



PAMUN XVI RESEARCH REPORT— Addressing the concerns regarding the use of drone

Introduction of Topic

Drones or Unmanned Aerial Vehicles (UAVs) are remote-piloted or self-flying aircrafts that are used by armies for surveillance and reconnaissance, as well as spy planes or strikes. Since their introduction, and beginning of their use based as a “hunter-killer system” there has been debate over the justification and morality of their use. Currently, the US is the world leader in drone technology and use, while China, Israel, Iran, Russia, France, Germany, Turkey, UK, and India also have drones according to the International Institute for Strategic Studies. There is a lot of controversy included in the scheme of drones. The military use of the predator program has led to civilian casualties, which has sparked debate in the United States, and Europe. Drones are also now a widely available hobby, which many enthusiasts enjoy using to shoot their own aerial videos or fly around, but they can be dangerous, and there is a need for their regulation.

In common use, that most frequently used name for UAVs is drones, but this is disliked by professionals and regulators due to its resemblance to male bees. The US Department of Defense uses the name Unmanned Aircraft System (UAS) as well as many aviation organizations and authorities. They have some specific uses including:

- Target and decoy for training purposes where pilots could practice with a target
- Reconnaissance for the collection of intelligence and spying
- Combat for high-risk missions, so as to limit the amounts of lives lost. These types are also known as drone strikes
- Logistics and carrying cargo
- Research and development to expand drone technology
- Drones are also used by UN peacekeepers, so as to collect intelligence to be used for pacific uses, and to draw a better picture of the situation
- Smaller UAS have been made available to the public for scientific and civilian entertainment uses. Drones are used to collect footage of out-of reach places for scientists to use, as well as aerial cinematography.

Definition of Key Terms

Unmanned Aerial Vehicle

An aircraft with the ability to navigate, either remotely by a pilot, or from onboard computers. Such technology may be preferred for missions that otherwise too dull, dirty, or dangerous for normal human pilots. Their uses go further than military technology, as they are used for commercial, scientific, and recreational purposes. UAVs are mostly associated and debated upon in the sense of military drones.

Civilian

A person not in the police or armed forces. In times of war, civilians are considered those who are too young or elderly, adults who do not carry weapons, or those do not show intentions of harming. Killing civilians during times of war is against the Geneva Convention, but many have been killed as a result of drone strikes.

Collateral damage

Collateral damage can be defined to be injuring of someone other than the target. In the case of military operations, it refers to civilians being killed. There is a big concern regarding drone use and collateral damage. In both Pakistan and Yemen there have been cases where intelligence has been insufficient and many civilians were lead to lose their lives. Usually drone strikes are intended to eliminate militants and high-danger criminals and terrorists, but end up taking the lives of innocent civilians.

Background Information

The main concern raised regarding the use of drones is the armed attack operations. Many drone strikes have been taking place in Afghanistan, Gaza, Yemen, Pakistan, and Somalia, in an effort to track and kill terrorists. Such strikes have, however, shown great collateral damage and have killed civilians and terrorists alike. Some estimates report ratios between high terrorists and civilians are as high as 1:50. In Pakistan, 90% of the people killed were not the intended target. These sorts of civilian casualties have created a climate where people in the affected countries are constantly being watched, and fear that they could be affected by a drone strike at any moment. The idea that a person or even a computer

half-way across the world is able to fly a drone carrying missiles is terrifying, and has caused a lot of people to live in fear and hatred.

UAVs definitely have advantages for the country using them as they save soldier's lives, and keep them away from danger in the battlefield. They are also less costly than conventional planes, and there is less risk of damage to military hardware. Furthermore, they operate for longer time periods than conventional planes, and have quick deployment times. On the other hand, they cause high rates of civilian losses, and can be destabilizing for a region as they are an invading force, and may cause civilians to turn into combatants.

