

Resolution 78/241 “Lethal autonomous weapons systems” adopted by the United Nations
General Assembly on 22 December 2023

Submission of the United States of America:

The United States appreciates the opportunity to provide its views and information about its practice to the Secretary-General in accordance with operative paragraph 2 of General Assembly Resolution 78/241 “Lethal autonomous weapons systems,” which states:

Requests the Secretary-General to seek the views of Member States and observer States on lethal autonomous weapons systems, inter alia, on ways to address the related challenges and concerns they raise from humanitarian, legal, security, technological and ethical perspectives and on the role of humans in the use of force, and to submit a substantive report reflecting the full range of views received with an annex containing these views, to the General Assembly at its seventy-ninth session for further discussion by Member States;

The United States robustly engages in discussions in multilateral fora regarding lethal autonomous weapon systems (LAWS), 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.

The United States continues to view the Group of Governmental Experts on emerging technologies in the area of lethal autonomous weapons systems (LAWS GGE), convened under the auspices of the Convention on Certain Conventional Weapons (CCW), as the best opportunity to advance international efforts on LAWS. The United States appreciates the recognition of the work of the LAWS GGE in Resolution 78/241 and sees this effort led by the Secretary-General to seek the views of Member States on this issue as a valuable opportunity to provide greater awareness of the ongoing work of the LAWS GGE, as well as to provide contributions and perspectives to inform the LAWS GGE’s work.

The LAWS GGE is a uniquely suitable forum for international work on LAWS. It is an inclusive, consensus forum in which all interested States and civil society participate. Efforts outside the GGE that do not include all interested States or that do not operate by consensus may lead to fragmentation and divergent approaches. The GGE has a clear and robust mandate to 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. This mandate clearly orients the GGE’s work towards the ultimate goal of producing an instrument.

The LAWS GGE focuses on international humanitarian law (IHL), and benefits from 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 11

guiding principles and multiple reports with many substantive conclusions that reflect the consensus of a diverse group of participating States. GGE delegations have also submitted many substantive proposals since 2022, including proposals for legally binding instruments, non-binding instruments, and other outcomes.

The United States' approach to LAWS starts with the recognition that IHL already provides the applicable framework of prohibitions and regulations on the use of LAWS in armed conflict. States should articulate specifically with regard to LAWS how IHL rules apply and how IHL requirements can be effectively implemented. To this end, the United States and a number of other States have submitted a proposal to the LAWS GGE titled "Draft Articles on Autonomous Weapon Systems – Prohibitions and Other Regulatory Measures on the Basis of International Humanitarian Law."

The U.S. Department of Defense (DoD) has also issued a policy directive on Autonomy in Weapon Systems (DoD Directive 3000.09), as well as a range of policies and other issuances to fulfill DoD's commitment to developing and employing new and emerging technologies in a responsible manner, including the DoD AI Ethical Principles, the DoD Responsible AI Strategy and Implementation Pathway, and the DoD 2023 Data, Analytics, and Artificial Intelligence Adoption Strategy. The United States has made these policies, and related resources such as a Responsible AI Toolkit, publicly available to demonstrate this commitment and encourage transparency internationally.

The United States also seeks to build international consensus around norms of responsible behavior for the development, deployment, and use of military AI and autonomy, namely through the Political Declaration on Responsible Military Use of AI and Autonomy, which is complementary to but independent from the LAWS GGE. The United States launched the Political Declaration in February 2023 to begin to build a consensus around norms of responsible behavior to ensure that military use of these technologies is responsible, ethical, and enhances international security. This Political Declaration creates a foundation for an inclusive, international dialogue and articulates ten foundational measures that apply across the full range of military applications of AI.

I. Concepts, Characteristics, and Definitions

Understanding what types of weapons are to be addressed is a central issue in the LAWS GGE's work aimed at developing an instrument and other measures. Although the United States has been of the view that adopting a working definition is not necessary for the GGE's work because IHL applies to the use of any weapon system, it has become increasingly apparent in GGE discussions that a lack of consensus about the characteristics or nature of the weapon systems in question has led to divergent perspectives about future outcomes.

