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**Group of Governmental Experts of the High Contracting Parties to the Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects**

4 April 2018

Russian and English only

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Geneva, 9–13 April 2018 (first week)

Item 6 of the provisional agenda

Other matters

**Russia's Approaches to the Elaboration of a Working Definition and Basic Functions of Lethal Autonomous Weapons Systems in the Context of the Purposes and Objectives of the Convention**

**Submitted by the Russian Federation**

1. The Russian Federation remains convinced that the CCW is an appropriate format to consider the matters related to lethal autonomous weapons systems (LAWS). This Convention has established itself as a forum where decisions are discussed and adopted on the basis of a reasonable balance between humanitarian concerns and legitimate defense interests of States. It is this particular feature of the forum that provides a practical opportunity to analyze such a contradictory and controversial subject as LAWS with realism and due prudence.

2. The Russian Federation believes that at this point the major problem of the work on LAWS in the framework of the relevant CCW GGE lies with speculative discussions divorced from reality owing to the lack of both actually operating LAWS and general understanding with regard to their working definition and basic functions at the moment. There are States that include semi-autonomous and automated systems under this category and believe that such elements already exist and are widely used. Others assume that there are no such systems and that real LAWS with high-level AI are a future possibility. Therefore, it becomes evident that the definition of LAWS varies considerably among States. This in turn complicates our discussions within the GGE.

As a contribution towards resolving this issue, the Russian Federation would like to share some of its ideas in this regard.

According to Russian experts, the working definition should meet the following requirements:

- (a) it should contain the description of the types of weapons that fall under the category of LAWS, conditions for their production and testing as well as of their use;
- (b) the wording should not be limited to the existing understanding of LAWS, but also take into consideration the possibility of their future development;
- (c) it should be universal in terms of the understanding by the expert community, including scientists, engineers, technicians, military personnel, lawyers and ethicists.

While elaborating the definition of LAWS, one should avoid making hasty decisions "cementing" technological advancement.

The fact that the views on and the attitude towards technology in the society can change over time as more operating experience is gained should also be taken into account.

For instance, the Russian Ministry of Defence uses the following working definitions:

(a) "Autonomous weapons system – an unmanned piece of technical equipment that is not a munition and is designed to perform military and support tasks under remote control by an operator, autonomously or using the combination of these methods";

(b) "Semi-autonomous weapon system – type of robotic military equipment requiring involvement of the operator";

(c) "Autonomous unmanned undersea vehicle – autonomous unmanned undersea vehicle performing the tasks in accordance with a set program without direct involvement of the operator";

(d) "Autonomous spacecraft – automatic or manned spacecraft able to function with set efficiency within the period of its active existence without management of the ground aids".

The above definitions "are not applicable to unguided munitions; munitions controlled by a human operator (for example, laser guided munitions or wire-guided munitions); mines, unexploded ordinances."

## **I. General comments**

3. The Russian Party proceeds from the premise that it would be difficult to advance the discussion on LAWS without preliminary clarification of the issue concerning working definition and basic functions of such weapon systems.

It is important to elaborate them for a clearer understanding of the subject of the discussions within the framework of the GGE, including in the interests of differentiation between existing operational systems with a high autonomy/automation degree and future LAWS. In this case, The Russian Federation is of the view that at this stage the discussion can concern only the elaboration of general understanding of what the future LAWS could be with the "advanced" level of "artificial intelligence".

4. Efforts to elaborate a working definition of LAWS should be coordinated in full compliance with the goals and objectives of the Convention and do not extend beyond its scope. That is, the discussion should be conducted on the possible restriction of the use of LAWS in the cases described in Article 1 of the CCW with the amendment of December 21, 2001.

5. Nothing in the efforts to elaborate basic characteristics and working definition of the LAWS should upset the balance between humanitarian concerns and the interests of defense security of the participating States the maintenance of which is the essential priority of the Convention.

6. Any attempts to find a working definition of the LAWS should not lead to a division of the weapons under discussion into "bad" and "good" ones, in other words, should not allow the division of such weapons into groups and categories based on the political preferences of a particular group of States.

7. The elements laid down in the working definition should not undermine the ongoing research in the field of peaceful robotics and artificial intelligence.

8. Considered all, the Russian Federation believes that work on developing a working definition and basic functions of LAWS should be carried out in an utmost open manner involving the maximum number of experts working on various aspects of this integrated and multidimensional topic. At the same time, the principle of equitable geographical representation should be adhered.

## II. Substantive matters

9. The Russian Federation proceeds from the premise that the existing military systems with a high degree of automation/autonomy should not be classified as LAWS. The practice of actual use of such existing systems shows that it is the high automation/autonomy degree enables them to operate in a dynamic combat situation and in various environments with a high level of efficiency often not available to humans.

Meanwhile, the proper selectiveness is secured, and, as a result, their compliance with the norms of international humanitarian law. In other words, in such systems the machine plays the role of an indispensable aide, coping with the entrusted functions more effectively than a human controller. Therefore, such systems should be maintained.

An improved autonomy use could contribute to more accurate guidance of weapons directed against military assets which would contribute to the reduced risk of unintentional strikes against civilians and civil facilities. The use of unguided or guided smart bombs and missiles for hitting the same aim is an example thereof.

In ensuring these functions the states should rely on **their own standards** in this sphere. Attempts to develop certain universal parameters of the so-called "critical functions" for both existing highly automated war systems and future LAWS – aim identification and hit command, maintaining "significant" human control – can hardly give practical results. For example, it is doubtful whether criteria to determine a due level of "significance" of human control over the machine could be developed.

10. In light of the mentioned in para.9, the Russian Federation opposes discussing UAV-related issues within the LAWS context, as UAVs represent a particular group of the available war systems with a high autonomy degree.

11. The Russian Federation questions whether it is appropriate to define LAWS through the aim identification and hit command functions **only**, since in this case we would have to include the already available highly automated war systems in the LAWS concept. Meanwhile, the above mentioned functions would be better performed by machines under certain conditions. However, in defining LAWS through the aim identification and hit command functions, we are thus sending a message that we want to retrieve these functions from machines and retain them exclusively with humans. It is hardly a promising approach. In our view, the core working LAWS definition should not be confined to such functions. In doing so, we "forget" that the automated aim identification and hit command functions are set to the machine by the human through certain algorithms. We do not doubt the necessity of maintaining human control over the machine.

The legal responsibility issue should be addressed by both States and individuals that use weapon systems with autonomous functions. The responsibility for the decision to use weapon systems, including LAWS, should be rest upon the relevant officer. For example, in setting the combat mission commanders of different ranks should assess likely threats for civil population and facilities, and should the use of such weapon be imperative, they must take all possible steps to prevent losses, including among civilians.

Thus, advanced as it may be, an autonomous system cannot perform its functions without a human behind it. Hence, the responsibility for the use of LAWS should be with the human who operates or programs the robot system and orders to use LAWS.

12. In general, the Russian Federation presumes that the work on definition and basic functions should mainly be guided by the ultimate goal of LAWS discussion – i.e. explore possibilities to use this weapon type in a most adequate manner in future and maintain a due level of human control over it. At the same time, specific forms and methods of such control should remain at the discretion of States.