



Research Report

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Issue of: Discussing the rising use of UAVs and their impact on warfare

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Forum: General Assembly 1
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Introduction

"drones have re-spatialized the concept of war" ~Hugh Gusterson (2016)

Normally when people think about UAVs, they don't often think of hot-air balloons, however, the first-ever UAVs (used in warfare) were in fact hot-air balloons. In 1849 field Marshall von Radetsky carried out an attack on Venice using balloon bombs, none the less they turned out incredibly ineffective. In 1935, the De Havilland DH.82B Queen Bee was developed in the United Kingdom. Many recognize the Queen Bee, which was controlled using radio signals, as the first "modern" drone.

The invention of UAVs or drones has introduced a whole new aspect to warfare, they have enabled targeted assassinations on people without the constraint of putting any lives at risk and enhanced the possibilities for warzone exploration. The United States also uses them as a continuously, round-the-clock "eye in the sky".





However, with all advantages come disadvantages, since the accessibility and availability to smaller commercial (hobbyist) UAVs, such as the DJI phantom, gives terrorist groups new methods to plan and conduct attacks. Although the common perception of the Islamic State is that they fight with an incoherent approach, they are clearly the most sophisticated and proficient in contrast to other terrorist organizations. Whilst we commonly see them using drones as a part of their artillery, it has also come clear that they are being utilized as propaganda machines, by photographing suicide-bomber attacks et cetera so that these could then later go on to be published on ISIS media channels.

Besides having UAVs changed the way of executing attacks, they have also given a whole different dimension to the “playing grounds” of warfare. Whereas initially, inter alia, schools, marketplaces, sports facilities were relatively uncommon battlegrounds, UAVs nowadays have enabled more specific attacks creating a broader battleground. And as the legalities of this are unclear in international law, it gives parties free game.

*“With artificial intelligence, we are summoning the demon”
~Elon Musk*

Next, ethics come into play, as in the future many of the UAVs will be based on artificial intelligence (AI). We should ask ourselves the question if AI is capable enough to make responsible decisions and with whom the accountability lies when AI makes a sizable error. For the time being, AI weapons are only used in defence mechanisms and always under human supervision. Though it is of extreme importance that we consider the development of AI when talking about UAVs and their impact on warfare.

Lastly, we aim to minimize the misuse of UAVs in any way, shape, or form and to create clear regulations in order to reduce and prevent the dreadful consequences this new form of technology and warfare may involve.

Definition of Key Terms

Unmanned Aerial Vehicle (UAV)

An unmanned aerial vehicle an aircraft piloted by remote control or onboard computers, also known as a drone.

**Drone Strike**

A drone strike is an airstrike delivered by one or more unmanned aerial vehicles.

Artificial Intelligence (AI)

The development of computer systems able to perform tasks normally requiring human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages.

ISR

Intelligence, Surveillance, and Reconnaissance is a collective of United States defence capabilities used for decision-making by military commanders and strategists.

Human Rights Watch (HRW)

Human Rights Watch defends the rights of people worldwide. They scrupulously investigate abuses, expose the facts widely, and pressure those with power to respect rights and secure justice.

Weaponization

Weaponization is the process during which something gets equipped with arms or is turned into a weapon. The weaponization of AI refers to the production of a machine with the purpose of creating an independent dangerous weapon that does not need manual controlling.

Espionage

The practice of spying in order to obtain information about the plans of an opposing government, company, or organisation. Espionage is considered a crime and has been criminalised by legislation.

DARPA

The Defense Advanced Research Projects Agency (DARPA) is a research and development agency of the United States Department of Defense responsible for the development of emerging technologies for use by the military.

