

III. Intergovernmental efforts to address the challenges posed by autonomous weapon systems

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An intergovernmental debate on emerging technologies in the area of autonomous weapon systems (AWS) started in 2013 under the auspices of the 1981 Convention on Certain Conventional Weapons (CCW Convention).¹ The debate, which has been led since 2017 by a group of governmental experts (GGE), focuses on the humanitarian and security challenges posed by the development and use of AWS.² From the start, the underlying policy question has been whether such challenges warrant the adoption of a new, legally binding regulation, such as a new protocol to the CCW Convention.³ Despite nearly a decade of expert discussions, states continued to express different views on that question in 2022.

Nonetheless, the deliberations of the 2022 GGE showed that the gap between states' positions has narrowed. Most states could agree that the normative and operational framework governing AWS needs to be developed further and that one possible way to proceed is through a two-tiered approach.⁴ Such an approach would, on the one hand, prohibit certain AWS and, on the other hand, place specific limits and requirements on the development and use of all other AWS. However, a handful of states oppose this approach, and so the convergence in positions was not reflected in the

¹ On earlier discussions on the regulation of AWS see Anthony, I. and Holland, C., 'The governance of autonomous weapon systems', *SIPRI Yearbook 2014*, pp. 423–31; Davis, I. et al., 'Humanitarian arms control regimes: Key development in 2016', *SIPRI Yearbook 2017*, pp. 559–61; Davis, I. and Verbruggen, M., 'The Convention on Certain Conventional Weapons', *SIPRI Yearbook 2018*, pp. 383–86; Boulanin, V., Davis, I. and Verbruggen, M., 'The Convention on Certain Conventional Weapons and lethal autonomous weapon systems', *SIPRI Yearbook 2019*, pp. 449–61; Peldán Carlsson, M. and Boulanin, V., 'The group of governmental experts on lethal autonomous weapon systems', *SIPRI Yearbook 2020*, pp. 502–12; Bruun, L., 'The group of governmental experts on lethal autonomous weapon systems', *SIPRI Yearbook 2021*, pp. 518–24; and Bruun, L., 'Intergovernmental efforts to address the challenges posed by autonomous weapon systems', *SIPRI Yearbook 2022*, pp. 532–44.

² On the GGE see UN Office for Disarmament Affairs, 'Background on LAWS in the CCW'. Although the GGE is mandated to address emerging technologies in the area of lethal autonomous weapon systems (LAWS), the term AWS is preferable because the concept of 'lethality' pertains to how the weapon system is used and its effects rather than the way it is designed. Moreover, AWS are capable of causing harm in the form of material damage or injury, irrespective of whether death was the intended or actual result.

³ For a summary and other details 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 (CCW Convention) and its protocols see annex A, section I, in this volume. On developments in 2022 see section II in this chapter.

⁴ Acheson, R., 'Denial cannot stop the reality of momentum', *CCW Report*, vol. 10, no. 9 (28 July 2022).

report that the GGE presented to the annual meeting of parties to the CCW Convention in November 2022.⁵

Many states and observers considered the opposition from those states—especially the Russian Federation—as the product of a systematic and politically motivated reluctance to use the CCW regime to achieve any substantive outcome on AWS.⁶ In their view, the likelihood that such reluctance will persist reignited the question of whether the CCW Convention was the appropriate forum to address the issue of AWS.

This section takes stock of the developments in 2022 in greater detail. After assessing the impact of the war in Ukraine on the GGE process, it gives an overview of the proposals discussed by the 2022 GGE followed by an overview of the outcome and the way ahead.

The impact of the Russia–Ukraine War on an already weakened GGE process

The prospects of the GGE achieving a significant outcome in 2022 were deemed to be low from the start. Many of the diplomats involved were disillusioned by the (lack of) outcome of the review conference of the CCW Convention in December 2021.⁷ Many delegations had considered that conference to be a critical juncture, a stocktaking event that would allow the convention's states parties to consolidate the progress made over the years and show the world that the CCW framework was not just a talking shop.

