**Forum:** First General Assembly

**Issue:** The Use of Military Drone Technology

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**Introduction**

The military drone technology has a long history that started with the first aircraft and turned an unmanned flying machine into a powerful weapon. Many countries are currently developing or are in possession of various UAVs (Unmanned Aerial Vehicles) that are performing different functions. Mostly used for surveillance and collecting of intelligence data, they can also be equipped with weapon and can be used to conduct “targeted killings”, a euphemism used by the US Army to describe assassinations performed by drone strikes. Israel, China and the United States are currently competing for the market domination in drone production, while the latter is also dominating in the amount of preformed strikes by the UAVs. Although the technology is constantly being perfected, many civilians die due to these attacks and it has caused serious discontent among many nations. Despite this, reducing the number of casualties from the army, the removal of a human element by the use of military drones also signifies a more mechanical, robot-like warfare. Fast elimination of “target” terrorist and military personnel without trial has sparked debate among the international community. The role of the United Nation in solving this controversial problem is to be able to find a balance between the protection of lives of soldiers with perfection of weapons and reducing the number of deaths of civilians together with the danger of dehumanization of war.

**Definition of Key Terms**

***UAV***

Unmanned Aerial Vehicle, mostly used for unarmed surveillance drones (“eyes in the sky”) However, it can mean any flying drone.

***UCAV***

Unmanned Combat Air Vehicle, it is an UAV that carries bombs or missiles.

***UGV***

Unmanned Ground Vehicle, a drone that operates on ground. Is mostly used for demolition and demining operations can also carry heavy equipment and weapons and even wounded soldiers in addition to performing surveillance missions.

***UUV***

Unmanned Underwater Vehicle, it is a submarine drone that is mostly used to recover items from the sea floor. Autonomous Underwater Vehicles (AUVs) are under development. They will use AI algorithms to be involved in search missions and hunt submarines and surface ships.

**Remotely piloted system**

A system that is controlled by an operator and it can have some pre-programmed actions to avoid crashing and returning if signal is lost.

**Semi-autonomous system**

A system that can work on its own, however, an operator can intervene at any time and take control over all of the functions of the drone.

**Fully autonomous** **system**

A system that is designed to work without an operator and it does not require a command-link.

**Combat surveillance**

Human pilots use radio control to fly a drone to different waypoints to scan and mark enemy positions.

**Tactical reconnaissance,**

Mini drone flies on autopilot to predesignated targets to take pictures before returning to a home base.

**IHL ( International Humanitarian Law)**

 A set of laws applicable to an armed conflict

**Background Information**

Countries that conducted drone strikes: United States, Israel, United Kingdom, Pakistan, Iraq, Nigeria, Iran, Turkey, Azerbaijan, Russia, United Arab Emirates. According to New America’s World of Drones database countries can be put into three categories: those that have used drones, those who have drones but have not used them and those that are still developing them. By 2020, 11 countries used drones, 27 possess them but never used and 28 are developing them. When it comes to military capabilities of this weapon, US Air Force tier system of classification is used: Tier I is low altitude and endurance drones, e.g. Orbiter; Tier II is medium altitude and endurance e.g. the Reaper and Tier II+ includes high altitude and long endurance drones, e.g. the Global Hawk. Mini and micro drones are not classified.The biggest producers and exporters of drones are the United States, China and Israel.

**Ways in which military drones can be used:** https://www.israeldefense.co.il/en/node/35396

***1.*** ***ISR (intelligence, surveillance and reconnaissance) activities.***

By monitoring the security forces during planning and conducting an attack, the actions of assailants can be coordinated and the perimeter can be secured. This increases the effectiveness of the attack. For example, in the 1980s during the Iran-Iraq, Iraq started to develop its Mohajer-1 drones for surveillance. It performed reconnaissance missions by flying over the frontlines.

***2.*** ***Weapons***

Apart from the drones that can conduct an attack, such as the ones made to carry weapons, like UCAVs, the simple UAVs can also be easily turned into IEDs (Improvised Explosive Devices), which will make them a small flying bomb. These IEDs can be used for terrorist attacks in public spaces as well as for targeting important infrastructure, such as electric or telecommunications grids. For example, Houthis have used military drones to perform strikes on Saudi Arabian oil facilities. UAVs were used to carry missiles to specific targets which included the precision greatly.

***3.*** ***Neutralizing other UVAs***

By flying drones close to the UVAs employed by the military or law enforcement units, the operation of the latter can be disrupted, as they would be focused on avoiding collision in mid-air. Additional equipment can be attached, such as a net or jamming tolls that can catch or disrupt the activity of other drones.

