

Disarmament Committee

Proliferation of Drone Technology



Forum	Disarmament Committee
Issue:	Proliferation of Drone Technology
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Introduction

Drones have a variety of applications, most commonly known for their military use. As they rise in popularity in militaries across the world, effective policies need to be developed to keep up. With recent technological developments, these high-tech tools have changed how wars and military operations are carried out. Also known as unmanned aerial vehicles (UAVs), the earliest predecessors were already found in 1849 Austria and have now grown into precise weapons for combat use [Daly]. Their development progressed over time and their use came to a sudden rise in the 1980s after Israel's successful implementation of them in their military [Israel].

The roles of UAVs started from surveillance, intelligence, and reconnaissance missions and expanded to network node relay, combat search and rescue, and electronic attacks. As our technology becomes more advanced, so should our regulations on them. While there are benefits to military UAV use, there is a lack of regulations and civilian education on them. There are a few other risks associated with these instruments, which this report will cover. These instruments have been gaining popularity at an alarming rate, posing risks to the excessive and illegitimate use of UAVs [Zwijnenburg].

Definition of Key Terms

Unmanned Aerial Vehicle (UAV)

This is a vehicle that is used in military combat and can be remotely operated or is autonomous. It is often equipped with offensive ordnance, target designators, or electronic

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interference systems designed to inhibit opponents [Guilmartin]. This is the term used to refer to drones with military use. These differ from cruise missiles as they carry munition instead of being the munition. Other names for UAVs are Unmanned Aircraft Systems (UAS) or drones.

Missile Technology Control Regime (MTCR)

This is a political understanding between 35 member states that aims to combat missile proliferation. It has been in place since 1987 and is a multilateral effort against weapons of mass destruction [MTCR].

Reconnaissance Missions

A type of exploratory military mission which surveys military territory [Reconnaissance]. These missions can aid in forming a war or action plan.

Autonomous Drones

These are drones that do not require a human operator to serve their purpose, and instead, use AI and special software. Some UAVs can be autonomous.

General Overview

Historical Drone Use

This can also be seen in the timeline, but UAVs have been used for a variety of combats, such as in Iraq, Afghanistan, Somalia, Pakistan, and more. Beginning with balloons that are capable of dropping bombs, and later becoming more developed and larger, drones have become highly improved in recent years.

It started with the AQM-Firebee, which was heavily employed in the Vietnam War after its first flight in 1962. It was until the 1980s, however, when UAVs became more developed, giving us full advantages. In 1975, Israeli Aircraft Industries produced the Mastiff, which was used in Lebanon in 1982. The Persian Gulf War of 1990 to 1991 also had UAV use, this time the model used was called the Pioneer. Another type of drone was later created called the Global Hawk. These were implemented in Afghanistan in 2002 and in Iraq in 2003. The Reaper was first used in Afghanistan in

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2007. Since then, all major military powers and groups have begun to use UAVs for surveillance of battlefields, including the political party Hezbollah [Taylor].

Combat Use

UAVs are employed in difficult-to-reach terrains where it can be risky to send a pilot. As the aircraft can stay in the air for prolonged periods, it is helpful for surveillance and giving troops the ability to see overhead at all times [Drones]. As they are equipped with a variety of instruments, they can gather a wide amount of data. This has led to their rise in popularity in militaries globally. They have also been used for more targeted killings, as their cameras and infrared imaging allow for more precision. Two key types of UAVs used in combat are the MQ-1B Predator and the MQ-9 Reaper [Drones].

Drone Ethics and Issues

There are a variety of ethical concerns about the use of UAVs that need to be taken into consideration when making policies about UAVs. Firstly, there are a variety of points of view that you can take to determine what is ethical and what isn't. There is deontology, divine command theory, social contract theory, and utilitarianism. When developing and regulating technology such as UAVs, the most popular lens is utilitarianism, which is focused on reducing harm. This issue is especially pertinent in regards to the use of autonomous UAVs in combat as there would be no operator making decisions.