The ambition was that the review conference would adopt a new and meaningful political commitment for the regulation of AWS. However, despite the efforts by many delegations to propose language that could accommodate the wide spectrum of views, the 2021 GGE had failed to adopt a substantive report by consensus.⁸ Much of that failure could be attributed to the opposition of Russia and a handful of other delegations (India and Cuba in particular) to most of the elements contained in the draft text. The chair of the GGE, Ambassador Marc Pecsteen de Buytswerve of Belgium, had no choice but to turn the draft report into a chair's summary under his sole responsibility.⁹ Consequently, the 2021 review conference had little of substance to build on, except a proposal for a new GGE mandate. For the

⁵ CCW Convention, Group of governmental experts on emerging technologies in the area of lethal autonomous weapons systems, Report of the 2022 session, CCW/GGE.1/2022/2, 31 Aug. 2022.

⁶ Acheson, R., 'Road to nowhere', *CCW Report*, vol. 10, no. 10 (29 July 2022).

⁷ Chilean diplomat, Interview with author, 26 July 2022; and Sixth CCW review conference, Final document, CCW/CONFVI/11, 22 Apr. 2022, part II. See also Bruun, *SIPRI Yearbook 2022* (note 1).

⁸ Acheson, R., "Our position has not changed", *CCW Report*, vol. 9, no. 13 (17 Dec. 2021); and Bruun, *SIPRI Yearbook 2022* (note 1).

⁹ CCW Convention, Group of governmental experts on emerging technologies in the area of lethal autonomous weapons systems, Report of the 2021 session, CCW/GGE.1/2021/3, 22 Feb. 2022, annex III.

most part, this had been pre-negotiated informally behind closed doors and in substance mainly rolled over the previous mandate with some minor adjustments. The states parties eventually adopted that proposal.¹⁰ For many, if not most, delegations, this outcome was a major disappointment. Some states issued a joint statement that condemned Russia, without naming it, for abusing the consensus-based decision-making practice of the CCW regime.¹¹

In such a context, the war in Ukraine could only reinforce the apparent political deadlock of the CCW process on AWS. The first GGE session of 2022 took place on 7–11 March, only a few weeks after Russia's invasion of Ukraine. On the first day, most delegations condemned Russia's behaviour in their statements.¹² The Russian delegation responded robustly to such statements. It also called for the meeting to be postponed, invoking a battery of arguments, including that it had been discriminated against, as some of its experts had been unable to fly directly from Moscow to Geneva due to Western sanctions. Two days into the five-day meeting, the delegations were still discussing whether and how the GGE's deliberations could take place. Eventually, the chair—Ambassador Flávio Soares Damico of Brazil—decided to turn the GGE session into an informal meeting. Since informal meetings are not governed by the normal rules and procedures, this allowed for some substantive exchanges on a series of written proposals that had been submitted by different groups of states (see table 10.2).¹³ As a sign of opposition, the Russian delegation remained generally silent and engaged only to respond to statements related to Ukraine.

The second session, which took place 25–29 July, started on a somewhat better basis as it was held in a formal format and was centred around a draft text tabled by the chair of the GGE. This captured the commonalities between the different proposals and suggested possible conclusions and recommendations for the GGE. Nonetheless, the deliberation remained highly politicized. Russia, this time represented by a full delegation, seized many opportunities to hamper substantive exchanges with comments on formalities and rules of procedure, which often related to the participation of civil society. While these comments were sometimes echoed by Cuba and India, in general most delegations refuted them. Nonetheless, these interventions succeeded in significantly reducing the time available for detailed exchanges, notably on the draft proposals that had been tabled by

¹⁰ Sixth CCW review conference, CCW/CONFVI/11 (note 7), decision 1, para. 38.

¹¹ Sixth CCW review conference, Joint statement by Austria, Belgium, Brazil, Chile, Finland, Germany, Ireland, Italy, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, South Africa, Sweden and Switzerland, 17 Dec. 2021.

¹² CCW Convention, Group of governmental experts on emerging technologies in the area of lethal autonomous weapons systems, 2022 session, 1st meeting, 7 Mar. 2022, UN Web TV.

