

**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**

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**Group of Governmental Experts on Emerging Technologies in the Area of Lethal Autonomous Weapons System**

Geneva, 6-10 March, and 15-19 May 2023

Item 7 of the agenda

Adoption of the report (last session only)

**Report of the 2023 session of the Group of Governmental Experts on Emerging Technologies in the Area of Lethal Autonomous Weapons Systems**

**I. Introduction**

1. The 2023 Meeting of the High Contracting Parties to the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or Have Indiscriminate Effects (hereinafter “the Convention”), held in Geneva from 16 to 18 November 2022, decided, as contained in its final report (CCW/MSP/2022/7):

- “That the work of the open-ended Group of Governmental Experts related to emerging technologies in the area of lethal autonomous weapon systems established by Decision 1 of the Fifth Review Conference as contained in document CCW/CONF.V/10, adhering to the agreed recommendations contained in document CCW/CONF.V/2, is to continue, to strengthen the Convention. In the context of the objectives and purpose of the Convention, the Group is to intensify the consideration of proposals and elaborate, by consensus, possible measures, including taking into account the example of existing protocols within the Convention, and other options related to the normative and operational framework on emerging technologies in the area of lethal autonomous weapon systems, building upon the recommendations and conclusions of the Group of Governmental Experts related to emerging technologies in the area of lethal autonomous weapon systems, and bringing in expertise on legal, military, and technological aspects.
- The rules of procedure of the Sixth Review Conference shall apply *mutatis mutandis* to the Group.
- The Group shall conduct its work and adopt its report by consensus and shall submit a report to the meeting of High Contracting Parties. The widest possible participation of all High Contracting Parties is to be promoted in accordance with the goals of the CCW Sponsorship Program.
- The Group will be chaired by Ambassador Flavio Soares Damico, Special Representative of Brazil to the Conference on Disarmament.”

2. The 2023 Meeting of the High Contracting Parties to the Convention also decided, as contained in its final report (CCW/MSP/2022/7):

“To organize in 2023, in in-person format in accordance with the regular practice under CCW, and subject to available resources, the following CCW related activities:

(...)

(b) The Group of Governmental Experts of the High Contracting Parties related to emerging technologies in the area of lethal autonomous weapons systems (LAWS), for a duration of 10 days, from 6 to 10 March 2023, and from 15 to 19 May 2023. The Meeting also adopted the relevant cost estimates for 2023 as contained in CCW/MSP/2022/5;”

3. In 2023, the Group of Governmental Experts of the High Contracting Parties related to emerging technologies in the area of lethal autonomous weapons systems (LAWS) (hereinafter “the Group”) met from 6 to 10 March, and from 15 to 19 May in Geneva. The Chair organized informal meetings on 20 February, 20 April and 2 May 2023.

## II. Organization and work of the Group of Governmental Experts

4. On Monday, 6 March 2023, the first session was opened by the Chairperson, Ambassador Flávio Soares Damico. The High Representative for Disarmament Affairs, Ms. Izumi Nakamitsu delivered a video statement. At the same meeting, the Group adopted its agenda (CCW/GGE.1/2023/1), and confirmed the Rules of Procedure, as adopted by the Sixth Review Conference (CCW/CONF.VI/11). Ms. Tania Bañuelos Mejía, Political Affairs Officer, CCW Implementation Support Unit, served as Secretary of the Meeting. Ms. Juliana Helou-van der Berg, Political Affairs Officer, CCW Implementation Support Unit, and Ms. Sophie Guillermin-Golet, Associate Political Affairs Officer, UNODA Geneva Branch, served in the Secretariat. The first session was closed on Friday 10 March 2023.

5. The second session took place on 15-19 May 2023. [...]

6. The following High Contracting Parties to the Convention participated in the work of the Group: [Algeria, Argentina, Australia, Austria, Belgium, Brazil, Bulgaria, Burkina Faso, Canada, Chile, China, Colombia, Costa Rica, Côte d’Ivoire, Cuba, Cyprus, Czech Republic, Denmark, Djibouti, Ecuador, El Salvador, Estonia, Finland, France, Georgia, Germany, Greece, Guatemala, Holy See, Hungary, India, Iraq, Ireland, Israel, Italy, Japan, Jordan, Lao People’s Democratic Republic, Luxembourg, Madagascar, Malta, Mexico, Montenegro, Netherlands, New Zealand, Norway, Pakistan, Panama, Peru, Philippines, Poland, Portugal, Qatar, Republic of Korea, Romania, Russian Federation, Saudi Arabia, Sierra Leone, Slovakia, South Africa, Spain, Sri Lanka, State of Palestine, Sweden, Switzerland, Tunisia, Türkiye, Ukraine, United Arab Emirates, United Kingdom, United States of America, Uruguay and Venezuela (Bolivarian Republic of).]

7. The following Signatory States to the Convention participated in the work of the Group: [...].

8. The following States not party to the Convention participated as observers: Angola, Iran (Islamic Republic of) and Singapore.

