

Article 36 reviews and addressing Lethal Autonomous Weapons Systems

Briefing paper for delegates at the Convention on Certain Conventional Weapons (CCW) Meeting of Experts on Lethal Autonomous Weapons Systems (LAWS)

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Introduction

For the CCW's informal meeting of experts on LAWS, this briefing paper looks at national level legal reviews of new weapons, means and methods of warfare under the framework of article 36 of Additional Protocol I to the Geneva Conventions, in the context of international discussions on autonomous weapons systems.

A number of states have suggested that action around national legal reviews could constitute a basis for addressing the serious concerns that LAWS raise, as articulated by states, international organisations and civil society. Attention to improving and widening the implementation of weapons reviews, and states' sharing of their procedures, is welcome and necessary. This paper provides an analysis suggesting that national reviews are, however, insufficient to deal with LAWS. It argues that multilateral agreement is essential in this area in order to provide clear boundaries for all states on technologies and practices that would fundamentally alter the use of force. CCW activity around weapons reviews could usefully be separated from consideration of LAWS, and widened to consider the topic of reviews in relation to all weapons, means and methods of warfare. Indeed, proposals for the CCW to focus on weapons reviews have been made previously by civil society and international organisations, prior to the adoption of autonomous weapons as a topic for discussion at the CCW.

This paper discusses some of the key questions that might be considered by those proposing to address LAWS through national level weapons reviews, and suggests how international action to improve national reviews could nevertheless be advanced.

Weapons reviews at the CCW debate on LAWS

States and others participating in the CCW discussions on LAWS raised or suggested the relevance of article 36 reviews in a number of ways during meetings held in 2015.¹ Several states have reiterated: that all new weapons developed for use in armed conflict must comply with existing law; that states must therefore conduct legal reviews of new weapons; and that this obligation applies equally to LAWS, so states must conduct weapons reviews on any development of LAWS that they are undertaking. Not all states are party to Additional Protocol I, though some participants noted that reviews are arguably a customary obligation on all states.

Some states have suggested that ensuring and universalizing the implementation of article 36 reviews is a necessary step in response to LAWS, in particular in the current absence of an international agreement. Several have supported the suggestion that transparency and the exchange of review procedures, and following from this the development of common standards or best practices for weapons reviews with respect to LAWS, would represent a step forward in international consideration of the issue. Building technical capacities and expertise at a national level to conduct reviews on LAWS was also proposed in this context. Six states have given a short outline of their weapons review procedures in the context of LAWS discussions,² and SIPRI and the United Kingdom have reported meetings on the topic.³

Civil society organisations and a small number of states have questioned whether a focus on improving national weapons reviews represents the optimal approach on LAWS at this stage, for a variety

of reasons explored in more detail below. The International Committee of the Red Cross (ICRC) has welcomed the acknowledgement by many states of the importance of weapon reviews to preventing the development of illegal or unacceptable weapons. Nevertheless, the ICRC observed that the “fundamental questions” raised by LAWS with regards to the role of humans in the use of force – “questions which have profound implications for the future of warfare, and indeed for humanity” – cannot be left “solely” to national weapon reviews, and that states should seek common ground “on where to fix the limits on autonomy in the critical functions of weapon systems.”⁴

The ICRC has suggested that experiences from the legal review of existing weapon systems using autonomy could make a useful contribution to setting international limits on LAWS, by showing how states have ensured these weapons’ compliance with International Humanitarian Law (IHL), and has encouraged states to share information in this regard.⁵ States’ calls for greater transparency and sharing with respect to weapon reviews have, on the other hand, so far focused on procedures and processes and the national capacities needed for examining future systems. They have tended not to focus on the outcome of reviews of systems relevant to development of LAWS, with a view to reaching international agreement on what is and is not permissible.

Key issues for article 36 reviews as a response to LAWS

Article 36 obliges states, in the “study, development, acquisition or adoption” of new weapons, means or methods of warfare to review whether their use would “in some or all circumstances” be prohibited by any applicable rule of international law. States are not obliged to make their reviews available to others (as this is perceived as important in relation to maintaining military advantage), though they may choose to describe the mechanisms or processes they use. There are no mechanisms for international oversight or compliance with article 36. There are also no established international standards for undertaking weapon reviews, though the ICRC has produced guidelines and legal commentary.⁶

In practice, the implementation of weapon reviews by states can focus on legal risk – narrowly conceived and focused on explicit existing prohibitions – rather than on broader interpretations and humanitarian, human rights or ethical concerns.⁷ The ICRC has recommended that states revisit reviews if new evidence emerges following a new weapon’s deployment, and that where a weapon ‘fails’ review states should consider sharing this information towards ensuring respect for IHL. However, there are no obligations or guarantees that states will do so, and there is no evidence to suggest that such practice has been observed. There is also a lack of evidence that national weapon reviews have prevented the adoption of problematic weapon systems.⁸

Below, a number of the key concerns in using this national process as a basis for responding to LAWS are discussed. In summary:

- x International rules must be agreed on LAWS, given their global implications and the serious concerns expressed about them by states, international organisations and civil society: decisions must not reside solely with states considering the acquisition of LAWS.

