## ARTIFICIAL INTELLIGENCE IN MILITARY AFFAIRS

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Nowadays, the use of the latest technologies contributes to the successful resistance to armed aggression and war. It is impossible to do without new types of weapons, spying, control and strike systems that would not use such technology as artificial intelligence, its definition can be understood as a complex of processing and transmission of information, the use of algorithms in its action.

Today, the Armed Forces and various military formations are trying to fully automate such processes as detection, identification of an object and its complete destruction, in particular, this applies to cruise missiles, ships, aircraft and various military equipment and weapons.

But this requires the involvement of foreign military experts, IT specialists, analysts, engineers who could fully assist in the development of these systems.



The United States is already fully implementing this technology. For example, engineers from the American company Boeing have developed a drone with artificial intelligence Loyal Wingman.

On the one hand, this aircraft looks like a fighter and has a system of electronic warfare and reconnaissance. It is planned to have such

weapons as missiles and bombs.

In my opinion, in order to win the war started by the Russian Federation, we must start using and implementing such technology as artificial intelligence.

To my surprise, this innovation is already being implemented and used in Ukraine.



Weapon that uses the artificial intelligence system is our Ukrainian kamikaze drone "Hrom". Its warhead weighs 3.5 kg and can neutralize targets at a distance of 30-40 km. "Hrom" is a new type of weapon that combines the idea of an unmanned aerial vehicle and

high-precision weapons. They can independently find the target and destroy it.

In my opinion, these devices are a better option than high-precision missiles, which have a high cost. Although, missiles can cause more damage, and their range is much greater than that of drones.



Also, among the new developments, one can single out the strike UAV-helicopter "RZ-500". To perform combat missions, it can use high-precision missiles with a flight range of 8 km. The principle of operation in this device is through fully automated

processes, in an emergency the operator can control this UAV himself.

All Ukrainian weapons that I have described here are in use, but they are not yet mass-produced.

A fairly high speed of data processing makes it possible to control troops and weapons in a very short time. This technology has many advantages, but it also has disadvantages. Among the disadvantages is the vulnerability to attacks that affect the hardware and software, so there is a possibility that a certain change in the data may cause an erroneous result.

The war that is going on now has shown us and the whole world that there is a need to use the latest technologies, to wage war with the help of high-precision

weapons and systems with artificial intelligence.

I think if Ukraine starts using our developments and those of our partners, we will be able to gain a significant advantage over the enemy, and we will be able to save as many lives as possible among the military and civilians.

## **References:**

Shtuchnyy intelekt dlya armiyi [Artificial intelligence for the army] (2022, March 10). Retrieved from

https://lb.ua/economics/2021/10/15/496227\_shtuchniy\_intelekt\_armii\_chi\_gotova.ht ml

Shtuchnyy intelekt na poli boyu rosiys'ko-ukrayins'koyi viyny [Artificial intelligence on the battlefield of the Russian-Ukrainian war] (2022, March 31). Retrieved from <a href="https://www.ukrinform.ua/rubric-ato/3444808-stucnij-intelekt-na-poli-bou-rosijskoukrainskoi-vijni.html">https://www.ukrinform.ua/rubric-ato/3444808-stucnij-intelekt-na-poli-bou-rosijskoukrainskoi-vijni.html</a>

Udarnyy BPLA-vertolit RZ-500 [RZ-500 shock UAV-helicopter] (2021, July 8). Retrieved from

https://defenceua.com/weapon\_and\_tech/udarnij\_bpla\_vertolit\_rz\_500\_vid\_ramzaj\_d etalno\_pro\_novogo\_vbivtsju\_tankiv-4151.html