The utilitarian ethics lens could be applied in policies that aim to reduce the civilian fatality rate, as they take this perspective. In the past, as many as 807 civilians have died as a cause of only American UAV strikes, contrary to what the technology aims to do [Purkiss]. Since UAVs are more precise than previous military technology, a goal of UAVs is to carry out more precise and targeted killings. However, there are still many civilians that have died as a cause of these strikes anyway.

Another issue lies with the drone operators, since they are removed from being directly in combat, the effects on the operators should also be taken into consideration. This type of combat is different from previous types of combat, and should be treated differently too. There is a variety of



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research that has been done on this topic which reveals that there are detrimental effects on the mental health of drone operators [Wallace].

Other general issues that should be covered in resolutions such as airspace and the age of the technology, as well as potential environmental effects. Certain airspaces determine what regions drones may fly in, but this can be quite confusing. Countries have their laws already implemented on a national level, but international agreements need to be improved upon.

Privacy Risks

One main concern of UAV use is the violation of citizens' right to privacy. UAVs are often equipped with cameras and microphones. Recordings that UAVs make breach Article 12 of the Universal Declaration of Human Rights, "No one shall be subjected to arbitrary interference with his privacy, family, home or correspondence, nor to attacks upon his honor and reputation. Everyone has the right to the protection of the law against such interference or attacks." Using UAVs can be helpful for the body of law enforcement in observing communities and prosecution. 31 member states who are a part of the European Union Aviation Safety Agency (EASA) have already made regulations on drone use, but there is still a global concern regarding privacy [Topics]. Other implemented regulations are limiting the airspace in which drones may fly or who operates them.

Major Parties Involved


United States of America (USA)

The USA is one of the world's largest producers and consumers of drone technology. The USA has been a part of the Missile Technology Control Regime (MTCR) since 1987. A large part of their defense has become UAVs, seeing as they have carried out a variety of drone strikes in Yemen, Iraq, Somalia, Libya, Pakistan, Afghanistan, etc. They operate these UAVs from military bases around the world. The US exports fewer drones than Israel but still exports a significant amount, especially under the Trump administration. In 2018, a new export policy was adopted that aims to expand drone development. The US policy seems to be focused on increasing competition between countries [Orozobekova 13]. Amnesty International UK has also shown concern in regards to US drone strikes,

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pleading for a change to be made [US Deadly]. Especially as these strikes have been carried out unethically, gaining discernment from the international community. The US has violated the Universal Declaration of Human Rights as civilians have been robbed of their right to Article 3, “Everyone has the right to life, liberty, and security of person [UN]”.

Israel

Israel has been a global power in terms of UAVs as they have been using them in combat since the 80s. They proved to be effective as their small size and noiseless motor allowed for them to be difficult to detect [Guilmartin]. It is unsure how many UAVs Israel has, but this member state accounts for 60% of International UAV exports. They operate three known types of drones that can

Research Report | Page 5 of 12 
Model United Nations International School of The Hague 2022 | [XXXII Annual Session](#)

be armed and have been used against suspected militant targets regularly. Israel is a lead producer of drones and it is known that more than 50 countries are operating their UAVs [Israel]. Israel is not a part of the MTCR [MTCR]. Israel has carried out drone strikes in Yemen and Syria and is expected to increase its use of UAVs [Egozi].

However, Israel has been making improvements in anti-drone technology too. One example is the Drone Dome, a radar-based system [Israel]. Another example is Skylock anti-drone systems [Margit].

United Kingdom (UK)

The UK is another country with developed UAV weaponry. Like the US, the UK has been a part of the MTCR since 1987 [MTCR], and they have been using UAVs since 2007. They have also been involved in the US drone program [United Kingdom] and signed the Joint Declaration for the Export and Subsequent Use of Armed or Strike-Enabled Unmanned Aerial Vehicles on October 28th, 2016 [Joint]. The UK conducted a lethal drone strike against a terrorist target for the first time in 2015 [UK]. They have also revealed that they plan to work on creating a combat air system in the future which will have manned aircrafts [United Kingdom].

China

China is an influential drone exporter and it is not a member of any control regimes. Their exports are given regardless of which country is buying, leading to concerns for international security and relations. They have informally agreed to the 1987 MTCR Agreement even though their application to join was rejected in 2004. China emphasizes allowing any country access to drones to combat terrorism, which has been helpful for countries such as Jordan. Seeing as Chinese UAVs are cheaper and easier to access, this brings more safety concerns considering that the US is competing against China's UAV production [Orozobekova 11-20].