**History of drones:**

 The first drones were developed during World War I and Dayton-Wright Airplane Company’s rail-launched Kettering Aerial Torpedo “Bug,” developed in 1917 can be considered to be the “grandfather” of all drones. It was pilotless and its purpose was to fly to the target using preset controls and drop to the ground where it would detonate. In the meantime, Elmer Sperry, a person who invented gyroscope began to work on building a radio-controlled drone, that would be called an “Aerial Torpedo”. During World War II German army developed drones with glider wings that were dropped from planes and then guided to targets by bombardiers. In 1943, GB-4 was developed that was the first “television-guided weapon”. However, the image was very low-quality and could only be legible during good weather. At the same time, the British began their Operation Aphrodite, where a plane would be loaded with explosives. The pilot would fly the plane until it crossed the English Channel into Europe and then parachute out, while the drone would be further guided to the target by the use of onboard camera. In 1946, the “Pilotless Aircraft Branch” of the U.S. Air Force was established to develop drones. In the 1950s Ryan Aeronautical Company developed new models called “Firebees” that had some amazing qualities such as flying up to 60,000 feet. For the next two decades, the drones were mainly built to reach the potential of the “Firebee”. In the 1960s drones were used for reconnaissance missions in Cuba and Asia: North Vietnam, Laos, China. The UAVs were used for spying and taking photographs of military bases as well as to document the efficiency of dropped bombs. By 1970s the drones could be operated from the ground instead of using airborne mothership. During the Vietnam war several modifications were tested, one of the being the listening ability. Such drones could receive and relay the signals from sensors. However, during the test, the equipment didn’t show to be reliable, so the project was closed down. Another program was developed, that is called “Remotely Piloted Aerial Observation/Designation System”, where a drone would use a laser to point to the target in order to give specific directions for the missile.

**Recent Drone Strikes**

***Drone attack of Saudi Arabian oil facilities***

On September 14, 2019 a major oil processing plant in Saudi Arabia suffered a drone strike. A political group called Houthi from Yemen has taken responsibility for the attack. This event immediately caused tensions between the world leaders, as the United States believed that Iran was behind the attack, by sponsoring the rebels and supplying them with drones. The incident was not the first one in the Saudi-Yemen conflict. Since the start of war in Yemen in 2014, when Houthis seized control of the government, Saudi Arabia conducted a series of bombings on the country to ouch the rebels back and restore the government. This devastated an already impoverished country with contunous bombings and relations between the countries have been very tense. In 2018, Houthis initiated drone strikes of other oil infrastructure in May and an airport in July. What makes this incident significant is the fact that the target, Abqaiq region, is not only the major oil processing plant in Saudi Arabia, but it was also called the most important oil facility in the world. The incident caused about a half if the country’s daily oil production to be suspended, which is quite significant considering that Saudi Arabia is the largest oil exporter in the world. Moreover, for the first time in history, Yemeni drones were able to go that far into the Saudi territory and despite Saudi’s enormous military expenses, the attack was not prevented. Lastly, according to the estimates of experts, the drones used in the attack costed less than $15,000. This means that it can be quite cheap to target very important infrastructures even in countries with very developed military. This incident has provoked many questions about the possible uses of drone technology.

***U.S. Strike in Iraq Kills Qassim Suleimani***

On 3 January, 2020 Donald Trump authorized a drone strike that led to the death of Iranian General Qassim Suleimani. MQ-9 Reaper drone fired its missiles into Suleimani’s convoy leaving the airport. The United States justified the attack by referring to the military activity of the general in the past as well as the death of the American contractor in December of 2019. It was said that Souleimani caused deaths of thousands of soldiers in Iraqi war, because he supplied the insurgents with training and advanced bomb-making equipment. Moreover, the general was blamed for planning attacks on American diplomats and service members in Iraq and other destabilizing activities across the Middle East. General Suleimani was one of the most important figures in the Iranian government and Javad Zarif, Iran’s foreign minister, called the attack an act of “international terrorism”. This incident has brought some interesting issues associated with the drone attacks. Just before the strike was conducted, Secretary of State, Mike Pompeo has said that there was an 'Imminent attack taking place' and that Iran must be stopped before it’s too late. Interestingly, in international law self defense, or in other words, a strike on an enemy to prevent an attack is only lawful if the attack was imminent, which is the exact word given by Pompeo.

**Major Countries and Organizations Involved**

**Israel**

Israel was claimed to be the biggest drone exporter in the world by 2013, it accounted for 41% of all export drones from 2001 to 2011. It can be said that by 2019 it is still in the top 3 exporters; however, no exact information can be obtained as the country is very secretive of its drone deals. Stockholm International Peace Research Institute (SIPRI) was able to compile some kind of database despite the lack data, some of the recipients of Israeli drones are the United States, the United Kingdom, Canada, France, Australia, Germany, Spain, Brazil, India, China, the Netherlands, Azerbaijan, and Nigeria.