A. *Definition of Autonomous Weapon System*

The U.S. military has defined “autonomous weapon system” for the purposes of its policy on Autonomy in Weapon Systems as:

A weapon system that, once activated, can select and engage targets without further intervention by an operator. This includes, but is not limited to, operator-supervised autonomous weapon systems that are designed to allow operators to override operation of the weapon system, but can select and engage targets without further operator input after activation.¹

The U.S. military developed this definition after efforts to survey U.S. military practice in using advanced weapon systems with autonomous functions. The definition is intended to describe weapons like the AEGIS Weapon System and the Phalanx Close-In Weapon System, which have been employed for decades without controversy.

B. Considering the Function Being Automated and Avoiding Obsolescence

This definition and the related definition of semi-autonomous weapon system in DoD Directive 3000.09 focus on what we believe to be the most important issue posed by the use of autonomy in weapon systems — that people who employ these weapons can rely on the weapon systems to select and engage targets.

These definitions focus on the purpose or function for which the machine is being used and do not depend on a technical characterization of the sophistication of the machine reasoning. The United States does not think it would be useful to develop a definition of LAWS based on “levels” of autonomy or to focus on particular technical criteria, which may be rendered obsolete in light of advancements in the field. As we said in a 2017 Working Paper submitted in the LAWS GGE:

Seeking to define the sophistication of the machine intelligence would incorrectly focus on the machine, rather than understanding what is important for the law — how human beings are using the weapon and what they expect it to do. For example, it is irrelevant under the law of war whether a rocket engine is powered by a solid fuel or a liquid propellant. Rather, the law of war is concerned with how that power is used in combat. Similarly, focusing on the sophistication of the “analytical engine” powering a weapon (e.g., what type of algorithm or method of machine learning is employed) risks ignoring the focus of the law — how humans will use that weapon (e.g., using the machine to select and engage targets without further intervention by a human operator).²

¹ DoD Directive 3000.09, Autonomy in Weapon Systems, January 25, 2023, available at: <https://www.esd.whs.mil/portals/54/documents/dd/issuances/dodd/300009p.pdf>.

² U.S. Working Paper, “Characteristics of Lethal Autonomous Weapons Systems,” (2017), CCW/GGE.1/2017/WP.7, available at: <https://undocs.org/CCW/GGE.1/2017/WP.7>.

In identifying characteristics, it is important not to make hasty judgments about the value or likely effects of emerging or future technologies. In particular, the United States seeks to encourage innovation and progress in developing new types of weapons that could be used with greater precision and accuracy and with less risk to civilians and civilian objects. The United States is concerned that efforts to develop new bans or restrictions on new types of weapons with autonomous functions and features will actually be counterproductive from a humanitarian perspective—impeding the development and adoption of a new generation of “smart” weaponry, while favoring the use of existing “dumb” weapons whose use may pose greater risks to civilian and civilian objects.

C. What is Different About Autonomous Weapon Systems?

Although the United States understands that LAWS are not inherently unlawful or inherently more problematic than other categories of weapons, the United States, as reflected in its policies and practices with regard to autonomy in weapon systems, recognizes that autonomous weapons are different from other categories of weapons. The ability of the operator to rely on the weapon to perform target selection and engagement functions entails differences in how IHL applies to the use of these weapons, as well as different measures to be taken during development or before fielding to support the responsible use of these weapons. As the United States has explained in the LAWS GGE:

Weapons that use autonomy in target selection and engagement seem unique in the degree to which they would allow consideration of targeting issues during the weapon’s development. For example, if it is possible to program how a weapon will function in a potential combat situation, it may be appropriate to consider the law of war implications of that programming. In particular, it may be appropriate for weapon designers and engineers to consider measures to reduce the likelihood that use of the weapon will cause civilian casualties.³

That people who employ these weapons can rely on the weapon systems to select and engage targets makes them fundamentally different from other weapons.