Timeline of Key Events

This timeline covers some important technological developments as well as important political events which may be of interest [Daly].

Date Description of event

1849 First Military UAV Use

1915 Drones used for Renaissance Photos by British

1917 Aerial Torpedo Developed

1935 First Modern Drone Developed

1948 Universal Declaration of Human Rights is Proclaimed 1961 UAVs used for

Espionage by US Army to Spy on DPRK 1973 Israel Develops Scouting and

Surveillance UAVs

1982 Battle of Jezzine, Drones used in Combat Affected the Outcome 1991 Gulf War

Constantly Surveyed by Drones from Beginning to End 1996 Predator Drone is Developed,

further developing weaponized drones 2001 9/11 happens, and the US Begins to Increase its

UAV Use 2006 The US Allows Drones in Civilian Airspace for Search and Rescue 2010

Smartphone Operated UAVs

2014 Arms Trade Treaty Goes into Effect




2015 UAVs shift to Commercial Use After Hitting 1 million Sales 2018 Civilian UAV leads to Major Crash in South Carolina

UN involvement, Relevant Resolutions, Treaties, and Events

There have not been any arrangements made specifically in regards to UAVs, but there have been many international agreements made on missiles in general and other weapons. These are some of such arrangements:

- Wassenaar Arrangement
- Missile Technology Control Regime (MTCR)
- 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: resolution / adopted by the Human Rights Council, 8 April 2015 (A/HRC/RES/28/3)
- The Arms Trade Treaty
- United Nations Security Council Resolution(UNSC) 1540 in 2004 (S_RES_1540)

Research Report | Page 7 of 12 
Model United Nations International School of The Hague 2022 | XXXII Annual Session

- UNSC Resolution 1441 in 2002 (S_RES_1441)

Previous Attempts to solve the Issue

The most defining action taken by the UN against UAVs is the resolution made by the Security Council in 2002. There are a few regulating arms treaties and charters such as those mentioned in the previous section. Due to their practical usefulness, there has been general apprehension towards regulating the use of UAVs. However, the UNODA has been making study on UAVs which have brought more attention to their effects [Tokpa].

Another notable attempt to solve this issue is the Arms Trade Treaty, adopted in 2014. A conference is held with the States Parties annually where participants will deliberate and exchange information [Dladla]. Other agreements include the MTCR, Wassenaar Arrangement, and the United Nations Register of Conventional Arms.

Civilians have even resorted to coming up with their attempts to solve the issue by creating the European Forum on Armed Drones. They have made a variety of calls to action to governments. Another civilian organization is PAX, who is investigating the effect of UAVs on civilian security [Zwijnenburg].

Possible Solutions

The most pertinent issues are civilian deaths and privacy concerns. The UN should address these both, which can be done in a variety of ways. Many member states already have their regulations, which could be adopted by the international community as a whole.

Various regulations may be put in place to create better agreements and international measures against drone proliferation and its effects. These may be tackled in a variety of ways such as stricter regulations on UAV use specifically regulating which occasions are reasonable for their employment. There could be a regulation that poses sanctions on a member state after a certain number of civilians is killed or one that requires member states to provide some sort of mental health support/ counseling for victims and military personnel. Stricter regulations on UAV operators may also be a helpful policy. An example of such a regulation could be that only military-trained

personnel are permitted to be drone operators. Other regulations on the number of UAVs each member state is permitted to have or make/buy in a given period.

Another issue is the enforcement of said regulations and legislations. The creation of a UN sub-body/group that regulates and enforces UAV laws and use may be helpful, or designating a specific conference for UAVs may also help enforcement. Sanctions, of course, should also be

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Other general policies may be to educate civilians on UAVs and how to operate them. Commercial drones may be of concern as well and should be covered in resolutions. Conferences to stimulate debate should be held as well. Old policies and regulations should be revised as well to reflect the change in technologies. Policies that encourage government transparency may also be appropriate for this topic.

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Appendix or Appendices

Please see the bibliography for useful links.



