The Permanent Mission
of the
United States of America
to the
United Nations and other International Organizations
in Geneva

December 21, 2023

Secretariat of the Human Rights Council Advisory Committee
OHCHR - United Nations Office at Geneva
CH-1211 Geneva 10, Switzerland

To the Secretariat,

Please find enclosed the U.S. response to your letter dated September 27, 2023.

Sincerely,

Kelly Billingsley
Deputy Permanent Representative
Human Rights

Response of the United States of America:

The United States appreciates the opportunity to provide input to the Human Rights Council (HRC) Advisory Committee related to the study "examining the human rights implications of new and emerging technologies in the military domain, while taking into account ongoing discussions within the United Nations system" to be presented to the Council at its sixtieth session (September 2025) in accordance with HRC Resolution 51/22. Instead of providing individual answers to the questions posed by the Advisory Committee, the United States takes this opportunity to provide a more holistic submission explaining our views on the topics raised in the Committee's questions, with a particular focus on emerging technologies in the area of lethal autonomous weapons systems (LAWS).

International Cooperation and Dialogue

The United States robustly engages in multilateral fora regarding the lawful and responsible development, deployment, and use of new and emerging technologies in the military domain, and we encourage other States to do so as well. We also strongly support the role of international organizations, civil society, and other appropriate actors in observing and contributing to international discussions on these issues.

For example, the United States continues to engage substantively and constructively during sessions of the Group of Governmental Experts on Emerging Technologies in the area of Lethal Autonomous Weapons Systems (LAWS GGE) under the auspices of the Convention on Certain Conventional Weapons (CCW). The CCW provides a uniquely suitable forum for these discussions, given its focus on international humanitarian law (IHL) and the participation of delegations that routinely include members with military, technical, legal, and policy experience. This expertise has resulted in a significant body of work, including consensus on 11 guiding principles and multiple reports with many substantive conclusions. GGE delegations have submitted more than 15 substantive proposals, including proposals for legally binding instruments, for non-binding instruments, and other outcomes. These proposals provide a robust foundation for the future work of the LAWS GGE. In our view, the GGE continues to provide the best opportunity to advance international efforts on LAWS.

The United States welcomes the new mandate for the LAWS GGE that was adopted by consensus at the 2023 Meeting of High Contracting Parties (HCPs) to the CCW. The mandate directs the GGE to further consider and formulate, by consensus, a set of elements of an instrument, without prejudging its nature, and other possible measures to address emerging technologies in the area of LAWS. Other possible measures could include, for example, Transparency and Confidence Building Measures. Fulfilling this significant mandate will take extensive and careful work, and we welcome the decision of CCW HCPs to give the LAWS GGE ample time to complete this work.

Another example of U.S. efforts to engage in international dialogue and cooperation is the U.S.-led Political Declaration on Responsible Military Use of Artificial Intelligence and Autonomy.

Separate from, but complementary to, our efforts in the LAWS GGE, endorsing States launched this Political Declaration on November 13, 2023. This Political Declaration creates a foundation for an inclusive, international dialogue on the responsible development, deployment, and use of military AI capabilities.

The Political Declaration affirms that military use of AI must be in compliance with applicable international law, in particular IHL, and advances international dialogue by specifying concrete measures that States should implement in the military domain. In addition, the Political Declaration provides a basis for endorsing States (47 States as of December 1, 2023) to collaborate on shared technical challenges associated with the responsible development, deployment, and use of military AI capabilities, including those enabling autonomous functions and systems, such as through sharing best practices, expert-level exchanges, and capacity-building activities. Many States will face similar technical challenges implementing responsible practices, and such collaboration can enable participants to benefit from shared expertise. Finally, the Political Declaration calls on endorsing States to release appropriate information regarding their implementation of these measures, and to further engage the international community to promote these measures, which will increase transparency on their approaches toward new and emerging technologies in the military domain.