The key issue, as reflected in DoD Directive 3000.09 and in U.S. working papers to the LAWS GGE, is ensuring that machines help effectuate the intention of commanders and the operators of weapons systems. This is done by, *inter alia*, taking practical steps—at different stages of the weapon design, development, and deployment process—to reduce the risk of unintended engagements and to enable personnel to exercise appropriate levels of human judgment over the use of force.

³ U.S. Working Paper, “Autonomy in Weapon Systems,” (2017), CCW/GGE.1/2017/WP.6, available at: <https://undocs.org/CCW/GGE.1/2017/WP.6>.

DoD Directive 3000.09 states that one of its purposes is to establish “guidelines designed to minimize the probability and consequences of failures in autonomous and semi-autonomous weapon systems that could lead to unintended engagements.” The Directive defines “unintended engagement” as “[t]he use of force against persons or objects that commanders or operators did not intend to be the targets of U.S. military operations, including unacceptable levels of collateral damage beyond those consistent with the law of war, ROE, and commander’s intent.” For example, accidental attacks that killed civilians or friendly forces would be “unintended engagements” under DoD Directive 3000.09.

D. Appropriate Levels of Human Judgment Over the Use of Force

DoD Directive 3000.09 provides the overarching policy that “Autonomous and semi-autonomous weapon systems will be designed to allow commanders and operators to exercise appropriate levels of human judgment over the use of force.” “Appropriate” is a flexible term that reflects the fact that there is not a fixed, one-size-fits-all level of human judgment that should be applied to every context. What is “appropriate” can differ across weapon systems, domains of warfare, types of warfare, operational contexts, and even across different functions in a weapon system. Some functions might be better performed by a computer than a human being, while other functions should be performed by humans.

In some cases, less human involvement may be more appropriate. For example, in certain defensive autonomous weapon systems, such as the Phalanx Close-In Weapon System, the AEGIS Weapon System, and PATRIOT Air and Missile Defense System, the weapon system has autonomous functions that assist with the targeting of incoming missiles or other projectiles. The machine can strike incoming projectiles with much greater speed and accuracy than a human gunner could achieve manually. As weapons engineers improve the effectiveness of autonomous functions, more situations will likely arise in which the use of autonomous functions is more appropriate than manual control.

Human judgment over the use of force is distinct from human control over the weapon. For example, an operator might be able to exercise meaningful control over every aspect of a weapon system, but if the operator is only reflexively pressing a button to approve strikes recommended by the weapon system, the operator would be exercising little, if any, judgment over the use of force. Conversely, judgment can be implemented through the use of automation. For example, the extensive automation of functions in a weapon system could allow the operator to exercise better judgment over the use of force by removing the need to focus on basic tasks and to give them more time to understand the broader situation. Similarly, the use of algorithms or even autonomous functions that take control away from human operators could better effect human intentions and avoid accidents. A useful case to consider may be the Automatic Ground Collision Avoidance System developed by the U.S. Air Force that has helped prevent so-called “controlled flight into terrain” accidents. The system assumes control of the aircraft when an imminent collision with the ground is detected and returns control back to the pilot when the collision is averted.

Consistent with the foregoing approach, the United States does not use terms like “meaningful human control” in its own policies and has explained in detail why a focus on “control” would obscure rather than clarify the genuine challenges in this area.⁴

II. Compliance with International Humanitarian Law

A. *Application of IHL*

Fundamental to the U.S. approach to LAWS is our recognition that existing IHL already provides the applicable framework of prohibitions and regulations on the use of LAWS in armed conflict. IHL applies fully with respect to all weapons systems, including LAWS, used to conduct attacks in the context of an armed conflict.

IHL does not prohibit the use of autonomy in weapon systems or the use of a weapon that can select and engage a target. State practice confirms this understanding of IHL. For many decades, States have been using computers and weapons that can select and engage targets without legal controversy. This includes systems like the AEGIS Weapon System and PATRIOT Air and Missile Defense System, as well as “lock-on-after-launch” homing weapons. Far from prohibiting weapons with target selection and engagement features, IHL may be understood to encourage the use of such weapons when these weapons can be used with greater precision and accuracy and less risk to civilians and civilian objects than weapons without these “smart” features.