9. The representatives of the European Union, the International Committee of the Red Cross (ICRC) and the United Nations Institute for Disarmament Research (UNIDIR) participated in the work of the Group in accordance with the rules of procedure.

10. The representatives of the following non-governmental organizations participated in the work of the Group: [NGOs].

11. The representatives of the following entities also participated in the work of the Group: [Academia].

12. In accordance with its agenda and mandate, the Group considered the following agenda item:

“5. Intensify the consideration of proposals and elaborate, by consensus, possible measures, including taking into account the example of existing protocols within the Convention, and other options related to the normative and operational framework on emerging technologies in the area of lethal autonomous weapon systems, building upon the recommendations and conclusions of the Group of Governmental Experts related to emerging technologies in the area of lethal autonomous weapon systems, and bringing in expertise on legal, military, and technological aspects.

13. Discussion on agenda item 5 took place at its plenary meetings from 6 to 10 March 2023. From [XX] to [XX] May the Group considered its draft final report.

14. The Group considered the oral and written proposals, including those submitted as working papers and listed in Annex I. The Group expressed appreciation to the contributions of the High Contracting Parties, civil society, academia and industry.

### III. Conclusions

15. The Group recalled the decision of the Sixth Review Conference in December 2021 and by the High Contracting Parties of the Convention in November 2022 that the work of the open-ended Group of Governmental Experts related to emerging technologies in the area of lethal autonomous weapon systems established by Decision 1 of the Fifth Review Conference as contained in document CCW/CONF.V/10, adhering to the agreed recommendations contained in document CCW/CONF.V/2, is to continue, to strengthen the Convention.

16. In accordance with its mandate, and as described in the following paragraphs, in the context of the objectives and purpose of the Convention, the Group intensified the consideration of proposals and elaborated, by consensus, possible measures, including taking into account the example of existing protocols within the Convention, and other options related to the normative and operational framework on emerging technologies in the area of lethal autonomous weapons systems, building upon the recommendations and conclusions of the Group of Governmental Experts related to emerging technologies in the area of lethal autonomous weapons systems, and bringing in expertise on legal, military, and technological aspects.

17. In this regard delegations presented and discussed a number of proposals, in addition to proposals presented in previous years. Building upon its previous work and in accordance with its mandate, on the basis of the intensified consideration of proposals, the Group elaborated the following elements for possible measures and other options, without prejudice to additional measures in the future, related to emerging technologies in the area of lethal autonomous weapon systems:

18. The rules and principles of IHL apply to all weapons and methods of warfare, and are, therefore, independent from the military technology used. Thus, a technology-neutral approach that takes into account the function being performed by the technology should be applied when considering the implications of emerging technologies in the area of LAWS.

19. Possible measures and other options should address weapon systems based on emerging technologies in the area of lethal autonomous weapons systems that, once activated, are able to identify, select, track, and apply force to targets, without further human intervention.

20. The rules and principles of IHL, including inter alia distinction, proportionality and precautions in attack, must be adhered to in the development, deployment and use of weapon systems based on emerging technologies in the area of lethal autonomous weapon systems. Such weapons systems must not be deployed or used if their effects in attacks cannot be anticipated and controlled, as required by international humanitarian law in the circumstances of their use.

21. To ensure compliance with international humanitarian law, including by enabling effects in attacks to be anticipated and controlled as required in the circumstances of their use, the development and deployment of a weapons system based on emerging technologies

in the area of lethal autonomous weapons systems must include possible measures, where appropriate in the design and use of the system, to:

- (a) control, limit, or otherwise affect the types of targets that the system can engage;
- (b) control, limit, or otherwise affect the duration, geographical scope, and scale of the operation of the weapon system, including through the incorporation of self-destruct, self-deactivation, self-neutralisation or equivalent mechanisms;
- (c) provide clear procedures for trained human operators to activate or deactivate functions in weapons systems so as to enhance control or improve decision-making over the use of force, where necessary to comply with international humanitarian law in the circumstances;
- (d) ensure the system is sufficiently predictable, reliable, understandable and explainable, and traceable by assessing how the weapon system is expected to perform in the anticipated circumstances of its use, as well as reviewing the planned use of the system to ensure compliance with international humanitarian law in the circumstances of its use.

22. Human-machine interaction in the use of weapon systems based on emerging technologies in the area of lethal autonomous weapon systems must be consistent with international law, in particular international humanitarian law, including with the implementation of the principles of distinction, proportionality, and the requirement of precautions in attack.

23. Those responsible for the use of a weapons system based on emerging technologies in the area of LAWS must be in a position, where feasible, to interrupt, disable or otherwise control the system or system functions, as necessary to comply with international humanitarian law.

