providing an opportunity to think about the applicable ethical framework for AWS and to take into account concerns by civil

society organisations, international lawyers, and diplomats, amongst others.

Article 36 welcomed this section, which it said would strengthen the paper and fill gaps. Philippines also welcomed it, encapsulating growing consensus around the need to satisfy EC in responding to risks and challenges posed by AWS.

Russia didn’t understand why the discussion on EC was opened up again, as the results of discussions on this topic are accurately reflected in the chapeau of the GPs, as well as in the 2019 GGE report in para 32. It said there was nothing to add beyond this.

Turkey said no matter how complex a weapon system (WS) is, decisions cannot be immune from moral and ethical values.

Germany was deeply concerned about the challenges of fully AWS with respect to ethics and moral values.

United Kingdom (UK) argued that the term “ethics” needs to be clarified, arguing that the GGE deals with “applied ethics,” an ethical framework regulating conduct in a specific field. UK said there is a need to understand the context the GGE is operating in to understand which ethics are most relevant. It argued that within the specific context of armed conflict, military ethics is most relevant.

Philippines argued that “military ethics” do not address the full appreciation of the dangers posed by AWS and their specificities. AWS are *sui generis* due to their transformative detail, they threaten to displace the centrality of human agency in the use of force. This is unprecedented and ECs are more pronounced. Pakistan made similar remarks.

Austria said that EC are particularly important to AWS, as demonstrated by establishment of multilateral fora on ethics and in different fora, outside of the UN and at UNESCO.

Switzerland said that its armed force includes ethics as part of its identity.

Netherlands feared it would be difficult to come an agreement on application of ECs to AWS.

France said that the GGE is far from reaching consensus, and that this shouldn't be a focus just ahead of the CCW Review Conference (RevCon). India and Russia made similar observations.

UK said a proper framing of ECs might best be achieved in the next phase of the GGE; a next step could be a compendium document drawing from best practice and practical implications of ethics and moral considerations in the context of AWS.

India could not accept draft language in this section, and while open to it, stressed that ethical and moral perspectives should not be the centre of discussions nor the primary framework.

Philippines said there is a path to consensus, and that this stand-alone section is a vehicle to find consensus.

Ireland reminded of the GGE's mandate, which is to bear in mind ECs. A section on ethics is necessary and Ireland supported its inclusion after section 1 of the CP. Austria, Brazil, Chile, and Mexico also called for a separate section after section 1.

National work on ECs

Netherlands said that it is currently awaiting an advisory report on the subject of AWS that will discuss ECs, and expects to receive this in a few weeks, after which it will calibrate its position on this topic.

UK awaits publication of its AI defence strategy by the end of the year.

France explained that it created a permanent body in 2019, the Defense Ethics Committee, applying ECs to the integration of autonomy in lethal systems. France explained that it has military ethics founded on its military doctrine and internal and international normative frameworks regulating the use of force by its armed forces.

United States (US) explained that its recently adopted AI principles include ECs in the use of AI in WS.

Human dignity

Ireland and Austria supported inclusion of a reference to human dignity in this section.

Switzerland stressed that the report should capture the notion that AWS that identify and engage targets without meaningful human control (MHC) are not only unlawful but also questionable from an ethical point of view, especially with respect to human dignity.

The International Committee of the Red Cross (ICRC) welcomed attention to ECs, which should be at the heart of debate about the acceptability of AWS. It stressed that ECs centre on the interrelated exercise of human agency, respect for human dignity, and upholding moral responsibility in the use of force.

Brazil, Chile, and Mexico said that ECs in the context of AWS should be approached from

broader perspective of human security, and should not only consider the perspective of those using force but also from the perspective of victims and humanitarian harm, centered around human dignity.

ICRC stressed that the dehumanising process of AWS raises fundamental ethical concerns, and those at the cutting edge of technology development are often the first ones to point this out.

Austria warned against dehumanisation at all costs.

ICRC explained that ethically speaking, societies demand human deliberation about choices affecting humans, especially if they have irreversible and life changing consequences.

