

Submission on Lethal Autonomous Weapon Systems to the United Nations Secretary-General by the Geneva Centre for Security Policy

The Geneva Centre for Security Policy is an international foundation with 30 years of experience in the fields of peace and security. Through dialogue, executive education, and research it endeavours to contribute to building a more peaceful world. In the face of a worsening global security environment, the GCSP is concerned about the role that emerging technologies can play in exacerbating, and creating, international security issues. Pursuant to resolution 78/241 “Lethal autonomous weapon systems”, adopted by the General Assembly on December 22nd, 2023, the GCSP makes this submission leveraging its research activities in the area of international security, disarmament, and emerging technologies as well as inputs from expert contributors. It reflects some of the GCSP’s key concerns with regards to the trajectory of both the development and deployment of Lethal autonomous weapon systems (LAWS) and of related regulatory efforts.

1. Global conflicts are accelerating the development of LAWS, with potentially severe strategic consequences

First and foremost, the GCSP wishes to stress the urgency of the task at hand. The past 10 years have brought little by way of international regulatory frameworks on LAWS but have brought us increasingly close to the full realisation of these weapon systems. While highly autonomous weapon capabilities remained relatively over the horizon in 2014, they are today close to being a technological reality. In effect, in 2024, the gap between the speed and progress of governance and that of technology is widening. The technological hurdles to the realisation of LAWS which existed in the past decade, allowing time for slow regulatory discussions to take place, are now fast disappearing. As of today, the technology for a weapon to track, select, and engage a target autonomously after the point of activation, with no further human intervention, already exists.¹ It remains unclear— and unlikely — however, that weapon systems exhibiting high levels of autonomy and AI-enabled capabilities have been *used* in a “fully” autonomous way, selecting and engaging targets without human intervention. Irrespective of this, whether or not current capabilities neatly fit within an agreed upon definition of “LAWS”, or whether or not every stage of the weapon’s cycle was completely fully

¹ O’Neill, Paul, Cranny-Evans, Sam, Ashbridge, Sarah. “Assessing Autonomous Weapons as a Proliferation Risk: The Future has Not Been Written.” *Royal United Services Institute*. February 2024. <https://static.rusi.org/future-laws-occasional-paper-feb-2024.pdf>



autonomous should not detract from the reality that increasingly autonomous weapon systems (with and without AI) are already on today's battlefields, and are raising many of the legal, ethical, and security concerns posed by LAWS.²

Furthermore, technological advancements in this space are being accelerated by a worsening global security environment and the ensuing technological competition it generates. Unfortunately, LAWS are not only technologically possible today, but the opportunities for their use are also multiplying.³ The war in Ukraine for example, is massively increasing interest in autonomous capabilities, as well as accelerating the fielding of various unmanned, increasingly autonomous, and AI-enabled capabilities, which have become a key feature of the conflict.⁴ Moreover, reporting on the war in Gaza shows that current AI-enabled targeting systems such as *Lavender* and *Gospel* already raise many of the legal and ethical concerns linked to autonomy on the battlefield, posing questions over automation bias and human control and agency over the use of force.⁵

The proliferation of such capabilities and their – mostly dual-use – enabling technologies has resulted in a fundamentally changed strategic environment compared to when international discussions began in 2014. A wider array of state and non-state actors are now capable of developing and deploying increasingly autonomous capabilities, and increasingly willing to do so. Absent regulation, and a global governance framework, the current strategic environment will increasingly incentivise and accelerate the development and deployment of such weapon systems, leaving an increasingly small space for regulation. In 2024, technological realities coupled with the current deteriorated global strategic environment have worsened the consequences of inaction with respect to the regulation of LAWS.

2. The question of human control

The need for human control over weapon systems, especially in the application of force, is central to the issue of LAWS. Indeed, it has now become a well-established norm that human control is a necessary component of both LAWS' ethical and safety dimensions, and of their legal compliance, especially with regards to IHL.⁶ However, lack of agreement persists behind what is meant by "human control", what it looks like in practice, and what amounts to sufficient

² Rickli, Jean-Marc, Mantellassi, Federico. "The War in Ukraine: Reality Check for Emerging Technologies and the Future of Warfare." *Geneva Centre for Security Policy*. Geneva Paper No. 34. April 2024. <https://dam.gcsp.ch/files/doc/geneva-paper-34-24>

³ *Ibid.*

⁴ *Ibid.*

⁵ Renic, Niel, Schwarz, Elke. "Crimes of Dispassion: Autonomous Weapons and the Moral Challenge of Systematic Killing." *Ethics and International Affairs*. Vol 37 (3). 2023, pp. 321-343. <https://doi.org/10.1017/S0892679423000291>; Davies, Harry, McKernan, Bethan, Sabbagh, Dan. "'The Gospel': How Israel uses AI to select bombing targets in Gaza." *The Guardian*. December 1, 2023. <https://www.theguardian.com/world/2023/dec/01/the-gospel-how-israel-uses-ai-to-select-bombing-targets>

⁶ Report of the 2023 session of the Group of Governmental Experts on Emerging Technologies in the Area of Lethal Autonomous Weapons Systems, 24 May 2023, GGE.1/2023/2, [https://docs-library.unoda.org/Convention_on_Certain_Conventional_Weapons_-_Group_of_Governmental_Experts_on_Lethal_Autonomous_Weapons_Systems_\(2023\)/CCW_GGE1_2023_2_Advance_version.pdf](https://docs-library.unoda.org/Convention_on_Certain_Conventional_Weapons_-_Group_of_Governmental_Experts_on_Lethal_Autonomous_Weapons_Systems_(2023)/CCW_GGE1_2023_2_Advance_version.pdf)



levels of it. This lack of clarity is one of the biggest challenges to building effective regulatory frameworks and an important area to elucidate for the ethical, safe, and legally compliant development and deployment of autonomy on battlefields.