Compliance with International Law and the Centrality of International Humanitarian Law in the Military Domain

A fundamental aspect of the U.S. approach to new and emerging technologies is the general recognition that international law continues to apply to the conduct governed by it, notwithstanding the introduction of new and emerging technologies. Thus, the United States believes that compliance with applicable international law is critical as States develop and use new and emerging technologies. For example, if States use new and emerging technologies within contexts in which their international human rights law obligations apply, then they must comply with those obligations when using new and emerging technologies. The United States reiterates its view that international human rights law and international humanitarian law are in many respects complementary and mutually reinforcing. The United States recognizes that advancements in new and emerging technologies, such as advancements in the field of AI, are often being led by the private sector and that these advancements have the potential to affect many different sectors or kinds of activities. The analysis of whether or what international law applies with regard to a particular activity inevitably will be a context-specific analysis, taking into account the State's obligations, the context of the activity, and the nature of the actor, among other relevant facts and circumstances.

The United States recognizes that IHL is the *lex specialis* governing armed conflict and, as such, is the controlling body of law with regard to the conduct of hostilities and the protection of war victims. For example, as the LAWS GGE has recognized, including in Guiding Principle (a), IHL continues to apply fully with respect to all weapons systems, including the potential development and use of LAWS. The GGE has also consistently reaffirmed that "the potential use of weapons systems based on emerging technologies in the area of LAWS must be conducted in accordance with international law, in particular IHL and its requirements and principles, including inter alia distinction, proportionality and precautions in attack." *See, e.g.,* LAWS GGE 2019 report, para 17(a) (CCW/GGE.1/2019/3).

The United States believes that in addressing new and emerging technologies in the military domain, it is important for States to go beyond simply reaffirming the applicability of IHL or particular IHL rules. States should also articulate specifically how IHL applies and how IHL can be effectively implemented. In 2023, the United States, along with Australia, Canada, Japan, Poland, the Republic of Korea, and the United Kingdom, submitted a proposal to the GGE titled "Draft Articles on Autonomous Weapon Systems – Prohibitions and Other Regulatory Measures on the Basis of International Humanitarian Law ('IHL')," CCW/GGE.1/2023/WP.4/Rev.2.[1] The Draft Articles proposal follows the so-called "two-tier approach." Such an approach reflects a distinction in IHL between, on the one hand, categories of prohibited weapons and, on the other hand, regulations for the use of other weapons not categorically prohibited from use in all circumstances. The Draft Articles proposal is centered on articulating measures to effectively implement IHL and proposes new understandings and clarifications of how IHL, in particular the key principles and requirements of distinction, proportionality, and precautions in attack, apply in the context of autonomous weapon systems. The Draft Articles proposal also specifies what States need to do during development, deployment, and use of autonomous weapon systems to implement these IHL principles and requirements.

Responsibility and Accountability

With respect to questions about responsibility and accountability, the United States notes the relevance of its general view that international law continues to apply to matters within its scope, even when new and emerging technologies are involved. In particular, well-established international legal principles of State and individual responsibility continue to apply when States and persons use new and emerging technologies in the military domain. For example, under principles of State responsibility, every internationally wrongful act of a State, including such acts involving the use of new and emerging technologies in the military domain, entails the international responsibility of that State. A State remains responsible for all acts committed by persons forming part of its armed forces, including any such use of new and emerging technologies in the military domain, in accordance with applicable international law. Under applicable international and domestic law, an individual remains responsible for his or her conduct in violation of IHL. The use of new and emerging technologies does not provide a basis for excluding legal responsibility.