- x Without such rules, national reviews are currently an insufficient response to LAWS. Narrow interpretations and inconsistent outcomes across states, of which there is a high risk in this context, could lead to the introduction of unacceptable technologies.
- x The challenge of LAWS relates to the unprecedented shift in human control over the use of force that they would facilitate, rather than to specific weapons systems. National reviews may be too narrowly conceived in current practice to address the broad concerns raised by LAWS, including ethical, political and legal issues beyond IHL. It would be inappropriate to delegate these decisions away from multilateral discussions on to weapon reviewers – and this type of concern about the limits to effectiveness of weapon reviews is part of the reason the CCW was developed in the first place.
- x Only a small minority of states are currently known to conduct weapon reviews. Continuing discussion of LAWS towards multilateral agreement would be a more direct and effective approach to addressing LAWS than increasing implementation of reviews more generally, which will require significant development of capacity around the world. The CCW has a role in making rules on weapons issues where national reviews may prove insufficient, and this is a reason why LAWS are on the CCW agenda.

LAWS are not simply a new weapon system that fits easily within the boundaries of how armed conflict is currently conducted, but a new and unprecedented development presenting novel challenges to the application of the law as it stands. LAWS would fundamentally change the character of the use of force and the relationship of humans to it. The implications of these changes would be global and to the nature of warfare itself. The impact of the use of LAWS on individuals and societies would reach far beyond user states, and could have serious implications for future relationships between states. In this context, leaving decisions on the development and deployment of LAWS only in the hands of those states that are considering possessing them would be deeply unacceptable. This is, however, what an approach to LAWS based solely on national weapon reviews would ultimately do.

Only states considering the adoption of LAWS would conduct weapon reviews on them. There would be no obligation on these states to disclose their reviews or the fact that these were taking place to other states or organisations, for whom there would be no formal process for giving input or objection. Though discussions to develop common understandings regarding applying weapons reviews to LAWS would allow wider input, the lack of an agreed international legal standard to accompany this would mean that decisions on LAWS were still left entirely to the individual states considering them, who would have no obligations under a best practices approach.

In their implementation of article 36, states currently apply a variety of processes, undertaken by bodies with different compositions and roles, and consider different legal frameworks. For example, some consider the application of International Human Rights Law or the possibility of future developments in law in their reviews, and others do not.⁹ This is significant to the consideration of LAWS, the legal concerns around which extend beyond IHL:¹⁰ many states may not take all these concerns into account in their reviews. Along with these factors, inconsistency in the interpretation and application of international law amongst states, as noted by the ICRC in the context of the LAWS discussion,¹¹ as well as narrow and conservative inter-

pretations that appear to have been a historical feature of national reviews, risks inconsistent and permissive outcomes amongst states conducting national reviews on LAWS. In the absence of clear international rules, this could contribute to the adoption of problematic technologies by some states.

Increasing consistency in practice amongst states with respect to weapon reviews is welcome, but again without an international agreement on LAWS, the risk of inconsistency and permissiveness towards weapons development with respect to LAWS, in the outcome of reviews amongst states with different legal cultures, would remain high. Multilateral agreement on rules with respect to LAWS, as well as being vital in principle, would support the consistent implementation and efficiency of national weapon reviews of new technologies and systems. It would do this by providing clarity to reviewers on what has already been explicitly declared illegal by a group of states – a major point of consideration for states in reviews, particularly those interpreting the obligation to review most narrowly. By contrast, the outcome of potential future national reviews of LAWS, where shared, would not in themselves set any legal standard on LAWS. National weapon reviews are understood not to have such implications.¹²

It is not known whether all states that are considering or have the potential to develop LAWS, or might wish to procure them, currently conduct weapon reviews. Less than thirty states are known to have national review processes, and little is known about the operation of many of these procedures.¹³ This is a further limitation to taking an approach based on national reviews to addressing the issue of LAWS. A process to encourage more states to implement national reviews may increase the number of potential developer or procurer states doing so. Given the opacity of national reviews, however, this approach to achieving common standards and practice with respect to LAWS would be both indirect and its success highly difficult to assess. The continued open, multilateral consideration of the fundamental concerns that LAWS raise, and agreement on how they should be addressed, constitutes a more direct and effective approach.