The expressed intent by states to ensure human control over LAWS and their effects, could run counter to the desire to accelerate the tempo of military operations and to increasingly rely on complex algorithms to enable the various functions of LAWS. Indeed, chief among the reasons behind the development of LAWS is the desire to accelerate decision-making processes so as to outperform adversaries.⁷ It is generally understood that armed forces' desire to collect, analyse and act on information ever faster, could lead to an acceleration of the tempo of war. It is therefore not unreasonable to envision a near-future where humans can no longer realistically maintain the contextual understanding, cognitive and physical abilities necessary for meaningful control of weapon systems.⁸ Research has repeatedly shown that humans have a tendency to place undue confidence in machine suggestions and behaviours - and tend to offload their cognitive and moral loads to machines, especially ones with high degrees of autonomy.⁹ This process is exacerbated by high levels of stress and cognitive workload, compressed timelines, and the levels of autonomy of a machine.¹⁰ As states increasingly turn to complex AI systems to enable LAWS, the capacity for humans to be meaningfully engaged will increasingly be challenged.

Control extends beyond the physical ability of humans to approve or stop a weapon system's actions. It is therefore primordial for states to define the processes, rules, as well as technical requirements, which would enable effective human control over LAWS. This should include a clarification as to what restrictions in design, capabilities, and operational parameters this would inevitably entail. Absent these clarifications, states could resort to instances of so-called "nominal human control", or measures of performative control which do not, in reality, act as an effective failsafe against the pitfalls of machine autonomy. The international community must contend with this issue in a more serious manner and seek to answer the questions of how humans can really remain in control of such weapon systems and which characteristics, capabilities, and use cases make a weapon system fall outside this ability. *In fine*, this would allow for the maintaining of moral and ethical agency over LAWS and ensure their safe, legally compliant, development and use.

⁷ Scharre, Paul. "The Perilous Coming Age of AI Warfare." *Foreign Affairs*. February 29, 2024. https://www.foreignaffairs.com/ukraine/perilous-coming-age-ai-warfare?check_logged_in=1

⁸ Schwarz, Elke. "The (im)possibility of meaningful human control for lethal autonomous weapon systems." *Humanitarian Law and Policy*. August 29, 2018, <https://blogs.icrc.org/law-and-policy/2018/08/29/im-possibility-meaningful-human-control-lethal-autonomous-weapon-systems/>

⁹ Johnson, James. "Automating the OODA Loop in the Age of Intelligent Machines: Reaffirming the Role of Humans in Command-and-Control Decision-making in the Digital Age", *Defence Studies*, Vol.23(1), 2023, pp.43-67, <https://doi.org/10.1080/14702436.2022.2102486>.

¹⁰ Schwarz, Elke. "The (im)possibility of meaningful human control for lethal autonomous weapon systems." *Humanitarian Law and Policy*. August 29, 2018, <https://blogs.icrc.org/law-and-policy/2018/08/29/im-possibility-meaningful-human-control-lethal-autonomous-weapon-systems/>



3. The way forward

The United Nations Secretary General and the President of the International Committee of the Red Cross (ICRC) have called on world leaders to “launch negotiations of a new legally binding instrument to set clear prohibitions and restrictions on autonomous weapon systems and to conclude such negotiations by 2026.”¹¹ The most realistic way of achieving this is through the Group of Governmental Experts (GGE) created by the High Contracting Parties to the Convention on Certain Conventional Weapons (CCW). There is agreement in the GGE that LAWS that cannot be used in compliance with international humanitarian law must not be used and those that can be, should be regulated. This so-called two-tier approach offers the most realistic chance of achieving at least the first tier (a legally binding prohibition) in the relatively near future. The GGE should be given the opportunity to use its current mandate to agree on recommendations for a legally binding instrument. Yet, so far, the requirement of consensus has prevented it from achieving any meaningful agreement or binding recommendations.

Alongside the work of the GGE, states must continue to speak, exchange, and pronounce on the broader issue of the use of artificial intelligence in the military domain. Dialogue at the regional, plurilateral, and bilateral level about how humans can remain in control of weapon systems will be important confidence building measures. Exchanges of best practice on how to develop compliant systems will also be needed. Some states or groups of states have already made political declarations about ensuring effective human control over weapon systems. Operationalising these declarations through regular meetings of signatories could help develop codes of conduct and guardrails. The UN should support these endeavours, for example through its regional disarmament centres. It could also act as bridge to the other discussions on AI governance, helping to bring across ideas relevant to the disarmament and international security community.

Resolution 78/241 creates the possibility of a new track on LAWS. If the GGE fails to reach consensus on a legally binding instrument, then it is likely that a large majority of states will support starting negotiations in the General Assembly. Creating a parallel process now, whilst the GGE is still working, is unlikely to achieve the desired outcome of a legally binding prohibition ratified by all the major states. The UNGA undoubtedly has a role to play now though. The UNSG could consider recommending an annual First Committee thematic session devoted to the military use of AI. Given the importance of the issue and the fact that it will be a key topic for years to come, the UNSG could also consider recommending an eighth cluster for First Committee, entitled ‘The use of artificial intelligence in the military domain’. This would allow states to bring other resolutions on the topic, as the issue is broader than just LAWS.

¹¹ “UN Secretary-General, President of International Committee of Red Cross Jointly Call for States to Establish New Prohibitions, Restrictions on Autonomous Weapon Systems.” October 5, 2023. [UN Secretary-General, President of International Committee of Red Cross Jointly Call for States to Establish New Prohibitions, Restrictions on Autonomous Weapon Systems | Meetings Coverage and Press Releases](#)