In the context of armed conflict, States and parties to a conflict remain responsible for meeting their obligations under IHL. These obligations are not imposed on systems, capabilities, or technologies; of course, an inanimate object could not assume an "obligation" in any event. Rather, the State, party to the conflict, or person using the new system or capability based on new and emerging technologies must comply with the applicable IHL rule, such as affirmative obligations with respect to the protection of civilians and other classes of persons. These obligations, such as the requirement to take feasible precautions in planning and conducting attacks, can be particularly relevant when States are relying on autonomous or AI capabilities, and they are assessed in light of the general practice of States. As a case in point, whether the use of a new AI system or capability reduces the risk of harm to civilians and civilian objects as compared

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[1] Australia, Canada, Japan, the Republic of Korea, the United Kingdom, and the United States also submitted a proposal to the GGE in 2022 titled "Principles and Good Practices on Emerging Technologies in the Area of Lethal Autonomous Weapons Systems" (CCW/GGE.1/2022/WP.2). This proposal was intended to transform the GGE's extensive body of past consensus work into a document that could guide State practice, strengthen the implementation of IHL, and promote responsible behavior.

to the existing means and methods of warfare that States would generally use instead of this new system or capability, would be relevant in assessing whether the use of the new system or capability would be consistent with due diligence in the implementation of the requirements and principles of distinction, proportionality, and precautions in attack.

Just as existing legal principles of responsibility continue to apply, existing mechanisms for implementing legal requirements and ensuring accountability also continue to apply, notwithstanding the introduction of new and emerging technologies in the military domain. For example, IHL obligations are implemented in military operations through responsible commands, and it is important to note that not every duty will be implemented by every individual within the command. The responsibilities of any particular individual in implementing a State or a party to a conflict's obligations under IHL may depend on that person's role in the organization or military operations, including whether that individual has the authority to make the decisions and judgments necessary to the performance of that duty under IHL. Rather than necessarily creating an accountability gap, in our view the appropriate use of new technologies could enhance accountability. For example, the use of autonomous weapon systems involving new technologies could strengthen efforts to ensure accountability over the use of force by having system logs that automatically record the operation of the weapon system. This kind of recording could facilitate investigations of both the weapon system's performance and use. This and other issues are discussed in a U.S. Working Paper, Implementing International Humanitarian Law in the Use of Autonomy in Weapon Systems, CCW/GGE.1/2019/WP.5.

"Meaningful Human Control"

We would also like to address the issue of "human control" or "meaningful human control," which was posed in the questionnaire and has been a proposal by some as a new legal standard related to the use of LAWS. The United States is opposed to this proposal for several reasons. IHL does not use the term "human control" or contain a specific requirement that weapons must be subject to "human control." In addition, the United States does not view "human control" as an end in itself. Rather, human control is a means – not the only means – that can enable compliance with IHL.

The United States also recognizes that the very purpose of using autonomy and AI is to rely on autonomous functions; the operator need not manually control the function. Thus, creating a new "human control" standard seems in tension with the purpose of using autonomy or AI. Moreover, the United States assesses that autonomy does not necessarily result in less control over the use of force. In our experience, the appropriate use of weapons with autonomous functions actually enhances control over the use of force. Weapons with advanced autonomous functions can be used more precisely and accurately in ways that increase the protection of civilians under IHL. Rather than focus on "meaningful human control" as a new legal standard, as we have consistently explained in the LAWS GGE,[2] our view is that the key underlying issue for human-machine interaction is to ensure that autonomous functions in weapons systems help effectuate the intent of human commanders and operators. In particular, we want to avoid unintended engagements, for example, the weapon system engaging civilians.

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[2] *See, e.g.,* U.S. Working Paper, Human-Machine Interaction in the Development, Deployment, and Use of Emerging Technologies in the Area of Lethal Autonomous Weapons (2018) (CCW/GGE.2/2018/WP.4).

These are complex issues that cannot be solved with simplistic labels. We think it is important to progress the multilateral discussion on autonomous weapons systems by describing in detail the measures that States should take to satisfy existing IHL requirements and to ensure the effective implementation of IHL principles. Our Draft Articles proposal in the LAWS GGE seeks to do just that. For example, our proposal provides that, during the development of weapon systems, there should be consideration of potential precautions or features to be implemented in the design and use of the system to mitigate the risk of harm to civilians and civilian objects. This includes measures to control, limit, or otherwise affect the targets that the system can engage. This also includes measures to control, limit, or otherwise affect the duration, geographical scope, and scale of the operation of the weapon system, such as the incorporation of self-destruct, self-deactivation, or self-neutralization mechanisms into munitions or the system.