ICRC underscored that ECs are particularly acute for AWS designed and used to target humans directly, as opposed directing them at military objects. Argentina, Costa Rica, Ecuador, El Salvador, Panama, Palestine, Peru, Philippines, Sierra Leone, and Uruguay echoed this. Article 36 agreed, noting that machines identifying people as direct targets raises specific ethical concerns, which should be reflected in the text. The [Campaign to Stop Killer Robots \(CSKR\)](#) said that “AWS that target humans, whether civilian or combatant, would dehumanise people, harming them on the basis of a processing of sensor inputs—converting people into data, sensed and sorted by a machine. In killing or wounding people based on such abstractions, these systems would offend human dignity. Allowing sensors and software to determine who lives and who dies is morally unacceptable and should be prohibited under any framework dealing with AWS.”

Austria observed that the states needs to put humans first but that the only room where this conclusion isn't agreed upon is the one of the GGE.

Ethics vs. law

Netherlands stressed that humanitarian considerations have already been taken into account when existing international humanitarian law (IHL) instruments were drafted, as such ECs

played a part when the law was adopted. UK also said that IHL has grown out of ECs.

ICRC explained that EC have always been an important driver for the evolution of international legal rules in warfare, including the prohibition and regulation of WS. Like any legal code, IHL aims to give expression in legal form to ethical norms. Any code can never be a definite or finite representation of the evolving ethical norms in society.

Cuba said that any norm of law reflects values, and therefore relates to an ethical framework in its evaluation.

Ireland said that ECs inform the elaboration of law.

Netherlands observed that with the passing of time and the development of technology and new means and methods of warfare, there is an increased distance on many different levels between those involved in armed conflict. ECs remind that it is important to “recalibrate” international obligations. However, it warned against jumping too quickly from ECs to words that reflect existing legal obligations. Israel, UK, and US agreed.

UK said that the output of the GGE process needs to be carefully crafted to recognise the importance of IHL compliance without adding additional obligations under the guise of ethics.

France said that ECs are important for the GGE's debate on AWS, but warned against making ethics of equal importance as international law (IL) and IHL, which are a central part of the CCW and the work of the GGE. US agreed.

Switzerland said that ethical aspects are located on a different level than IL and that there is no mechanism to codify ethics in the same way that IL does.

India said that morals and morality are a function of space and time and are highly subjective that keeps changing and evolving.

Philippines argued that beyond spectrums and cultural particularities in the expression of ethics there is broad agreement of fundamental questions, standing the test of time. These include

the principle of the value of human life and dignity of human life. Similarly, there is agreement on one fundamental principle: that it is unethical for humans to be reduced to mere datasets.

Palestine said that law is also evolving: what was considered legal 100 years ago, is considered illegal today, and that ethics is the overarching framework, not subordinate or secondary but at the heart of all discussions on AWS.

Austria said it perceives ethics as an umbrella, overarching law and giving it context.

US said that the principle of honour and military ethics are the foundation on which IHL has been established, and are a medium in which IHL can be effectively implemented.

US argued that if the use of technology advances universal values such as the protection of civilians, the development of such technology would be more ethical than refraining from such use.

Israel said an inaccurate discussion of ECs could undermine IL and IHL obligations and thereby the protection of civilians.

Palestine requested clarification of the argument that EC can weigh in favour of acquiring of AWS. It wondered if that implies that when a person is killed in a more accurate and a speedier process, human dignity is upheld?

The International Panel on the Regulation of Autonomous Weapons (iPRAW) said discussions should be guided by a different approach to ECs that questions if, irrespective of the outcome, life and death decisions should be transferred to machines. It recalled work by Peter Asaro and Christof Heynes that defined a set of minimum requirements to ensure human dignity in the use of force.

CSKR said the ethical challenges presented by AWS have the potential to undermine respect for existing legal rules and fundamental rights, to further weaken accountability for harms in conflict and to negatively shape our relationship with autonomy in decision making across all areas of society.