**United States:**

The United States had been using drones since the 1960s, mostly for surveillance. Following the 9/11 attack, the Department of Defense and the Central Intelligence Agency decided to use UAVs to perform targeted killings of al-Qaeda and Taliban soldiers and leaders. Following that, military bases were set up in Pakistan and Afghanistan, however following many deaths of civilians, in 2011 the Pakistani government demanded the removal of military personnel and drones from the Shamsi Air Base. In 2009 Obama’s government had to officially acknowledge the targeted killing program. Moreover, all-military aged males in foreign strike zones were considered to be potential targets, including high-value terrorists that are American citizens. The official position of the US military is that drones allow to use less soldiers thus saving many lives, moreover, the data collected by the intelligence services allows to make strikes very precise and with very little civilian casualties. This also means that the criminals and terrorists will not be taken alive, which can be argued removes all of the administrative and political hassle for the Americans. To actively develop that strategy, in 2012, the Air Force recruited more drone pilots than aircraft pilots. In addition, Obama’s administration revealed the existence of Tuesday meetings where the targets of drone strikes were being discussed. In media these meetings are called “Terror Tuesdays”

The use of drones by the United States was not left unnoticed and caused many deaths on the American side as a revenge for the deaths of victims of the strikes. For example, on May 1, 2010, Faisal Shahzad, a Pakistani-American, used a car bomb in Times square. After the arrest, he told the judge: “When the drone hits Afghanistan and Iraq, they don’t see children, they don’t see anybody. They kill women, children; they kill everybody. They’re killing all Muslims.”

**Afghanistan**

The first time a drone strike was performed in Afghanistan was in 2002, when the US forces believed that a man named Daraz Khan was Osama bin Laden. He was killed by a Hellfire missile dropped from a Predator drone. Following that incident, the US military conducted many more strikes in that country. By 2019, Afghanistan became the most bombed country in the world. In response to the strikes, starting from 2007, around 150 NATO personnel, both military and civilian, were killed by the Afghan military and national police forces that were trained by the coalition. The killings are mostly conducted by the individuals from the tribes whose land had been under drone strikes and are often justified as revenge for the families that were killed during the strikes.

**Iraq:**

Iraq is another country that has been greatly affected by the use of drone warfare. Starting from the 1980s, during the Iran-Iraq war, Iraq started developing its Mohajer-1 surveillance drones to fly over the frontlines. In the 1990s the US started flying its drones over the country. It is unclear how many Iraqi UAVs are now employed, most of them being either American or Chinese. Iran, Iraq, Israel, Italy, Spain, Turkey, the United States, and the United Kingdom are the countries that—are believed to have operated drones over Iraq in 2019. The United States, the United Kingdom, Italy, Spain, and Turkey are thought to have regular missions, while Israel, Iraq, and Iran have conducted intermittent operations.

Drones in Iraq are mainly used for three reasons. Please note that the following includes not only UAVs from the Iraqi side, but any drones used on its territory. The first one is to fight ISIS. The United States, United Kingdom and Iran have used their combat drones to attack ISIS groups. At the same time Italy and Spain started reconnaissance missions as well as identification of targets for Kurdish and other allied forces on the ground. Another use is to attack Kurdish groups. In 2019, Turkey has launched its Operation Claw and Iran has conducted multiple strikes in the north of the country. Lastly, drones are used to attack Iran. Israeli and American UAVs are employed to target a coalition of Iraqi paramilitary groups called Popular Mobilization Forces , which is aligned with Iran.

**Democratic Republic of Congo:**

UAVs have been employed in DRC as part of the United Nations Organization Stabilization Mission. In order to protect civilians from the conflict in eastern Kivu regions that errupted after the Rwandan genocide. “Force Intervention Brigade” (FIB) offensive battalion was created by the United Nations in order to neutralize the hostile armed groups in the county. FIB is authorized to use unarmed UAVs for surveillance to monitor the arms embargo. The use of this technology has been quite successful as it allowed to collect information in a fast and efficient way. Moreover, the drones have not only been employed to help resolve the conflict, but also aid civilians in more ordinary situations, such as warning the people before an attack or monitoring dangerous situations on the ground. For example, in 2015, a pilot was able to notice a capsized boat, which allowed to promptly evacuate the passengers and save many lives.