The GGE’s 2023 report also reflects this understanding of IHL. “Control with regard to weapon systems... is needed to uphold compliance with ... IHL, including the principles and requirements of distinction, proportionality and precautions in attack.” This control can be effectuated through software and autonomous functions, as is already the case with respect to many systems.

In discussions on LAWS, it is easy to mistakenly conclude that the weapon must comply with IHL requirements like those of distinction or proportionality. However, as the LAWS GGE concluded in its 2019 report, “IHL imposes obligations on States, parties to armed conflict and individuals, not machines.” It is not the machine but the party to the conflict or person using the autonomous weapon system that must comply with applicable IHL requirements. As explained in the DoD Law of War Manual, “[t]he law of war does not require weapons to make legal determinations, even if the weapon (e.g., through computers, software, and sensors) may be characterized as capable of making factual determinations, such as whether to fire the weapon or to select and engage a target.”

⁴ Further discussion of this point and other concepts are provided in a U.S. Working Paper, “Human- Machine Interaction in the Development, Deployment and Use of Emerging Technologies in the Area of Lethal Autonomous Weapon Systems” (2018), CCW/GGE.2/2018/WP.4, available at: <https://undocs.org/CCW/GGE.2/2018/WP.4>.

Although nothing in IHL prohibits relying on automation or tools to help accomplish tasks in the conduct of hostilities, such reliance is subject to requirements like good faith and due diligence in the implementation of applicable IHL rules, as discussed below. In addition, parties to a conflict continue to have 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 capabilities.

The United States has stressed in the LAWS GGE that it is important to go beyond simply reaffirming the applicability of IHL or particular IHL rules. States should also articulate specifically with regard to LAWS how IHL rules apply and how IHL requirements can be effectively implemented. To help further that objective, the United States has developed and submitted to the LAWS GGE, along with the Australia, Canada, Japan, Poland, the Republic of Korea, and the United Kingdom, a proposal titled “Draft Articles on Autonomous Weapon Systems – Prohibitions and Other Regulatory Measures on the Basis of International Humanitarian Law (‘IHL’),”⁵ (hereinafter, the “Draft Articles”).⁶ The Draft Articles specify prohibitions and other regulatory measures for States to implement to effectively satisfy IHL requirements in armed conflict.

The Draft Articles proposal follows the “two-tier approach” widely supported by States in the LAWS GGE, which reflects a distinction in IHL between categories of weapons that are by their nature prohibited, on the one hand, and regulations for the use of other weapons not categorically prohibited from use in all circumstances, on the other hand.

The Draft Articles first articulate measures to prevent autonomous weapon systems that, by their nature, are incapable of use in accordance with IHL. For example, the Draft Articles provide that:

1. Autonomous weapon systems must not be designed to:
 - (a) target civilians or civilian objects, or to spread terror among the civilian population;
 - (b) conduct engagements that would invariably result in incidental loss of civilian life, injury to civilians, and damage to civilian objects excessive in proportion to

⁵ 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, 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](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).

⁶ 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.

the concrete and direct military advantage anticipated; or
(c) conduct engagements that would not be the responsibility of the commanders and operators using the system.

The Draft Articles also explain that:

1. IHL requires that the use of LAWS to conduct attacks be consistent with the principles and requirements of distinction, proportionality, and precautions in attack.
2. A combatant's reliance on autonomous functions to identify, select, or engage targets:
 - (a) must be in good faith and in light of the information available at the time;
 - (b) must be consistent with due diligence in the implementation of the requirements and principles of distinction, proportionality, and precautions in attack, under which the lawfulness of such reliance may depend on, *inter alia*: (i) the expected performance of the autonomous function; (ii) the alternatives, consistent with customary military practice, to relying on the autonomous function; and (iii) the urgency of the situation.