24. States should ensure accountability over the use of weapon systems based on emerging technologies in the area of lethal autonomous weapon systems through, *inter alia*:

- (a) the operation of those systems within a responsible chain of command and control;
- (b) designing of weapons systems so as to ensure the attribution of responsibility for the consequences of their use to individuals and States in accordance with their obligations under international law;
- (c) adequate training to users on the system's functioning, capabilities and limitations, including the types of targets it can engage and the circumstances that trigger the application of force;
- (d) relevant laws and procedures that ensure assessment and attribution of individual responsibility and appropriate accountability;
- (e) mechanisms for reporting and investigating incidents involving weapon systems based on emerging technologies in the area of lethal autonomous weapon systems that may involve violations of IHL, in accordance with States' obligations under international law.

25. Legal reviews of weapon systems based on emerging technologies in the area of lethal autonomous weapon systems must seek to assess whether they are capable of being used in conformity with applicable international humanitarian law and international, law taking into account existing capacities and capabilities. Legal reviews should consider, *inter alia*, the technical performance, intended use, and the possible tasks and types of targets, as appropriate. In this context, the exchange of relevant best practices between States could enhance adequate assessments for compliance.

26. Risk assessments and mitigation measures should aim for the system to be sufficiently predictable and reliable, allowing for an understanding of the expected consequences of using the system as may be necessary to avoid unintended engagements and to implement the requirements and principles of distinction, proportionality, and precautions in attack.

27. Risk assessment and mitigation measures should also involve consideration of the risks of unintended engagements and controls, limits, or other measures to mitigate these risks, such as to: affect the types of targets the system can engage as well as the duration, geographical scope, and scale of the operation of the system; reduce automation bias in system operators; reduce unintended bias in artificial intelligence capabilities related to the use of the weapon system.

28. States should also consider risk assessments and mitigation measures during the design, development, testing, and deployment of weapon systems based on emerging technologies in the area of lethal autonomous weapon systems. These assessments and mitigation measures could be integrated into research and development through interdisciplinary perspectives and include ethics reviews. Moreover, risk assessments and mitigation measures should involve consideration of the risks of civilian casualties and precautions to help minimize the risk of incidental loss of life, injuries to civilians, and damage to civilian objects.

29. A summary of the discussions held during the meetings of the Group, prepared under the Chairperson's responsibility, is attached to this report as Annex [II].

#### IV. Recommendations

30. The Group recommends that:

- (a) The work of the open-ended Group of Governmental Experts related to emerging technologies in the area of lethal autonomous weapon systems established by Decision 1 of the Fifth Review Conference as contained in document CCW/CONF.V/10, adhering to the agreed recommendations contained in document CCW/CONF.V/2, is to continue, to strengthen the Convention. In the context of the objectives and purpose of the Convention, the Group is to develop, by consensus, a single set of measures, including taking into account the example of existing protocols within the Convention, and other options related to the normative and operational framework on emerging technologies in the area of lethal autonomous weapon systems, building upon the recommendations and conclusions of the Group of Governmental Experts related to emerging technologies in the area of lethal autonomous weapon systems, and bringing in expertise on legal, military, and technological aspects.
- (b) The rules of procedure of the Sixth Review Conference shall apply *mutatis mutandis* to the Group.
- (c) The Group shall conduct its work and adopt its report by consensus and shall submit a report to the meeting of High Contracting Parties. The widest possible participation of all High Contracting Parties is to be promoted in accordance with the goals of the CCW Sponsorship Program.
- (d) The Group shall meet in in-person format in 2024 for [xx] days.
- (e) The Chairperson of the Group for 2024 will be confirmed by the 2023 Meeting of the High Contracting Parties, which will be held from 15 to 17 November 2023.

#### V. Adoption of the report

31. On Friday 19 May 2023, the Group adopted its final report as contained in [CCW/GGE.1/2023/CRP.2], as orally amended.

# Annex I

## List of documents

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<i>Symbol</i>	<i>Title</i>
CCW/GGE.1/2023/1	Provisional Agenda. Submitted by the Chairperson
CCW/GGE.1/2023/2	Report of the 2023 session of the Group of Governmental Experts on Emerging Technologies in the Area of Lethal Autonomous Weapons Systems
CCW/GGE.1/2023/WP.1/Rev.1	Revised working paper. Submitted by Austria
CCW/GGE.1/2023/WP.2/Rev.1	State of Palestine’s Proposal for the Normative and Operational Framework on Autonomous Weapons Systems. Submitted by the State of Palestine
CCW/GGE.1/2023/WP.3/Rev.1	Proposal for an international legal instrument on Lethal Autonomous Weapons Systems. Submitted by Pakistan
CCW/GGE.1/2023/WP.4/Rev.1	Draft articles on autonomous weapons systems – prohibitions and other regulatory measures on the basis of international humanitarian law (“IHL”). Submitted by Australia, Canada, Japan, the Republic of Korea, the United Kingdom and the United States
CCW/GGE.1/2023/WP.5	Concepts of Activities of the Armed Forces of the Russian Federation in the Development and Use of Weapons Systems with Artificial Intelligence Technologies. Submitted by the Russian Federation
CCW/GGE.1/2023/INF.1	List of participants