Humanitarian Benefits of Autonomy and AI-Enabled Capabilities

Just as the incorporation of new and emerging technologies can strengthen and make more productive many different human endeavors, the incorporation of new AI and autonomy-related technologies in the military domain can also provide substantial benefits, including helping militaries avoid unintended engagements, strengthen their implementation of IHL, and improve the protection of civilians in armed conflict. For example, AI-enabled capabilities can improve the accurate identification of targets through, *inter alia*, sensor-fusion, reducing the risk of mistakenly targeting civilians or civilian objects. AI-enabled capabilities could also facilitate the more granular identification of targets and the more precise and accurate use of force, by enabling the neutralization of a target through strikes utilizing specific aim points and attack angles against a given target rather than merely aiming for that target as a whole.

AI-enabled capabilities can also help reduce incidental harm to civilians and civilian objects through improving the situational awareness of commanders at all levels, including their awareness of the presence of civilians and civilian objects in the area of active military operations. In addition, advanced autonomous and AI-enabled capabilities and weapons can afford commanders or operators the ability to exercise a greater degree of tactical patience (e.g., letting a given situation develop longer, permitting more information to be gathered and assessed, and permitting more precautions to be taken to protect civilians and civilian objects), before a countering strike needs to be ordered in order to neutralize the perceived threat. These and other humanitarian benefits presented by potential applications of emerging technologies are discussed in a U.S. Working Paper, "Humanitarian benefits of emerging technologies in the area of lethal autonomous weapon systems" (2018) (CCW/GGE.1/2018/WP.4).

Risks Posed by Malicious Actors

The incorporation of AI capabilities into military systems, including to enable autonomous functions, could increase existing cybersecurity vulnerabilities and introduce AI-specific vulnerabilities, such as "adversarial attacks" on machine learning models. These vulnerabilities could help malicious actors seeking to compromise the development process by stealing an AI model or training data, or to sabotage the system, such as by "poisoning" a machine learning model with corrupted training data to degrade performance. Malicious actors could also seek to exploit cybersecurity and/or AI-specific vulnerabilities in military systems during deployment and use of the system. For instance, malicious actors could seek to manipulate the sensors or actuators of an autonomous system in order to cause the system to malfunction.

The consequences of these risks range depending on the type of system but could include accidents, spoofing, or other interference that results in malfunctions, unintended engagements, or other effects that were not intended by the system operator. Malicious interference with AI development processes or training data could be particularly dangerous, as the downstream impacts could be extremely difficult to predict. In order to manage these risks, States should take a careful, principled approach to the development and deployment of these capabilities.

The concrete measures articulated in the Political Declaration on Responsible Military Use of Artificial Intelligence and Autonomy can help address risks posed by malicious actors. For example, the Political Declaration includes: (1) ensuring that military AI capabilities are developed with methodologies, data sources, design procedures, and documentation that are transparent to and auditable by their relevant defense personnel; (2) ensuring that the safety, security, and effectiveness of military AI capabilities are subject to appropriate and rigorous testing and assurance within their well-defined uses and across their entire life-cycles; and (3) implementing appropriate safeguards to mitigate the risks of failures in military AI capabilities, such as the ability to detect and avoid unintended consequences and the ability to respond, for example by disengaging or deactivating deployed systems, when such systems demonstrate unintended behavior. If effectively implemented by States, these practices would, among other benefits, help reduce the potential risks of malicious exploitation of military AI capabilities.

U.S. Department of Defense Policy and Practices,

The United States, including the U.S. Department of Defense (DoD), remains committed to developing and employing new and emerging technologies in a responsible and lawful manner. DoD adopts a proactive approach and its commitment to responsible and lawful behavior is reflected in a wide range of policies and other issuances. For example, the DoD Data, Analytics, and Artificial Intelligence Adoption Strategy, released earlier this year, emphasizes the importance of Responsible AI practices. Similarly, the DoD Responsible AI Strategy and Implementation Pathway, released last year, directs the Department's strategic approach for operationalizing the DoD AI Ethical Principles, and more broadly, advancing responsible AI efforts.