Paragraph 1

Current text: Ethical considerations, including the principles of humanity and dictates of public conscience are central to determining the acceptability of and limits on autonomous weapons systems. Ethical considerations on autonomous weapons systems includes consideration of compatibility with international law but goes beyond this to encompass moral acceptability also.

Netherlands noted that this para was an excerpt from the Marten's Clause (MC). It supported this as binding rule, and said that the MC is an entry point for ECs underpinning law.

Switzerland can support the notion that ethical considerations are included but wondered about the term of "moral acceptability".

UK said that this para goes beyond the law to encompass moral acceptability, and that it is important to understand what is meant by this. It stressed that if "moral" and "ethical" are used as distinct concepts, there is a need to clarify what is meant by them.

US said this para confuses ethical and legal considerations.

Ireland said that the reference to centrality of ECs to determine the acceptability of a WS is a key point.

Austria and Ireland welcomed the term "moral acceptability". Austria suggested to also add "political acceptability".

Cuba welcomed the second sentence, stressing that in the absence of law, states have to be bound by ECs.

Cuba also suggested adding: "ECs are applicable and required from all of the actors in the context of AWS" to clarify that ECs apply to any actors connected to AWS.

Cuba said that "acceptability" in the first sentence should be replaced with "standards," as "acceptability" in Spanish gives a positive spin while "standards" is more neutral.

Paragraph 2

Current text: *The ceding of a responsible human chain of command and control, of the agency, responsibility and intent in decisions on the application of force to algorithms and computer-controlled processes poses fundamental ethical concerns and could reduce the threshold for the decision to use force, resulting in a possible amplification or prolongation of conflicts.*

Switzerland had doubts about the second sentence, which is of a different thematic nature, linked to possible instabilities resulting from AWS.

UK was not clear about the rationale of this para. It argued the concerns mentioned are also related to political and security concerns, rather than purely ethical.

Ireland proposed language to simplify the text and to replace “responsible human chain of command and control” with “the ceding of human control (HC) in the application of the use of force.”

Austria suggested replacing “human chain of command and control” with “MHC”.

Austria said that the reduction of the threshold for the use of force is a fundamental concern and thus could also be moved to the risk section of the CP.

US said that this para is vague and speculative and wouldn’t advance the GGE’s work. It argued that the appropriate use of machines can enhance human agency.

Cuba suggested to add language at the end: “and the possible evasion of responsibility and accountability for violations of applicable IL.”

Brazil, Chile, and Mexico urged to avoid conflating concepts of “human chain of command and control” and “HC”. The concept of HC is a singular condition for the use of AWS while the concept of command and control is an exercise and authority of direction of a military goal. HC is a specific condition related to the operation of AWS, which is the issue of discussion of the GGE, and this para therefore should reflect HC and not human chain and command of control.

Argentina, Costa Rica, Ecuador, El Salvador, Panama, Palestine, Peru, Philippines, Sierra Leone, and Uruguay jointly said it is important to include a specific reference to ensure decisions made by humans won’t be replaced by artificial intelligence (AI) or processes controlled by computers, meaning that HC should be preserved. Otherwise there is a clear risk of undermining the involvement of humans in the use of force, as well as human agency and moral responsibility related to such decisions.

Paragraph 3

Current text: *Ethical considerations must be taken into account to establish limits on autonomy by determining the necessary type and degree of human control to be retained over autonomous weapons systems. They also underpin the necessity of elaborating positive and negative obligations with respect to any potential development or use of autonomous weapons systems.*

Netherlands proposed to delete the second sentence and to reformulate the first sentence: “ECs must be taken into account and underpin the limits on autonomy by determining the human factor relevant to emerging technology in the area of AWS.”

Switzerland said that while it supports work towards positive and negative obligations nationally, this para could be framed more generally.

Turkey would like to see the term LAWS used in this para.

Ireland welcomed this para.

US disagreed that new obligations need to be established and reiterated it is unconvinced that a new legally binding instrument is needed.