The Draft Articles also articulate important IHL principles and requirements applicable to attacks involving the use of autonomous weapon systems. The following elements reflect aspects of the Draft Articles, although more detail is presented in the Draft Articles:

- *Distinction*: To ensure effective implementation of the principle of distinction in attacks involving the use of autonomous weapon systems, commanders and operators must have the intention of striking specific or potential targets that constitute military objectives or of operating the system within specific locations constituting military objectives to deny enemy forces access to such locations.
- *Proportionality*: To ensure effective implementation of the principle of proportionality in attacks involving the use of autonomous weapon systems, a commander must not direct or authorize subordinates to use the weapon system when the commander has assessed that the expected loss of civilian life, injury to civilians, and damage to civilian objects incidental to the use of the weapon system will be excessive in relation to the concrete and direct military advantage anticipated.
- *Precautions in Attack*: To ensure effective implementation of the requirement to take feasible precautions in planning and conducting attacks involving the use of autonomous weapon systems, commanders and planners need to assess what precautions are feasible in the circumstances of using autonomous weapon systems, which may include: adjusting the locations where or times when systems operate to reduce the likelihood of civilians being present; giving warnings that enable steps to reduce the danger to civilians, such as avoiding locations where systems are operating; monitoring the

operation of the weapon systems; and other choices in the size and type of munitions and in the operation of the weapon systems to reduce the danger to civilians and civilian objects, while offering the same or superior military advantage.

B. *Responsibility and Accountability*

With respect to questions about responsibility and accountability, the United States reaffirms 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 autonomous weapon systems. For example, under principles of State responsibility, every internationally wrongful act of a State, including such acts involving the use of autonomous weapon systems, 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 autonomous weapon systems, in accordance with applicable international and domestic law. Under applicable international and domestic law, an individual remains responsible for his or her conduct in violation of IHL. The use of autonomous weapon systems does not provide a basis for excluding legal responsibility.

Notwithstanding the introduction of new and emerging technologies in the military domain, just as existing legal principles of responsibility continue to apply, existing mechanisms for implementing legal requirements and ensuring accountability also apply. For example, IHL obligations are implemented in military operations through responsible commands, and 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 perform that duty under IHL. Rather than creating an accountability gap, the appropriate use of new technologies could enhance accountability. For example, the use of LAWS involving new technologies could strengthen efforts to ensure accountability by having system logs that automatically record the operation of a weapon system. This kind of recording could facilitate investigations of both the weapon system's performance and use.⁷

The Draft Articles also articulate regulatory measures to ensure comprehensive accountability for the use of autonomous weapon systems, including:

States should provide with respect to their autonomous weapon systems:

⁷ See U.S. Working Paper, *Implementing International Humanitarian Law in the Use of Autonomy in Weapon Systems* (2019), CCW/GGE.1/2019/WP.5, available at: [https://docs-library.unoda.org/Convention_on_Certain_Conventional_Weapons_-_Group_of_Governmental_Experts_\(2019\)/CCW_GGE.1_2019_WP.5.pdf](https://docs-library.unoda.org/Convention_on_Certain_Conventional_Weapons_-_Group_of_Governmental_Experts_(2019)/CCW_GGE.1_2019_WP.5.pdf).

- (a) Readily understandable human-machine interfaces and controls;
- (b) Guidance (*e.g.*, policies, doctrine, and procedures), consistent with applicable IHL, for personnel regarding the proper use of the weapon system;
- (c) Training of personnel to understand such guidance and the capabilities and limitations of the weapon system's autonomous functions in the anticipated circumstances of its use; and
- (d) Appropriate rules of engagement or other directives or orders circumscribing the use of the weapon system in military operations, consistent with applicable IHL.

C. Using IHL Principles to Address Novel Ethical or Policy Questions Related to LAWS

The U.S. military has long used the fundamental principles of IHL as a general guide for conduct during war, if no more specific rule applies. These principles are: military necessity, humanity, distinction, proportionality, and honor. The practice of resorting to the fundamental principles of IHL even though specific rules might not apply is codified in the so-called "Martens Clause." First included in the Preamble to the 1899 Hague Convention II with Respect to the Laws and Customs of War on Land, the clause is also included in a common article to the 1949 Geneva Conventions, which states that denunciation of the Convention "shall in no way impair the obligations which the Parties to the conflict shall remain bound to fulfil by virtue of the principles of the law of nations, as they result from the usages established among civilized peoples, from the laws of humanity and the dictates of the public conscience."