With regard to weapon systems, including autonomous weapon systems, the U.S. Department of Defense has also sought be proactive in articulating responsible behavior, first issuing in 2012, DoD Directive 3000.09, titled "Autonomy in Weapon Systems." On January 25, 2023, the Department of Defense published an update to DoD Directive 3000.09. This directive continues to provide detailed policy guidance for U.S. forces on autonomous weapon systems.

The purposes of Directive 3000.09 include seeking to minimize the likelihood and consequences of unintended engagements involving autonomous weapon systems. One way the Directive seeks to achieve this purpose is by requiring that systems be designed to allow commanders and operators to exercise appropriate levels of human judgement over the use of force. The update to the Directive contains a high degree of policy continuity in relation to the prior version, but the update also contains a number of refinements, including updates in light of the significant technological developments over the past decade.

The requirements established in the Directive include the following:

First, autonomous weapon systems, with certain exceptions, must be approved by senior DoD officials before formal development of autonomous weapon systems begins and again before

fielding. The reviews by senior DoD officials determining whether to grant such approval are holistic and context-informed assessments of individual weapon systems that include considering the concept of employment and proposed conditions of use for the weapon in question, ensuring appropriate senior-level oversight. Like any weapon, a given autonomous weapon system may be appropriate for use in one operational environment and context, but not in another.

Second, persons who authorize the use of, direct the use of, or operate autonomous and semi-autonomous weapon systems will do so with appropriate care and in accordance with the law of war, applicable treaties, weapon system safety rules, and applicable rules of engagement.

Third, autonomous and semi-autonomous weapon systems will go through rigorous hardware and software verification and validation (V&V) and realistic system developmental and operational test and evaluation (T&E). This V&V and T&E are to ensure these weapon systems function as anticipated in realistic operational environments against adaptive adversaries, and this T&E and V&V are also to ensure that these weapon systems being tested are sufficiently robust to minimize failures that could lead to unintended engagements. In addition, the Directive calls for a monitoring regime to identify and address changes in operational environment, data inputs, and use that could contribute to failures leading to unintended engagements.

Fourth, although autonomous and semi-autonomous weapon systems will not necessarily incorporate AI capabilities, for those that do make use of AI capabilities, the design, development, deployment, and use of those AI capabilities will be consistent with the DoD AI Ethical Principles and the DoD Responsible AI Strategy and Implementation Pathway.

The recent update to DoD Directive 3000.09 clarifies which autonomous weapon systems warrant the above-mentioned additional review by senior DoD officials and which systems may be developed and fielded without these additional senior-level reviews and approvals. It should be noted that these reviews by senior DoD officials under DoD Directive 3000.09, before formal development and again before fielding, are in addition to other requirements and reviews that are required by other DoD policies and processes, such as legal reviews, safety reviews, and other applicable management reviews and guidance related to the Defense Acquisition System.

References:

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- Draft Articles on Autonomous Weapon Systems – Prohibitions and Other Regulatory Measures on the Basis of International Humanitarian Law ("IHL"), CCW/GGE.1/2023/WP.4/Rev.2, submitted by Australia, Canada, Japan, Poland, the Republic of Korea, the United Kingdom, and the United States, available at https://docs-library.unoda.org/Convention_on_Certain_Conventional_Weapons_-_Group_of_Governmental_Experts_on_Lethal_Autonomous_Weapons_Systems_(2023)/CCW_GGE1_2023_WP.4_US_Rev2.pdf.

- Political Declaration on Artificial Intelligence and Autonomy in the Military Domain, available at https://www.state.gov/political-declaration-on-responsible-military-use-of-artificial-intelligence-and-autonomy/.

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