Paragraph 4

Current text: *In order to prevent the erosion of existing ethical standards, there must be a direct connection, with a clear line of human responsibility and accountability, between the human rationale for the deployment of an autonomous weapon system*

and the direct consequences of its use. Ethical and legal responsibilities on the decision to apply force requires context- specific, value-based judgment by human beings.

To better reflect that the para deals with ECs and not legally binding considerations, Netherlands would like to see the first sentence deleted.

Switzerland said that a number of aspects are put together in this para and raise several questions.

Ireland noted that this para uses complex concepts, and that it may need to be separated. It said it

is important to ensure that ethical and legal responsibility under the decision to use force requires context-based, value-based judgement by human beings. It is important to keep this para, as it links to the concept of MHC.

US doesn't agree that the use of autonomy in WS creates erosion of ethical standards. As it argued previously, new technology can enhance accountability by, inter alia, having a system log recording of WS use and performance.

Turkey would like to see the term LAWS used in this para.

WAYS FORWARD

Allison Pytlak | Women's International League for Peace and Freedom

The second session of the current Group of Governmental Experts (GGE) on autonomous weapon systems (AWS) ended with an informal discussion about the way forward. This discussion began in the context of reviewing section 6 of the [Chair's revised draft paper](#), with respect to the purpose of the Chair's paper vis-à-vis the report that the GGE will need to agree by consensus and submit to the Sixth CCW Review Conference (RevCon) in December. The GGE's report will, in theory, set out next steps, including if there will be another GGE and if so, what its mandate and duration will be, along with other considerations.

Virtually all delegations stressed the urgency of progress. For some this was about the short time between now and the RevCon. Others emphasised the need for action in light of the pace of technological development. "Our journey has come to a point where we have to turbo charge to keep pace," warned the Philippines. "We've come to point where we have to identify way forward that would do justice to aim of CCW and the desire of all people living in all countries here today." Cuba invoked Nietzsche's view of time as a "flat circle" to make the point that these discussions cannot go on forever without an outcome.

At the close of discussion, the Chair said he and his team will review all proposals discussed and work on a draft report. They will try to incorporate the

recommendations for a normative and operational framework (NOF) in the GGE report, based on the elements discussed in the Chair's paper. He shared that the report will probably be much shorter than the current draft of his paper, but will reflect progress made and consensus reached on some issues. The Chair said he took note of the wish from multiple delegations to have enough time to analyse the report and consult in capital.

Divergent views

Cuba observed that it seems as if delegations are "looking in different directions". It expressed concern that some delegations give the impression that they think it is possible to reserve the right to develop AWS without regulations or limits.

The United States (US) referred to a comment made in an earlier meeting by the Philippines, which described the GGE process and working through the Chair's paper as "being on a journey". The US agreed and felt that this journey has led on an effort to consider and develop a NOF, including progress on substance, and that the "we" referred to by the Philippines applies to CCW states parties and civil society, that are together on this journey. The US said that a key feature for any future mandate is that it allow the GGE to continue to make progress on substance and for all to contribute.

The US also expressed concern with the perspective of some states that the GGE at an inflection point, arguing that this view is divisive rather than unifying.

In response, the Philippines returned to its metaphor of a journey to clarify that it is equally important that the journey have a destination. It noted that there is a parallel movement going on outside the CCW, in which rapid advances are rapidly transforming the nature of war. Meanwhile, the global governance regime and current norms are ill equipped to handle these changes, which requires the development of a new legally binding instrument (LBI). Pakistan agreed, arguing that since states disagree on the level of prohibitions and regulations, the common destination must be to create rules to plug whatever gaps are identified.

Austria observed that the journey concept was discussed in 2017–2019 and while the GGE may be on one now, sometimes states are looking in opposite directions. It hopes it is not just about tourism and an endless journey, but one that finds its purpose.

India said it is happy walking on a treadmill.

Chair's paper and GGE report

France expressed that working with the Chair's paper has been useful but said that it has reached its limits and more focus is needed. The US said that the Chair's paper has been a vehicle to help provide focus and detail and show where more expertise is needed.