¹³ The rules are contained in fifth CCW review conference, Draft rules of procedure, CCW/CONFV/4, 28 Sep. 2016.

Table 10.2. Written proposals presented by states to the 2022 Group of Governmental Experts on Emerging Technologies in the Area of Lethal Autonomous Weapons Systems

Document	Submitted by
1. 'Group of governmental experts (GGE) document on the application of international humanitarian law to emerging technologies in the area of lethal autonomous weapons systems (LAWS)', CCW/GGE.1/2022/WP.1, 8 Aug. 2022	United Kingdom
2. 'Principles and good practices on emerging technologies in the area of lethal autonomous weapons systems', CCW/GGE.1/2022/WP.2, 8 Aug. 2022	Australia, Canada, Japan, South Korea, United Kingdom, United States
3. 'Roadmap towards new protocol on autonomous weapons systems', CCW/GGE.1/2022/WP.3, 8 Aug. 2022	Argentina, Costa Rica, Guatemala, Kazakhstan, Nigeria, Palestine, Panama, Philippines, Sierra Leone, Uruguay
4. Working paper on the future working of the group, CCW/GGE.1/2022/WP.4, 8 Aug. 2022	Argentina, Austria, Belgium, Chile, Costa Rica, Ecuador, Guatemala, Ireland, Kazakhstan, Liechtenstein, Luxembourg, Malta, Mexico, New Zealand, Nigeria, Palestine, Panama, Peru, Philippines, Sierra Leone, Sri Lanka, Switzerland, Uruguay
5. 'Elements for a legally binding instrument to address the challenges posed by autonomy in weapon systems', CCW/GGE.1/2022/WP.5, 8 Aug. 2022	Chile, Mexico
6. Working paper on LAWS, CCW/GGE.1/2022/WP.6, 9 Aug. 2022	China
7. Working paper, CCW/GGE.1/2022/WP.7, 9 Aug. 2022	Finland, France, Germany, Netherlands, Norway, Spain, Sweden
8. 'Draft Protocol VI', CCW/GGE.1/2022/WP.8, 9 Aug. 2022	Argentina, Costa Rica, Ecuador, El Salvador, Guatemala, Kazakhstan, Nigeria, Panama, Philippines, Sierra Leone, Uruguay
9. 'Application of international law to lethal autonomous weapons systems (LAWS)', CCW/GGE.1/2022/WP.9, 9 Aug. 2022	Russia
10. Working paper submitted on behalf of the Non-Aligned Movement (NAM) and Other States Parties, CCW/GGE.1/2022/WP.10, 9 Aug. 2022	Venezuela, NAM

states, and they eventually undermined the adoption of substantive conclusions and recommendations.

Overview of the proposals discussed by the 2022 group of governmental experts

The 2022 GGE was mandated to ‘consider proposals and elaborate, by consensus, possible measures . . . and other options related to the normative and operational framework on emerging technologies’.¹⁴ At the invitation of the chair, several states submitted written proposals for the GGE’s consideration. Most were submitted by coalitions of like-minded states, rather than individual states.

These proposals generally reflect the pre-existing spectrum of views that had developed over the years on how AWS should be regulated. They fall into two distinct groups. One group is based on the premise that international humanitarian law (IHL) is sufficient to regulate the development and use of AWS; these proposals consequently focus on voluntary measures to support compliance with IHL (i.e. the British proposal (numbered 1 in table 10.2), the United States-led joint proposal (2) and the Russian proposal (9)). The other group starts from the premise that IHL is insufficient and that new limits and requirements on the development and use of AWS are needed. In that second group, some proposals expressly call for the introduction of a legally binding instrument (i.e. Chile and Mexico’s proposal (5); the road map (3), working paper (4) and draft protocol (8) submitted by Argentina and various other states; and the working paper (10) submitted on behalf of the Non-Aligned Movement). Others limit themselves to articulating the need to move forward with a two-tiered approach that would prohibit certain AWS and regulate the lawful use of all other AWS (i.e. China’s working paper (6) and the working paper (7) submitted by Finland and others).

