



Foreign &
Commonwealth
Office

**UNITED KINGDOM OF GREAT BRITAIN
AND NORTHERN IRELAND**

**Statement for discussion on characterisation of the systems under consideration at
the Meeting of the Group of Government Experts on Lethal Autonomous Weapons
Systems, Tuesday 10 April 2018**

Mr Chairman,

1. Thank you to all those who have already contributed to this valuable discussion on the characterisation of the systems under consideration. With the aim of moving towards a clear, universally agreed understanding, the UK would like to offer some thoughts, firstly on autonomy, then on the critical functions in the application of lethal force and how these would theoretically apply to LAWS should they come to exist.
2. It is not surprising that there is no collective agreement across this debate on precisely what is meant by autonomy. The term is relative and its meaning is dependent on the context in which the term is used. The term 'autonomy' may have different meanings in different professional sectors. Therefore, I recall, for clarity that for the purposes of these discussions, the UK's definition is: "An autonomous system is capable of understanding higher level intent and direction. From this understanding and its perception of its environment, such a system is able to take appropriate action to bring about a desired state. It is capable of deciding a course of action, from a number of alternatives, without depending on human oversight and control, although these may still be present."
3. Mr Chairman, taking now your terminology which you helpfully set out in your introduction to this discussion on LAWS, I start with some comments which would fit under the 'separative' approach, The UK strongly believes that LAWS do not currently exist, nor are imminent now. Accordingly, the UK rejects any suggestion that existing

weapon systems are LAWS. It not arbitrary, but it is a fact that no weapons system possessed by the UK is fully autonomous. Existing highly automated weapons meet the stringent standards of Article 36 legal weapons reviews.

4. Furthermore, as technology progresses, it is the UK's view that evolving human/machine interfaces will allow us to carry out military functions with greater precision and efficiency. For example, in accomplishing mechanically demanding tasks such as landing on a moving aircraft carrier, or by reacting to events that happen too quickly for humans to process, such as shooting down incoming missiles. These systems do not meet our definition of fully autonomous systems, as they are constrained in their action by bounded parameters and input by human controllers – even if the machine controls certain phases of operation. For example, Phalanx can DETECT a target based on the inputs specified by the controller; it cannot both DETECT and SELECT a target based on its own reasoning or logic.
5. Turning now to the 'common' approach, we recognise that others have different definitions about what autonomous means when it comes to lethal systems. Assessments of how 'autonomous' a lethal system is can be difficult to codify or define. Additionally, it should be recognised that autonomy is not a binary technology; many existing systems contain functions that do not require human interaction - such as the operation of aerodynamic control surfaces in aircraft. Considering the critical functions in the application of lethal force and how they could apply to theoretical LAWS is helpful in making progress without stalling over different interpretations of autonomy. Firstly, the UK believes that there are several critical functions - the principal of these being the selection and engagement of a target. Secondly, the UK believes the key consideration in whether a weapons system could be used in compliance with International Humanitarian Law (IHL) is the level, method and nature of human control over these critical functions. It is the UK's view that the principles of IHL, and the requirement for assessing the risks implicit in a strike, can only be assessed and applied by a human. We hope that focus on effective human control offers an opportunity to consider what could be acceptable and unacceptable characteristics.
6. Mr Chairman, moving on to the 'accountability orientated' approach, the UK believes that the level, nature and decisiveness of human control over critical functions is the key consideration in the characterisation of LAWS, rather than the technology. If we focus on human control, we can pay particular attention to the key element influencing legal, ethical and technical considerations of such systems. Technology will change, our understanding and development of it will improve and its uses across our lives will continue to diversify. Focus on the level of human control in weapons systems, as required under the four fundamental principles of IHL - distinction, proportionality, necessity and humanity - would prevent rapid changes in technology driving a constant requirement to review our approach. Hence, the UK believes that characterisation of LAWS should concentrate on human control, remaining, as far as possible, technology agnostic. The mechanisms and means of regulation should remain governed by IHL and be delivered through Article 36 Legal Weapons Reviews, for which the element of

human control is essential in the legal assessment of autonomous or highly automated weapon system. Weapons Reviews should be universalised and rigorously followed for all lethal technologies.

7. The conduct of a legal weapons review will enable a State to consider how predictably a weapons system responds in complex and changing environments. In order to be able to use a system from a military perspective, it is vital to be able to predict its behaviour, or understand the extent to which it is unpredictable. For example, weapon systems that can change the parameters under which they operate could be dangerous. Military personnel would not want to fight alongside machines that can change their rules of engagement or target set without human input. Ensuring clarity the right level of human control in selecting and engaging a target ensures predictability. It is worth recalling that predictability, precision and reliability are already parts of the lawful Article 36 weapon reviews that the UK conducts for all weapons entering service; a practice that we believe is wholly appropriate to deal with evolving technologies in warfare.
8. Mr Chairman, in closing, we hope this is a useful summary of the UK's views. We look forward to discussion in more detail within the session scheduled for Wednesday, which gives further consideration to the human element in the use of lethal force.

Thank you.