Switzerland said that the GGE's report should cover proposals raised this year, particularly the "modular approach" that would prohibit AWS that cannot respect international humanitarian law (IHL), and provide regulation for the others.

The informal group of 10 (Argentina, Costa Rica, Ecuador, El Salvador, Palestine, Panama, Peru, Philippines, Sierra Leone, and Uruguay) said that deleting section 6 of the Chair's revised paper is not the best way to make progress. If the Chair decides to do this, then another section will need to be added. The group urged having a section on engagement that would include IHL and a separate

section on the way forward, which would reflect discussions under agenda item 5(e).

Argentina observed that it is not clear what the format of the final report will be or how it will cover the elements contained in the Chair's revised paper. It suggested an independent section on the way forward, which would summarise the debate had in the context of agenda item 5(e).

Philippines reminded that a majority of states are calling for an LBI, and that other elements and actions contained in the Chair's revised paper, such as weapon reviews, did not enjoy the same level of support. Philippines acknowledged, however, that despite the momentum for an LBI, it knows that it doesn't enjoy unanimity.

Argentina would like to see recommendations on a NOF in final report through the negotiation of an LBI containing prohibitions and regulations.

The Non-Aligned Movement (NAM) argued that various proposals such as for a political declaration, code of conduct, weapon reviews, or expert committees cannot substitute for an LBI with prohibitions and regulations. Chile, Brazil, and Mexico said jointly that a political declaration would not suffice. The problem with the exchange of good practice is that it leads to national differences without oversight or enforceability.

Future work

Mandate and focus

The informal group of 10 reiterated its call that the GGE recommend to the RevCon to approve a new mandate to initiate immediately an open-ended process for an LBI in form of new CCW protocol, to include specific regulations and prohibitions on AWS. In the view of the group, non-binding norms or political declarations cannot do full justice to the complexity of the issue. At best, they can be intermediary or complementary to an LBI.

Philippines, Cuba, and Argentina spoke in their national capacities to support the call from the group of 10. Chile, Brazil, and Mexico said jointly that they want an LBI. The Philippines further explained that the proposal will do justice to the

aim of the Chair's paper, which is to capture all elements for possible consensus recommendations for consideration of aspects of a NOF. The form of the NOF (whether a legally binding instrument, a code of conduct, or a political declaration) is an aspect of a NOF.

Argentina stressed that the GGE's mandate must be strengthened. It highlighted that this GGE has an opportunity to be preventive that has not been experienced in other weapons issues, like nuclear or chemical.

France suggested that the next cycle should focus on items that need further work or where more discussion is needed. Austria also urged focus, to avoid going in circles. It observed that one of the lessons learned is that rather than general statements, states need to focus on key elements that help to advance common understanding.

Austria said that the GGE should focus on developing an LBI with prohibitions, regulations, and provisions on legal responsibility and accountability. It noted that GGEs in the CCW lead to protocols, but that this one feels like a meeting of experts for existing protocols and that it is time to start offering solutions.

Switzerland observed that the GGE's mandate has gone through number of iterations in the last eight years and has seen several additions. It is now being understood and interpreted differently but will be crucial that a future mandate guide the GGE toward a tangible result. Switzerland urged a document that would "allow us to validate the considerations that have arisen from our work." It said it is flexible on the exact format but believes it's time to move in that direction.

China said that the main responsibility of the current GGE should be to submit a report to the RevCon that reflects consensus and clarifies the mandate and direction of discussion for the next five years. The report could be drafted following the practice of earlier years and as much as possible use agreed language and avoid including controversial elements.

Cuba felt that progress hasn't been made on the part of the current GGE's mandate to "clarify and

develop a normative operational framework." It said that working towards cooperation on a new mandate without a text will be difficult to discuss.

Russia said it would support the continuation of the GGE with a discussion mandate until 2026. China supports continuing the existing mandate and continuation of in-depth discussions.