While the proposals arrive at different conclusions in terms of the policy measures that the GGE should recommend, they converge on some points of substance. Foremost, they take IHL as the fundamental baseline to gauge the acceptability of AWS. Any AWS that cannot be used in compliance with IHL is *de facto* prohibited. They also all stress that human decision-making, as well as being essential for IHL compliance, is also needed to ensure accountability in the use of AWS. These points about compliance with IHL and the centrality of human responsibility have, to a large extent, already been captured in the previous work of the GGE, not least the 11 guiding

¹⁴ Sixth CCW review conference, CCW/CONFVI/11 (note 7), decision 1, para. 38.

principles adopted in 2019.¹⁵ However, the written proposals demonstrated a willingness on the part of states to elaborate on what such points would entail. For example, the proposals typically attempt to provide greater clarity on the types of design feature and forms of human–machine interaction that would make the development and use of AWS lawful (or unlawful) and also acceptable (or unacceptable) from an ethical or security perspective.¹⁶

The proposals, as well as the exchanges around their content, also showed that there was an emerging consensus that a two-tiered approach could be a valuable vehicle to discuss the further regulation of AWS. Even states that submitted proposals on good practices and IHL compliance (i.e. the states behind proposals 1 and 2, notably the USA) acknowledged in their statements that their proposals and the two-tiered approach were not necessarily mutually exclusive.¹⁷

The question of how the two-tiered approach should be enacted remained unresolved. States continued to take different points of departure to define the contours of a potential prohibition on certain AWS and identify the elements of responsible development and use of other AWS. For some, the goal is to rearticulate or clarify the limits and requirements that already exist in IHL and that have already been agreed upon by the GGE through the 2019 guiding principles. For others, the goal is not just to clarify IHL but to go further by addressing concerns related to human rights and ethical considerations. The latter consequently suggest prohibiting specific use cases (e.g. prohibiting anti-personnel AWS is recommended by the International Committee of the Red Cross and also states such as Argentina and Palestine) and requiring specific human control over the use of force (e.g. Chile and Mexico recommend allowing for constant human supervision).¹⁸

The legal form that a potential two-tiered regulation should take also remains contested. The group of states behind the US-led joint proposal (proposal 2) continued to argue that it was premature to state that the two-tiered approach should be enacted in a legally binding instrument, since ‘form should follow function’ as the head of the US delegation stated multiple

¹⁵ CCW Convention, Group of governmental experts on emerging technologies in the area of lethal autonomous weapons systems, Report of the 2019 session, CCW/GGE.1/2019/3, 25 Sep. 2019, annex IV. On the adoption of the guiding principles see Peldán Carlsson and Boulanin (note 1).

¹⁶ Anand, A. and Puscas, I., *Proposals Related to Emerging Technologies in the Area of Lethal Autonomous Weapons Systems: A Resource Paper* (UNIDIR: Geneva, 2022).

¹⁷ CCW Convention, Group of governmental experts on emerging technologies in the area of lethal autonomous weapons systems, 2022 session, 2nd meeting, 26 July 2022, UN Web TV, 0:47:00–0:53:00.

¹⁸ International Committee of the Red Cross (ICRC), ‘ICRC position on autonomous weapon systems’, 12 May 2021; CCW Convention, Group of governmental experts on emerging technologies in the area of lethal autonomous weapons systems, Written contribution for the chair, Submitted by Argentina, Costa Rica, Ecuador, El Salvador, Panama, Palestine, Peru, the Philippines, Sierra Leone and Uruguay, Sep. 2021; and CCW Convention, Group of governmental experts on emerging technologies in the area of lethal autonomous weapons systems, ‘Elements for a legally binding instrument to address the challenges posed by autonomy in weapon systems’, Working paper submitted by Chile and Mexico, CCW/GGE.1/2022/WP.5, 8 Aug. 2022.

times.¹⁹ In their view, the GGE should first agree on an understanding of the limits and requirements that it deems to be needed for the responsible development and use of AWS. In contrast, states that called for a legally binding instrument stressed that one of the functions of the CCW Convention is to continue the codification of IHL, and that the GGE should aim for legally binding rules.

