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This week, delegates to the United Nations Convention on Certain Conventional Weapons (CCW) will discuss the CCW's agenda for spring 2015. One topic of consideration will be whether to hold further discussions on lethal autonomous weapon systems (LAWS), emerging technologies that raise significant legal, policy, moral and ethical issues.

In May of 2014, the CCW held the first multilateral discussions on LAWS. These discussions were productive in refining states' understanding of LAWS, but the role of autonomy in the use of force is a complicated issue that merits further consideration.

State parties to the CCW should renew the mandate for discussion and hold substantive talks on autonomous weapons in the spring of 2015, including diving deeper on technical issues and clarifying nascent terminology.

What are Lethal Autonomous Weapon Systems?

LAWS are weapon systems that, once activated, can select and engage targets without further human intervention, also known as without a human "in the loop." This is different from drones today, where a human is responsible for firing weapons against any target.

LAWS generally do not exist today, but increasing automation in systems across both militaries and the commercial sector suggest it is important to consider this topic now:

- Rapid advances in computer technology have raised the prospect for the future development of autonomous weapon systems.
- It is important to distinguish between trends toward greater autonomy in systems in general, such as self-driving cars or military robots or missiles with advanced navigation features, and autonomous weapons that would select and engage targets on their own.
- Some simple forms of autonomous weapons already exist, although they are generally limited to systems supervised by humans that protect vehicles and military bases from attacks. These include active protection systems for ground vehicles to shoot incoming rockets and automatic modes in air and missile defenses to prevent ships or military bases from being overwhelmed by multiple, simultaneous threats. These human-supervised defensive systems are employed by many nations today.

Why Discuss Autonomous Weapons at CCW?

Discussions at the CCW will help states understand how these weapons might develop and their implications for how states and non-state actors may consider using force in the future.

- Autonomous weapons raise questions about the appropriate level of human control over the use of force. Activists have suggested a principle of “meaningful human control,” but discussion is needed to better understand what meaningful human control actually entails.
- While intelligent, humanoid robots are likely to firmly remain in the realm of science fiction, simple autonomous weapons are possible today. Understanding the technological range of the possible is an important task.
- Autonomous weapons raise important questions about strategic stability. As multiple countries pursue these technologies, they could affect crisis dynamics, particularly in cases where states fear adversaries might attempt to deny them situational awareness. These effects could vary for different types of LAWS, making further discussions to understand the issues important.

Recommendation

State parties to the CCW should renew the mandate for discussion on autonomous weapons for another round of substantive discussions in

2015. Discussions should build on those in 2014 and dive deeper into key areas, particularly technical issues.

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About the Project on Ethical Autonomy

The project on Ethical Autonomy will examine the legal, moral, ethical, policy and strategic stability dimensions of increased autonomy in future weapon systems.

The goal of CNAS’s Ethical Autonomy project is to help states, activists, academics and militaries grapple with the challenging issues of autonomy in future weapons. This dialogue is necessary to ensure an appropriate balance between ethical and strategic stability considerations, technological opportunities and future warfighting needs.

The Ethical Autonomy project is a joint endeavor of CNAS’s Technology and National Security Program and 20YY Warfare Initiative, and is made possible by the generous support of the John D. and Catherine T. MacArthur Foundation.

For more information, visit:

www.cnas.org/ethicalautonomy