The CCW as a forum has a role to undertake such discussions, with the express purpose of continuing “the codification and progressive development” of international law, and of collectively prohibiting unacceptable weapons. The framework exists in recognition that national reviews will not always be sufficient to address specific concerns. Historically, the CCW was established after states agreed that given provisions in Additional Protocol I were wide, a specific forum for the discussion and prohibition of certain conventional weapons was desirable and necessary.¹⁴ LAWS are on the agenda at the CCW precisely for these reasons, and the CCW reverting to national reviews as a solution goes against this fundamental purpose for the CCW’s agreement.

Debate at the CCW has shown that there is considerable opposition to LAWS, and that their desirability and permissibility is contested by states, international organisations and civil society. Using national weapons reviews as a basis for addressing concerns around LAWS, however, leaves space for the continuation of activities relevant to their development until the point that a state decides to undertake a review. As an approach, this disregards fundamental concerns already expressed about LAWS and opposition to their development being allowed at all. These have not yet been resolved by states. Allowing such continuation also suggests an implicit assumption that

the development of LAWS by states is inevitable. This inevitability has been seriously challenged during international discussion and should not be assumed by participants approaching such discussions in good faith.

The scope and timing of national reviews are also relevant to their utility in addressing the concerns raised by LAWS. The issue of LAWS does not necessarily relate to a specific new weapon or group of weapons currently under development, but to a shift in human control over the use of force facilitated by a set of developing technologies.¹⁵ Article 36 reviews on the other hand have tended to be conceived or interpreted as dealing with the narrower concern of the characteristics of particular tools of war or specific weapons systems, and the ways in which these are to be used and deployed. States’ descriptions of their review processes also imply the consideration of specific acquisitions.

If this were the case, weapons reviews would not only be an inefficient way in which to address the issue of LAWS, compared to reaching a single multilateral agreement, but would not be an adequate tool for addressing the concerns posed by LAWS as a development in the whole. In particular if reviews are conceived of and implemented at such a stage as to act as a narrow IHL-based legal check on a policy decision already taken to research or procure a particular LAWS, they would be unlikely to be able to perform the function of analysing and producing decisions on the wider implications of adopting such systems, including ethical objections. In this context, by building precedents in the absence of broader rules or decisions, the approval of certain technologies could facilitate further authorisations that may not have been made had LAWS been considered comprehensively.

Lastly, it would arguably not be appropriate to delegate responsibility to weapon review teams for decisions effectively concerning the future of warfare. Such decisions should reside at the multilateral political level, from the perspective of global governance and democratic accountability. Aside from this more fundamental issue, known weapons review procedures involve small teams of a generally narrow range of experts and, as SIPRI has noted, challenges of cost, technical capacity and expertise would also be relevant to their ability to deal effectively with the novel challenges posed by LAWS.¹⁶ Known weapon review teams generally consist largely of experts in the area of the law: the lack of a multidisciplinary approach in many known national review procedures means that the necessary expertise to understand and assess highly complex technical systems may not be present.

International discussion to improve weapon reviews

There is often little space for public scrutiny in the development of new weapons, which generally take place in a context shrouded by military and commercial secrecy. Improving implementation, practice and transparency of process in legal reviews of weapons with input from a range of stakeholders – given that the development of weapons can have wide societal impacts – would be welcome developments in this regard. More prominence should be given to weapon reviews in national and international discussion on the relationship between society, technology and violence. Focus on the importance

of legal reviews and the need to raise standards and build common understandings is therefore useful and necessary.

In the context of the CCW, an approach based on national reviews will arguably be inadequate to respond to the challenge of LAWS, but attaching consideration of weapon reviews solely to the LAWS agenda will also be limiting to consideration of this important issue. States should consider building on the current interest and focus on weapons reviews in the context of LAWS, as well as previous calls to improve their implementation,¹⁷ to take forward discussion on the subject as a whole. In partnership with a range of relevant actors such as international organisations, academics and other civil society actors, states should consider what could improve the effectiveness of weapon reviews to address the legal, ethical and humanitarian issues raised by new technologies, building on previous recommendations such as by the ICRC that reviews should be multidisciplinary to take into account the various concerns and interests that weapons systems raise.¹⁸ For those who attach value to national weapon review processes and wish to promote their implementation, it would be an unfortunate missed opportunity to subsume this important theme into discussions on the specific emerging concerns around lethal autonomous weapons systems.