Japan said that there needs to be continuation of current work but that states haven't reached the point where negotiations can begin.

Pakistan said that whatever option is taken up, risks must be dealt with. While the CCW is a forum that has IHL as a key component, it is also an arms control fora, and the continued development of international law must be recognised.

The NAM requested a strengthening of the GGE's mandate that is focused on creating an LBI that would include several elements, which have been outlined in other NAM statements and submissions.

Algeria urged a reinforcement of the GGE's mandate to allow it to crystallise commitments and work in a preventative manner, anticipating humanitarian and security issues. Algeria acknowledged that voluntary mechanisms are not enough and suggested future work be based on the guiding principles and deepen the work on legal, technical, and military aspects and conclusions of the Group.

Algeria also outlined that ethical and moral concerns, as well as the problems of autonomy in critical functions, and shared definitions, understandings, and concepts should be included in substantive discussions. Algeria suggested identifying the key attributes that characterise autonomous weapons systems.

Expertise

France argued that better expertise is needed in the GGE, and felt that lack of expertise on many issues is holding back the Group from reaching a collective vision on how to manage these new weapon systems. Earlier in the session, France and Germany circulated a proposal to create a consultative panel of technical experts for the GGE.

The US responded to say that many in the GGE have felt they could do a better job on technical levels, though while some can bring legal, technical, and military expertise, other delegations cannot.

Russia said that the effectiveness of the future GGE would depend on its level of expertise, which states will have to provide. Without that, achieving any substantive result will be very difficult. It said it would be unfounded to establish a separate group of technical experts because the GGE was created as the forum to do this. Russia doubts the necessity for the bureaucratisation that an expert group would create and suggested the GGE would not raise the effectiveness of its work by creating additional formats that could be a burden on participants, including financially.

China proposed the creation of three working groups in a new GGE: technical, military, and legal. The working groups could make recommendations on the clarification, consideration, and development of NOF on basis of consensus.

Australia, Switzerland, and Brazil, Chile, and Mexico thanked France and Germany for their proposal and said they will consider it further. Australia said it sees value in more sustained and targeted discussion on key issues with the involvement of relevant experts, but there is a need to avoid duplicative efforts and bear in mind the CCW's financial issues. It welcomes the practice of states sharing national papers as a springboard for discussion.

Austria pointed to the wealth of knowledge in the GGE and urged making effective use of resources, thinking, etc. The time has come to put it on paper and demonstrate that the GGE is ready, committed, and serious.

Other

France asked why others have criticised its two-dimensional approach, developed with Germany, to distinguish between fully and partially autonomous lethal weapons (FALWS and PALWS). It said that unless it has misunderstood, it's possible that some country wants to reserve the possibility of developing FALWS, which it said is "rather worrying".

France announced it is hosting a retreat in Avion and is receptive to ideas on how best to organise it. It believes this will be important in preparing for the RevCon. The Chair and Austria offered thanks for this initiative.

Austria thanked civil society for its tireless efforts. It also said that the suggestion made earlier for a joint session with human rights colleagues is a good one.

Australia supported the proposal from Portugal for a Montreux-style compilation document. Chile, Brazil, and Mexico said jointly that they would study it further. Austria said this has been covered by academia and civil society and encouraged colleagues to present their findings in December.



CCW REPORT

Reaching Critical Will (RCW) is the disarmament programme of the Women's International League for Peace and Freedom (WILPF), the oldest feminist peace organisation in the world. RCW works for disarmament and the prohibition of many different weapon systems; confronting militarism and military spending; and exposing gendered aspects of the impact of weapons and disarmament processes with a feminist lens. RCW also monitors and analyses international disarmament processes, providing primary resources, reporting, and civil society coordination at various UN-related forums.



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The *CCW Report* is produced by the Reaching Critical Will programme of the Women's International League for Peace and Freedom (WILPF). WILPF is a steering group member of the Campaign to Stop Killer Robots.

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

CCW REPORT

Vol. 9, No. 7

4 October 2021

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