**Timeline of Events**

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| **Date** | **Description of Event** |
| 9 September, 2001 | Terrorist attack in the United States |
| 2006 | Hezbollah attack of Israeli warship |
| 2016 | Islamic State in Iraq IED attack of Kurdish troops |
| January 2018 | Drone attack of Russian bases in Syria |
| August 5, 2018 | Alleged drone attack of Venezuelan President Maduro |
| 14 September, 2019 | Drone attack of Saudi Arabian oil facilities |
| 3 January, 2020 | Qassem Suleimani’s assassination |

**Relevant UN Treaties and Events:** http://www.article36.org/wp-content/uploads/2018/09/Mapping-UN-and-state-activitiy-on-armed-drones-July-2018.pdf

* Ensuring use of remotely piloted aircraft or armed drones in counter- terrorism and military operations in accordance with international law, including international human rights and humanitarian law, 15 April 2014 **(A/HRC/RES/25/22)**
* Protection of human rights and freedoms while countering terrorism, 19 December, 2017 **(A/RES/72/180)**

**Previous Attempts to Solve the Issue**

Drones are not specifically mentioned in any treaties or other international law documents. However, their use has to follow the regulations of the IHL, when it is used as a weapon. All of the resolutions that had been passed about the issue only aim to raise awareness on the issue of militarized drone warfare, ensure that countries follow the international law and call for an organization of an international panel of discussion.

The main problem that arose when trying to solve the issue was the fact that there are no specific international laws speaking of the use of drones. Given the ability of this technology to fly over the territories of other countries and perform targeted strikes, the issue is whether they can be considered as conventional warfare or whether they have to be put in a separate category. By applying the AI, this technology can be operated by machines which raises further questions of who will be held responsible for any crimes committed using this warfare.

 By finding ways to regulate the use of UAVs nations, that are not militarily strong enough to possess anti-aircraft warfare will be able to get more protection for their civilians and soldiers. Drones provide a significant advantage to the side that is using them, by allowing them to conduct operation with little to no military personnel, in the areas difficult for access. Therefore, the country that is attacked becomes very vulnerable and international laws must be established in order to prevent outrage when using such powerful technology.

**Possible Solutions**

Military drone technology is a very useful weapon for many countries as it is cheap to make and allows to perform the same military functions without risking the lives of soldiers. At the same time, often the victims of the attacks have no prior knowledge of the potential danger and are in a seriously weaker position. Dehumanization of the war occurs, where one of the sides is located miles away from the target, in complete safety, while the other side is unable to respond. Despite having a missile guidance system, many civilians die in drone attacks every year. It has been estimated that there have been around 6,786 drone strikes with over a thousand civilians killed including 300 children. Therefore, it is extremely important to be able to regulate the use of drone technology in order to minimize casualties and ensure that the use of drones follows the international laws.

The United States is a country that has conducted most drone strikes and thus some of the issues that have to be addressed relate specifically to that country. Dronified warfare is available to the Pentagon, CIA and the Army. While the former has to report about every attack conducted including the figures of casualties, the CIA does not have to report anything. This means that it is impossible to assess the legality and morality of such attacks as well as to have a number of civilians killed. Encouraging transparency and requiring reporting of every attack by all parties will allow to develop appropriate regulations based on the current statistics as well as discourage countries to act illegally and immorally as everything will be documented.

In 2006, the Israeli Supreme Court addressed the issue of target killings and has concluded that each decision has to be considered individually by referring to domestic and international legal requirements. This decision is still applicable to the current situation and can be used nowadays. Often the victims of such attacks are civilians that are suspected of being involved in terrorist activities and other hostilities. By establishing a legal body that could review the cases of target killings, the issue of legality of the use of this technology can be resolved.

Another issue that should be considered is the suitability of the international laws to the current technological advancements. In a 2015 report by Human Rights Watch and the Harvard Law School International Human Rights Clinic, the issue of automated drone warfare was discussed. If this type of weapon is completely controlled by a machine, current laws are not suited for resolving the issue of legality of the attacks that could be performed by such weapon. By current standards, any acts committed using the automated drone cannot be considered a crime, since there was no intent can be established. Moreover, another question is asked in the case of a software glitch leading to UAVs using lethal force on civilians. Should the engineer who programmed the software be held accountable for the deaths of these people?

The international law does not specifically mention drones so sometimes problems arise with the legal clarity of specific cases. Since no military units may be involved, an attack might not fall under the law. For example, in 2011 President Obama said that the attack in Libya did not count as the use of military force as there were no “troops on the ground, [and] that Libyan forces are unable to fire at them meaningfully’’. Another problem could arise, if a person commits crimes on the territory if the non-belligerent country and is targeted by a drone. In this case it is unclear whether the regulations of the IHL can be applied, as technically the countries in consideration are not involved in an armed conflict. Therefore, by designing international laws specific to the use of military drone warfare, will allow to resolve the issue of legal clarity.

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