The International Human Rights Clinic at Harvard Law School in partnership with Article 36 has been investigating how lessons from other regulatory regimes could contribute to a conversation on how humanitarian concerns can be better addressed in weapon reviews.¹⁹ EU and UK regimes on areas such as police use of less-lethal weapons, nuclear power, pharmaceutical drugs and pesticides deal with known and unknown risks to human health and safety, and like weapons review processes must address issues of risk and possible humanitarian harms while also establishing workable rules and practices. While not every part of each regime is analogous to weapon reviews, aspects of each regime point to possible useful lessons to draw on.

Initial findings reinforce recommendations, including those made by the ICRC, that weapon reviews could benefit from: being multidisciplinary; carefully assessing and considering implications for human health; and considering making certain results or processes public. Other regulatory regimes also suggest the benefits of: including multiple phases of analysis in reviews; putting procedures in place to conduct ongoing review automatically and to trigger further review where new evidence of harm comes to light; involving independent bodies in enforcing compliance; and establishing clear lines of political accountability for the outcome of review processes.

Conclusion

There is currently no clear rule or consensus in international law on the type or level of human control or judgement that is needed to ensure that a weapon system is legal or is being operated legally. Without this clarity, there is no shared basis on which national weapon reviews can approach this critical question, which is fundamental to the challenge presented by LAWS. Without agreement on the boundaries of what is acceptable in relation to human control and autonomy in the critical functions of weapons systems, national reviews are insufficient to manage the concerns raised by LAWS. International agreement is needed to ensure consistent national implementation, and the wide concerns about LAWS raised during debate at CCW should not be delegated back to individual states to decide

on without being resolved. These unprecedented concerns suggest that article 36 is not “a process which has been developed exactly for situations like the one we are now facing” in relation to LAWS, as one state has suggested.²⁰

Information on current systems, and experiences of legal reviews of technologies with aspects of autonomy, can contribute to multilateral discussion and agreement on LAWS, as the ICRC has suggested. National reviews in themselves nevertheless do not currently constitute an effective response to what remains a collective global problem. Rather than concentrating on improving national reviews as an interim solution or first step with respect to LAWS – which itself will take much time and effort to achieve, and divert resources – states should concentrate on reaching a collective agreement, recognising the urgency of addressing this issue.

Given that the vast majority of states speaking on this issue have stated that they do not intend to develop LAWS, and that weapons systems must remain under human control, the legal prohibition of LAWS – systems operating without meaningful human control over individual attacks – would be a logical next step. While meaningful human control has not yet been defined, the development of human control as a central focus of discussions has continued, with the most recent analysis produced as input for the CCW proposing four key elements: predictable, reliable and transparent technology; accurate information for the user on the outcome sought, the technology, and the context of use; timely human judgement and action, and a potential for timely intervention; and accountability to a certain standard.²¹ Further international discussion and analysis of these elements of human control should lay the groundwork for an international agreement to prohibit systems operating without the necessary human control. At the same time, broadening discussion of weapon reviews out from their narrow consideration in relation to LAWS would also be a positive step towards globally improving the application of this vital mechanism for managing the technologies of violence.