General Overview



Brief History of UAVs

The first-ever UAV, the hot-air balloon, was invented in 1783 and was presented in Annonay, France. More than six decades later they were first weaponized, as expressed in the first paragraph of the introduction. The Queen Bee is deemed the first 'modern' motorised drone; however, it was never weaponized. The first-time drones were used during a war was in 1973 during the Yom Kippur War: unarmed drones, developed by DARPA, were used to trick the Egyptian army into shooting its entire arsenal of anti-aircraft missiles at the drones. There were no Israeli casualties under the Israeli aviators and the Egyptian defence was soon subjugated. The first-time drones were used in combat was during the first Gulf War in 1991. There was always a minimum of one UAV in the air during the entire war. When the utility of UAVs, which were developed by DARPA, was presented by the US military throughout the conflict, militaries globally started investing in the expansion and advancement of their combat UAV artillery, with the most important countries involved in the combat UAV development being: China, Iran, Israel, Pakistan, Turkey, and the United States. The first targeted killing using a drone was on the 4th of February 2004 in Paktia province, Afghanistan, as a failed attempt to kill Osama bin Laden.

UAVs and AI

Currently, most drones are operated by so-called "drone pilots". Yet, with new technology on its way, we must not overlook the inevitability of AI being implemented into UAVs, especially military drones, for decision making. Today AI is already being used in UAVs by the U.S military, however, solely being used for ISR and occasionally being applied to allow drones to fly independently. The future risk of AI implemented into UAVs is incorrect decision making, within the worst case causing unsolicited casualties, which begs the questions about ethics and responsibility.

Civilian Casualties

"We don't know how many hundreds of innocent civilians have been killed in these attacks ... This would have been unthinkable in previous times." ~President Jimmy Carter

It is unclear how many civilians have been killed by mistake in drone attacks, however, most people agree that there have been too many unjustifiable deaths since 2004. Understandable seeing as reportedly 90% of all deaths caused by UAV strikes was not intended by any means. In 2009, Israeli UAV's launched missiles at 48 civilians of which two children in an empty field and a group of young women in an empty street. Human Right Watch concluded that Israeli troops had not taken enough precautions to verify the people properly or failed to differentiate between combatants and non-combatants. Also, in 2009, it was reported that during the U.S airstrikes for every militant killed ten innocent civilian lives were taken. In 2013, a U.S airstrike murdered participants of a wedding at a wedding, HRW published a report stating that they: "found no evidence that the individuals taking part in the wedding procession posed an imminent threat to life. In the absence of an armed conflict, killing them would be a violation of international human rights law."

Non-State Actors Using UAVs

Many non-state actors have also started implementing drones into their operations, and even though most of the time they are being used as surveillance resources, some other groups like Islamic State have advanced in their utilization of drones and have weaponized these drones although still being commercially available UAV's. Other parties, for example, Libyan rebels, Hamas, Hezbollah, Houthi rebels, and the Libyan National Army (which is an opposition group to the United Nations-backed government in Libya), are also known to use military drones in their operations. As time goes on terrorist and rebel groups are developing bigger, better, and stronger UAV's, it is a matter of time before these UAV's become a serious threat to international safety.

Psychological Effects

When we speak about "psychological effects", we are not only focusing on the psychological damage the victims of these strikes have obtained. We also allude to the psychological damage the drone operators or controllers attain. In the worst-case, some could experience posttraumatic stress disorder, also known as PTSD. Distinct from fighter pilots the drone operators see the effects of their drones in clear detail, think of lifeless bodies including the bodies of young children. They sometimes also feel that by not putting their own life on the line, what they are doing is less honourable. On the other hand, we have to consider the psychological impact the strikes have on the direct victims if they have not passed away. PTSD is not uncommon among the victims, especially children. The constant noise of buzzing drones, which can eliminate their entire family at any given moment, causes trauma and





extreme discomfort within their own homes and completely removes the feeling of safety that children need in their homes.

Privacy

In the past, police agencies have used drones in their searches for wanted criminals. Drones are a serious threat to personal privacy, as it is not difficult for a drone to clandestinely enter unknowing people's personal space and take personal data, to be used against them. Ditto for companies and militaries, as it makes espionage much simpler, with all its consequences.

Trade and regulations

In the U.S, Europe and Australia regulations have been made, however, in most Asian, African, and Middle Eastern countries no regulations have been set, which leads to the undesirable proliferation of UAV's, enabling people with bad intentions to use UAV's how and whenever they please.

Major Parties Involved

United States

The United States is the largest developer and producer of combat UAVs. The U.S military is also the most frequent user of military UAVs. The U.S does in fact have rules and regulations set for the use and retail of these machines.