In addition to helping assess whether a new weapon falls under a legal prohibition, the fundamental principles of IHL may also serve as a guide in answering novel ethical or policy questions in human-machine interaction presented by emerging technologies in the area of LAWS. For example, if the use of a new technology advances the universal values inherent in IHL, such as the protection of civilians, then the development or use of this technology is likely to be more ethical than refraining from such use or such development. Consistent with this approach, the LAWS GGE recognized in its 2019 report that, in cases involving weapons systems based on emerging technologies in the area of LAWS not covered by the CCW 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.

III. Humanitarian Benefits of New and Emerging AI and Autonomy-Related Technologies

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. One of the GGE's guiding principles, which have also been endorsed by High Contracting Parties to the CCW, reflects this idea, providing that

“[c]onsideration 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.”

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 2018 U.S. Working Paper, “Humanitarian benefits of emerging technologies in the area of lethal autonomous weapon systems.”⁸

IV. Potential Security Risks and Challenges

Some have argued that LAWS pose risks to international peace and security, such as risks of proliferation, destabilization, or unintended escalation. From the U.S. perspective, it seems premature to draw conclusions that autonomous weapon systems will lead to escalation of conflict or other negative security-related consequences, especially when autonomous weapon systems have been deployed for many years by responsible States without leading to such consequences.

If a State is not rigorous and responsible in developing and deploying autonomous weapon systems, then that State very well may deploy capabilities that result in unintended consequences—potentially including unintended escalation—whether because they are poorly designed, inadequately tested, or operators do not possess an adequate understanding of the capabilities and limitations of those systems.

⁸ U.S. Working Paper, “Humanitarian benefits of emerging technologies in the area of lethal autonomous weapon systems,” (2018), CCW/GGE.1/2018/WP.4, available at [https://docs-library.unoda.org/Convention_on_Certain_Conventional_Weapons_-_Group_of_Governmental_Experts_\(2018\)/CCW_GGE.1_2018_WP.4.pdf](https://docs-library.unoda.org/Convention_on_Certain_Conventional_Weapons_-_Group_of_Governmental_Experts_(2018)/CCW_GGE.1_2018_WP.4.pdf).

On the other hand, when States are responsible and prudent in developing and deploying autonomous weapon systems, these capabilities may very well enable States to better reduce the likelihood of conflict. For example, autonomous weapon systems that disable incoming adversary attacks and protect civilian populations can enable more time for a deliberate response that results in a de-escalation of conflict, rather than a State needing to respond immediately in self-defense. Similarly, the use of unmanned platforms, which when destroyed do not involve the loss of human life, can also lessen a perceived need to respond to an incident, and afford greater opportunities for de-escalation.

Given that prudent and responsible use of autonomous weapon systems can help address security risks, the United States has not been persuaded by arguments that specific new arms control measures are needed to address security concerns associated with LAWS.

V. Military Use of AI Systems Beyond LAWS

Complementary to but separate from the LAWS GGE, another ongoing international effort in the realm of military use of AI is the Political Declaration on Responsible Military Use of Artificial Intelligence and Autonomy. The United States launched the Political Declaration in February 2023 to begin to build a consensus around norms of responsible behavior to ensure that military use of these technologies is responsible, ethical, and enhances international security.

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 dedicated government-to-government forum for endorsing States (more than 50 States as of May 2024) 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 promote stability by increasing transparency on their approaches toward new and emerging AI and autonomy-related technologies in the military domain.

The Political Declaration is a practical, solutions-oriented initiative. The concrete measures articulated in the Political Declaration can help address the potential risks associated with military AI capabilities, including those enabling autonomous functions. 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.