END NOTES

- 1 For this paper, Article 36 examined statements made to the April 2015 expert meeting on LAWS and the November 2015 Meeting of High Contracting Parties to the CCW
- 2 Australia, Germany, the Netherlands, Russia, the United States and the United Kingdom
- 3 See Vincent Boulanin, 'Implementing Article 36 Weapon Reviews in the Light of Increasing Autonomy in Weapon Systems', SIPRI Insights on Peace and Security, No. 2015/1, November 2015, available at: <http://books.sipri.org/files/insight/SIPRIInsight1501.pdf> and the statement of the UK to the 2015 Meeting of High Contracting Parties to the CCW, available at: [http://www.unog.ch/80256EDD006B8954/\(httpAssets\)/880AB56F1A934474C1257F170056A8F2/\\$file/2015_CCWMSP_LAWS_UnitedKingdom.pdf](http://www.unog.ch/80256EDD006B8954/(httpAssets)/880AB56F1A934474C1257F170056A8F2/$file/2015_CCWMSP_LAWS_UnitedKingdom.pdf)
- 4 Statement of the ICRC to the 2015 Meeting of High Contracting Parties to the CCW, available at: [http://www.unog.ch/80256EDD006B8954/\(httpAssets\)/3E46D595853F5361C1257F0F004C22C3/\\$file/ICRC+CCW+AWS+statement+FINAL.pdf](http://www.unog.ch/80256EDD006B8954/(httpAssets)/3E46D595853F5361C1257F0F004C22C3/$file/ICRC+CCW+AWS+statement+FINAL.pdf)
- 5 Ibid and ICRC statement to the 2015 Expert Meeting on LAWS, available at: [http://www.unog.ch/80256EDD006B8954/\(httpAssets\)/4CE346B40DDBF000C1257E2600616A59/\\$file/ICRC+general+statement+CCW+LAWS+expert+meeting+13+04+2015+FINAL.pdf](http://www.unog.ch/80256EDD006B8954/(httpAssets)/4CE346B40DDBF000C1257E2600616A59/$file/ICRC+general+statement+CCW+LAWS+expert+meeting+13+04+2015+FINAL.pdf)
- 6 See ICRC, 'A Guide to the Legal Review of New Weapons, Means and Methods of Warfare', Geneva, January 2006, available at: https://www.icrc.org/eng/assets/files/other/icrc_002_0902.pdf and ICRC, 'Commentary of 1987' available at: <https://www.icrc.org/applic/ihl/ihl.nsf/Comment.xsp?action=openDocument&documentId=F095453E41336B76C12563CD00432AA1>
- 7 See Brian Rappert, Richard Moyes, Anna Crowe, and Thomas Nash, 'The roles of civil society in the development of standards around new weapons and other technologies of warfare', International Review of the Red Cross, Volume 94 Number 886 Summer 2012, available at: <https://www.icrc.org/eng/assets/files/review/2012/irrc-886-rappert-moyes-crowe-nash.pdf>
- 8 Ibid.
- 9 Rappert et al above note 7 and Boulanin above note 3
- 10 See for example Human Rights Watch and the International Human Rights Clinic of Harvard Law School (2014), 'Shaking the Foundations: The Human Rights Implications of Killer Robots', available at: https://www.hrw.org/sites/default/files/reports/arms0514_ForUpload_0.pdf
- 11 Statement of the ICRC to the 2015 Meeting of High Contracting Parties to the CCW, available at: [http://www.unog.ch/80256EDD006B8954/\(httpAssets\)/3E46D595853F5361C1257F0F004C22C3/\\$file/ICRC+CCW+AWS+statement+FINAL.pdf](http://www.unog.ch/80256EDD006B8954/(httpAssets)/3E46D595853F5361C1257F0F004C22C3/$file/ICRC+CCW+AWS+statement+FINAL.pdf)
- 12 ICRC, 'Commentary of 1987' available at: <https://www.icrc.org/applic/ihl/ihl.nsf/Comment.xsp?action=openDocument&documentId=F095453E41336B76C12563CD00432AA1>
- 13 See Rappert et al above note 7 and Boulanin above note 3
- 14 See ICRC, Commentary of 1987 above note 11
- 15 For a discussion of the challenges LAWS pose to the maintenance of control over individual attacks as conceived in IHL, and some key elements that may be considered in approaching meaningful human control, see Article 36 (April 2016) 'Key elements of meaningful human control' and Roff, Heather M. and Moyes, Richard. 'Meaningful Human Control, Artificial Intelligence and Autonomous Weapons.' Briefing paper prepared for the Informal Meeting of Experts on Lethal Autonomous Weapons Systems, UN Convention on Certain Conventional Weapons, April 2016, both available at www.article36.org
- 16 See Boulanin above note 3
- 17 For example the declaration of the CCW's Fourth Review Conference, which urges states to conduct reviews, and the conference declaration of the International Conference of the Red Cross and Red Crescent in 2003, which called for all means and methods of warfare to be subject to rigorous and multidisciplinary review and invited states to cooperate with the ICRC to facilitate voluntary exchange on experiences of their review procedures (see Rappert et al above note 7)
- 18 See ICRC (2006) above note 6
- 19 Publication forthcoming in late 2016
- 20 Statement of the UK to the 2015 CCW Experts Meeting on LAWS, available at: [http://www.unog.ch/80256EDD006B8954/\(httpAssets\)/1CBF996AF7AD10E2C1257E260060318A/\\$file/2015_LAWS_MX_United+Kingdom.pdf](http://www.unog.ch/80256EDD006B8954/(httpAssets)/1CBF996AF7AD10E2C1257E260060318A/$file/2015_LAWS_MX_United+Kingdom.pdf)
- 21 As proposed in Roff and Moyes (2016) and Article 36 (April 2016), above note 15

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