European Parliament report on "Human rights implications of the usage of drones and unmanned robots in warfare," May 2013

Synopsis prepared by the Campaign to Stop Killer Robots
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Summary

In May 2013 the European Parliament issued a study into the human rights implications of the usage of drones and unmanned robots in warfare that includes some findings on fully autonomous weapons. The 54-page study is available in PDF at: http://bit.ly/125ZQWS.

The study finds that "[f]or the foreseeable future … any application of military force through armed drones must necessarily remain under the control of a human operator."

It recommends that the European Union (EU) launch an intergovernmental consensus-building process including experts meetings "to achieve broader international consensus … on the legal constraints and/or ethical reservations" with respect to "the future development, proliferation and use of increasingly autonomous weapon systems."

The study was prepared by the European Parliament's Directorate-General for External Policies (DROI) at the request of the Parliament's Subcommittee on Human Rights. It was written by Dr. Nils Melzer of the Geneva Centre for Security Policy and Swiss Chair of International Humanitarian Law at the Geneva Academy.

The Campaign to Stop Killer Robots acknowledges the study's finding that "any application of military force through armed drones must necessarily remain under the control of a human operator." The campaign urges all EU member states to endorse and implement the report's recommendation to launch an EU process aimed at achieving an international legal framework to address fully autonomous weapons.

This document presents the main extracts of the study with respect to fully autonomous weapons.

Relevant Extracts

In the section on "Current and Future Degree of Operational Autonomy," the report finds that "for the foreseeable future, the lawful application of military force through armed drones will always require the direct involvement of a human controller." (Page 11)

On the state of technology, the study reports:

> For the time being, no currently operational drone can reliably distinguish between legitimate military targets and civilian persons and objects, take precautions to avoid erroneous targeting, or assess the proportionality of expected collateral civilian harm. In order to become fully autonomous robots, drones would have to be equipped with highly accurate and discriminative sensing and vision systems capable of reliably identifying intended targets based on very limited and often misleading information. Moreover, a fully autonomous drone-robot would need "situational awareness" enabling it to evaluate an extremely complex set of unpredictable circumstances and, through independent reasoning, come to an appropriate conclusion in line with its mission goals, applicable law and underlying military and humanitarian values. As has been pointed out, such fully autonomous robotic systems belong to the realm of "hope ware" rather than software and, save for a technological quantum leap, are unlikely to become reality for several decades to come.[32] (Page 10)

The study also examines human "on-the-loop" weapons and finds:

> Even intermediate human-supervised systems, in which autonomous targeting decisions taken by drones can be overridden by a human controller ("man on the loop"), can be problematic in practice. First, the technological challenges to autonomous target identification and selection are essentially the same and, second, such systems generally require the human controller to decide within a few seconds or less on the appropriateness of an extremely complex robotic targeting decision without being able to sufficiently review, process and understand the underlying data.[33] (Page 11)

In the "Summary and Outlook" section, the study acknowledges the trend towards autonomy in warfare and weapons systems:

> Today, unmanned robots have been introduced in all domains of warfare, and there is a clear trend towards increasing the operational autonomy of such systems in the future. In its "Unmanned Systems Integrated Roadmap FY2011-2036", the US Department of Defence formulates the following vision for the armed services of all domains. (Page 13)

In a section on "Drone Technology and Weapons Law," the study finds that:

> Without any doubt, from a technological point of view, attacks by human-controlled drones ("man in the loop") can be directed at specific military objectives and, in principle, the effects of such attacks on the target and the civilian population can be limited as required by humanitarian law. Therefore, currently operational armed drones do not, as such, constitute an indiscriminate means of warfare prohibited under humanitarian law. (Page 27)

But the study finds that in fully autonomous mode, "current drone technology would be incapable of complying with the law of targeting and, consequently, would

constitute an indiscriminate weapon system prohibited under humanitarian law." The study explains:

> A different conclusion would have to be reached for the use of armed drones in a fully autonomous mode, in which armed drones would make targeting decisions without human intervention. As pointed out earlier, no currently operational armed drone even comes close to being capable of reliably distinguishing between civilian persons and legitimate military targets, of taking the necessary precautions to avoid erroneous targeting, or of assessing the proportionality of expected collateral civilian harm. While current target recognition systems may be capable of automatically detecting certain types of military objectives, such as hostile weapon systems and communications networks, attacking such targets would always require additional precautionary measures, including a proportionality assessment, which can only be carried out by a human operator. Even in exceptional circumstances, where the area of operations is such that no civilian harm must be expected (e.g. large military formations in a desert or a maritime environment), fully autonomous drones still lack the capability of identifying enemy personnel entitled to protection against attack, such as medical and religious personnel, and combatants hors de combat. In sum, if used in a fully autonomous mode, current drone technology would be incapable of complying with the law of targeting and, consequently, would constitute an indiscriminate weapon system prohibited under humanitarian law.[126] For the foreseeable future, therefore, any application of military force through armed drones must necessarily remain under the control of a human operator.(Page 28)

The necessary requirement for armed drones to "remain under the real-time control of a human operator" is repeated again in the "Drone Attacks as a Means of Warfare" section:

> [C]urrent drone technology does not, as such, raise any particular concern, provided that attacks are conducted under the real-time control of a human operator and do not otherwise involve the use of unlawful weapons. This assessment would almost certainly be reversed if armed drones were to be use in a fully autonomous mode. Without a veritable quantum leap in technological development, armed drones will remain incapable of autonomously making the distinctions, assessments and judgements required by the law of targeting. As a consequence, if used in a fully autonomous mode, armed drones would constitute an inherently indiscriminate weapon system prohibited under humanitarian law. For the foreseeable future, therefore, any use of force through armed drones must necessarily remain under the real-time control of a human operator. (Page 34)

The study finds that "Armed robots are not, of course, persons or entities capable of acting for or against a State in a human sense, but they are machines being used by humans as weapons." "[I]t is conceivable that the use of fully autonomous robots may result in unintended violations of international law." (Page 39)

The study contains three recommendations, of which the second relates to fully autonomous weapons:

> Intergovernmental Consensus Building Process: In parallel, the EU should launch a broader intergovernmental policy dialogue, supported by a series of legal and technical expert meetings or committees, aiming to achieve broader international consensus: (a) on the international legal standards governing the use of currently operational unmanned weapon systems, and (b) on the legal constraints and/or ethical reservations which may apply with regard to the future development, proliferation and use of increasingly autonomous weapon systems. In order for this consensus-building process to be perceived as legitimate, it should be conducted in a transparent and inclusive manner, involving not only States but also drawing on the valuable experience and expertise of concerned industries, relevant multinational institutions, civil society organizations and academia. (Pages 44-45)

The study is available online at:
http://www.europarl.europa.eu/committees/en/droi/studiesdownload.html?languageDocument=EN&file=92953

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