Israel

Israel exports the largest number of UAVs and is also a substantial user of this weaponry, whilst not publicly recognizing UAV's as actual weaponry.

Iran

Iran is the main supplier of UAVs to terrorist groups like aforementioned the Hamas, Hezbollah, and the Houthis. Iran is helped by North Korea in the produce of combat UAVs.

United Kingdom

The United Kingdom acquired multiple drones from the U.S in 2008, which were used in various attacks mainly in Afghanistan. The United Kingdom is not known for producing its own combat UAVs.

China

China is the main producer of amateur (hobbyist) drones like the DJI Phantom, which is used a lot by terrorists. China is also the most important supplier to Middle Eastern countries in terms of combat UAV's. They also use drones as surveillance in their ongoing battle for various Islands in the South Chinees Sea.

European Union (EU)

Many members of the EU such as Belgium, France, Italy, and Germany have purchased combat UAVs from the U.S. They mainly believe in the benefits of the



UAV's and see them as more sustainable and environmentally friendly ways of warfare.

North Atlantic Treaty Organization (NATO)

NATO is one of the largest military organizations in the world, therefore they will have a huge influence on the way UAV's will be used in the future. They use a non-armed UAV called the Global Hawk as a surveillance drone for military purposes.

United Nations Office for Disarmament Affairs (UNODA)

UNODA has as purpose to set regulations, rules, and standards for conventional weapons and was set up in 1998 by Secretary-General Kofi Annan as part of his project to reform the United Nations.

Timeline of Key Events

July 15th, 1849, Attack on Venice using balloon bombs, the first use of UAVs in combat

1935, The First modern drone is developed in the United Kingdom

1936, The United States launch their new drone development program

1973, Israel develops UAVs meant for surveillance and scouting

June 8th, 1982, first battle (battle of Jezzine) where drones made a significant difference to the outcome

1985, The United States increases the production of military drones

January 2012- February 2013, U.S drone strikes in Afghanistan

January 7th, 2013, DJI released the Phantom series

October 16th, 2016-July 20th, 2017, During the battle of Mosul ISIS used commercial drones to drop small explosives

Previous attempts to resolve the issue

As this is a very new issue, not much has been done to resolve it.

- July 1st, 2016, the United Nations General Assembly adopted a draft resolution named "The United Nations Global Counter-Terrorism Strategy" (document A/70/L.55), however, it only lightly touched on the subject of UAV's and their effect on warfare.
- April 8th, 2015, The United Nations Human Rights Council adopted the resolution on "Ensuring the use of remotely piloted aircraft or armed drones in



counterterrorism and military operations in accordance with international law, including international human rights and humanitarian law" (A/HRC/RES/28/3), however, the United States, the United Kingdom and France, among others, voted against and with these three not agreeing to a resolution there are obvious compromises that have to be made to get these significant countries onboard.

- December 12th, 2019, the Arms Trade Treaty (A/RES/74/49), was set by the General Assembly, however, 54 countries have not joined the treaty which makes it irrelevant to for example the United States.
- Furthermore, countless reports have been written addressing the issue and many experts have warned for the consequences drone warfare may have, yet not much has been done to make definitive rules and regulations.

Possible Solutions

The following are solutions delegates can use to write their resolution or clauses:

- Agreeing to rules and regulations for the production, exportation, importation, and trade of not only combat UAVs, but also commercial drones, in order to prevent the misuse of UAVs.
- Agreeing upon rules for the military deployment of combat and surveillance UAV's and improving transparency between countries in terms of use, trade, and production of UAVs.
- Creating rules and regulations for UAVs using AI, so that it will be easier to define the accountability of the decisions of the AI.
- Offering help to those heavily affected by drone strikes.
- Setting rules in order to police the use of UAVs in terms of espionage and the breaching of privacy law.

Appendix/Appendices

- "drones have re-spatialized the concept of war" ~Hugh Gusterson (2016), <https://studenttheses.universiteitleiden.nl/access/item%3A2660055/view>
- "With artificial intelligence we are summoning the demon" ~Elon Musk (October 9, 2014), <https://www.cnet.com/news/elon-musk-we-are-summoning-the-demon-with-artificial-intelligence/>.

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