The outcome and way ahead

In his drafts of the GGE report, the chair tried to integrate the different views on the text that he had presented at the second session of the GGE. His first draft report included language that tried to capture the convergence between states on possible limits on and requirements for the design and use of AWS.²⁰ It also included language that tried to provide clarification on what compliance with international humanitarian law requires in terms of human involvement in the use of AWS (e.g. in the form of human control or human judgement).²¹ Similarly, it sought to address concerns around accountability by covering the responsibility of the state for internationally wrongful acts.²²

These proposals were the focus of intense, yet generally constructive, discussions between delegations. In their intervention, many welcomed the efforts of the chair and some delegations to find compromise language that could accommodate the spectrum of views. Russia, Cuba and, to some extent, India remained critical of most aspects of the text. They spent a significant portion of their statements questioning formalities.²³

The GGE eventually succeeded in adopting a report but at the cost of substantive conclusions.²⁴ Most of the language from the original draft had been edited out. The GGE could only find consensus on the recommendation that consideration of the different proposals should ‘intensify’ in 2023.²⁵

The fact that in 2022 the GGE was once again unable to capture in writing the progress made on substance and could not agree on a more ambitious mandate reignited the question of whether it is still the appropriate forum to address the challenges posed by AWS.²⁶

¹⁹ CCW Convention, Group of governmental experts on emerging technologies in the area of lethal autonomous weapons systems, 2022 session, 28 July 2022, UN Web TV.

²⁰ CCW Convention, Group of governmental experts on emerging technologies in the area of lethal autonomous weapons systems, Draft report of the 2022 session, CCW/GGE.1/2022/CRP.1, 29 July 2022, paras 17–18.

²¹ CCW Convention, CCW/GGE.1/2022/CRP.1 (note 20), para. 19.

²² CCW Convention, CCW/GGE.1/2022/CRP.1 (note 20), para. 20.

²³ Acheson (note 4).

²⁴ CCW Convention, Group of governmental experts on emerging technologies in the area of lethal autonomous weapons system, Report of the 2022 session, CCW/GGE.1/2022/CRP.1/Rev 1, 29 July 2022.

²⁵ CCW Convention, CCW/GGE.1/2022/2 (note 5), para. 20(a).

²⁶ Acheson (note 6).

For representatives of the campaigning group Stop Killer Robots and several countries in favour of a ban on AWS, including Chile and Mexico, there is little doubt that the CCW process has reached a dead end and that an effective ban on AWS will have to be developed elsewhere.²⁷ For them, the consensus-based decision-making practice of the CCW regime will prevent a substantive political outcome being reached in the current geopolitical situation.

While many states—in particular, major military powers such as the France, India and the United States—continued to maintain that the CCW Convention is the most appropriate forum to discuss the issue, there were two important developments outside the CCW.²⁸ In October 2022 the UN Human Rights Council adopted a resolution on the ‘Human rights implications of new and emerging technologies’, while Austria delivered a joint statement on AWS on behalf of 70 states at a meeting of the UN General Assembly’s First Committee (on disarmament and international security).²⁹ The joint statement attracted particular attention, not least because it received the support of states that have historically opposed the introduction of new legally binding rules on AWS, such as the USA. Although the statement makes clear that the immediate intent was not to start a process outside the CCW framework, it showed that there is a willingness even on the part of major military powers to move forward with the development of specific norms on AWS. This is an important prerequisite for the emergence of a new formalized intergovernmental process outside the CCW regime.

²⁷ Noor, O., ‘Russia leads an assault on progress at UN discussions, the CCW has failed’, Stop Killer Robots, 4 Aug. 2022; and Acheson (note 6).

²⁸ Nadibaidze, A., ‘Regulation and prohibition of autonomous weapon systems: A future outside the CCW?’, AutoNorms, 3 Nov. 2022.

²⁹ United Nations, Human Right Council, ‘Human rights implications of new and emerging technologies in the military domain’, Resolution 51/22, 7 Oct. 2022; and United Nations, General Assembly, First Committee, ‘Joint statement on lethal autonomous weapon systems’, Delivered by Austria, 21 Oct. 2022.