VI. U.S. Department of Defense Policy and Practices

As noted above, DoD has been proactive in articulating its policy framework for the responsible development and use of autonomous functions in weapon systems, issuing DoD Directive 3000.09, titled “Autonomy in Weapon Systems,” in November 2012 and updating it in January 2023. This directive provides detailed policy guidance on the development and fielding of autonomous and semi-autonomous weapon systems by DoD. This policy fits within a broader framework of U.S. military policies that reflect the U.S. commitment to developing and employing new and emerging technologies in a responsible and lawful manner.⁹

The January 2023 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 begins and again before fielding. These reviews by senior DoD officials 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 of the decision to enter formal development or field the weapon. 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 are to do so with appropriate care and in accordance with the law of war, applicable treaties, weapon system safety rules, and applicable rules of engagement.

⁹ For example, the DoD Data, Analytics, and Artificial Intelligence Adoption Strategy, released November 2023, emphasizes the importance of Responsible AI practices. Similarly, the DoD Responsible AI Strategy and Implementation Pathway (RAI S&I Pathway), released June 2022, directs the Department’s strategic approach for operationalizing the DoD AI Ethical Principles, and more broadly, advancing responsible AI efforts. The RAI Toolkit, released November 2023, is a key deliverable of the RAI S&I Pathway providing a voluntary process that identifies, tracks, and improves the alignment of AI projects toward RAI best practices and the DoD AI Ethical Principles, while capitalizing on opportunities for innovation.

- *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 is to ensure these weapon systems function as anticipated in realistic operational environments against adaptive adversaries, and it is also to ensure that these weapon systems being tested are sufficiently robust to minimize the likelihood of 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 incorporate 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 January 2023 update to DoD Directive 3000.09 also 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. These reviews by senior DoD officials under DoD Directive 3000.09, conducted before formal development and again before fielding, are in addition to requirements and reviews under other DoD policies and processes, such as legal reviews, safety reviews, and other applicable management reviews and guidance related to the Defense Acquisition System.

VII. The Path Forward on LAWS

The United States believes the LAWS GGE continues to provide the best opportunity to meaningfully and substantively advance international efforts on LAWS. The United States is strongly opposed to any efforts to create parallel initiatives that would prejudge or seek to undermine the centrality of the LAWS GGE in making progress on the issue. However, other forums, such as the UN General Assembly or regional conferences, such as those hosted by Austria, Costa Rica, Luxembourg, the Philippines, Sierra Leone, and Trinidad and Tobago, can make valuable contributions to the work of the GGE through helping to build common understanding. In addition, the U.S.-led Political Declaration process can help address overarching issues on responsible military use of AI and autonomy, complementing and supporting the work of the LAWS GGE.

While we have carefully considered calls and proposals for an immediate beginning to negotiations on a legally binding instrument on LAWS, we do not believe the time is right for such an endeavor. Rather than begin a negotiation, the GGE should continue work on clarifying how existing IHL principles and requirements apply to the use of LAWS and then identify whether any legal gaps exist that need to be addressed. As mentioned previously, the Draft

Articles submitted in the GGE in 2023 by the United States, along with six other States, remain the best vehicle to facilitate this progress. The Draft Articles focus on proposing understandings and clarifications of how IHL rules apply to LAWS and on articulating measures to effectively implement IHL requirements. This work is necessary both for the effective implementation of existing IHL requirements and for responsibly assessing whether new legal rules are warranted.

The GGE's current mandate, adopted in November 2023, gives the GGE direction "to 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 lethal autonomous weapon systems." 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 High Contracting Parties to give the LAWS GGE ample time to complete this work. The first session of the GGE under this mandate, held in Geneva in March 2024, saw participants engaging constructively in a substantive dialogue on the issues central to fulfilling the GGE's mandate. While divergences remain on many key issues, areas of commonality continue to emerge, and we believe that continued substantive and constructive work by GGE participants will result in a significant deliverable at the end of the current GGE mandate.

The United States believes the Secretary-General's report, for which we are submitting our views here, could provide a valuable contribution to progress on LAWS by bolstering efforts to find consensus on elements and measures in the LAWS GGE. In order to achieve that aim, the report should be balanced and inclusive of the views of all UN Member States and should take a pragmatic perspective on opportunities for progress by consensus in the LAWS GGE. We look forward to reviewing the other submissions by both States and civil society organizations and the full report by the Secretary-General.

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