There is also an implication regarding the ethical aspects of drone usage, since they are automated systems where there is no pilot to make decisions in uncertain and danger moments. Thus, the decision-making process is different from conventional warfare. As a result, casualties may be increased. While many separate countries have developed UAV regulations for both civilian and military uses, there is a lack of universal agreement over the uses of drones in the international warfare. Since it is new technology, drones are omitted in weapon treaties or other legal instruments of international law. However, international humanitarian law states that parties in a conflict must limit civilian casualties and only target combatants and military objects. International law has prohibited drones from carrying biological weapons. Militaries have also been accused of acting with drones despite limited information and intelligence of the targets. The International Committee of the Red Cross (ICRC) follows a case-by-case approach when trying to shape an idea of what laws apply to each situation.

Drones can be dangerous for planes and flights, as there is a danger of them intersecting a plane or one of the engines, which could be very dangerous. Since most of those drones have cameras which provide real time coverage, they could be used for spying, which can be unsettling. It is possible for one to use their drone to spy and potentially harm another person.

Major Countries and Organizations Involved

Pakistan

A country where drones strikes managed by the American Central Intelligence Agency (CIA) have been taking place to terminate terrorists and militants, but have been accused by some to have created a climate of radicalization against the US, and destabilization due to the killing of civilians. Since 2013, Pakistan has had drones of its own named *Burraq UCAV*.

United States of America

The world leader in drone technology and use. They have been able to benefit from the advantages of drone surveillance and predator programs since the Gulf War. Regulation there requires that drones weighing from 250 grams to 25 kilograms are registered to the Federal Aviation Administration once every three years.

United Kingdom

A country whose military used drones for reconnaissance purposes in the Afghanistan war of 2001. They are the biggest importers of drone technology. The main debate in the UK includes the regulation of civilian drone use, as citizens are afraid of any violations of their privacy, and drones can be used for illegal means as they are too small to be seen by radars and other technology.

Israel

The biggest exporter of drones, and have been using drones domestically and in Palestine for years. Along with the US, they are the pioneers of drone technology for military uses.

Yemen

A country where CIA drone strikes against Al-Qaeda in the Arabian Peninsula (AQAP) have been taking place. 113-144 drone strikes have been launched since 2015. Due to the civilian casualties they have caused, citizens in Yemen live under the fear of drone strikes.

Association for Unmanned Vehicle Systems International (AUVSI)

AUVSI is a non-profit organizations dedicated to promoting and supporting the unmanned systems and robotics industry through communication, education and leadership.

Timeline of Event

Date	Description of Event
Sep. 1975	Abraham Karem invents the Albatross in Karem Inc. in Lake district, California. His company later invented Amber, Gnat-750, and Predator drones.
2001	The first predator UAV program is created for the war in Afghanistan.
2011	A strike on a meeting of tribal elders killed some 40 individuals.

- 2015 United Nations Convention on Certain Conventional Weapons (CCW) held a discussion for experts and delegates to discuss the issues posed by the development of armed UAS.
- 17 April 2016 British Airways flight approaching Heathrow airport hits an enthusiast's drone, but was luckily not affected.

Main Issues

Drones are considered immoral, and their use for surveillance around the clock, and predator missile strikes has created an environment of constant fear and hatred in affected countries. Their use can be very beneficial, as they could save the lives of many soldiers. They have the possibility of being lifesaving in their anti-terrorism use, but there must be regulation so that their use does not violate international humanitarian law, and countries agree upon their use. As far as international law is concerned, UN rapporteur on human rights and counter-terrorism, Ben Emmerson, after an investigation on the civilian casualties resulting from drone attacks, criticized the lack of transparency as far as CIA and US drone strikes go. The fact that data and intelligence regarding the killing of civilians in drone strikes is troubling. In addition, there is no consensus on the laws allowing drone action and the procedure that must be followed to evaluate the situation and decide whether to strike.

A problem that drones pose also deals with the issue of sovereignty. For example, Pakistan has accused the US of violating their sovereignty. The latest case occurred in May 2016, when Prime Minister Nawaz Sharif described a drone strike in the area of Balochistan a violation of Pakistan's sovereignty. Drone strikes taking place in their country by third parties are considered infringements on sovereignty. Human rights organizations such as Human Rights Watch, as well as other activists, have condemned the absence of debate and transparency when it comes to the use of drones, especially in the case of the US. Drone strikes of Yemen and Pakistan, can be deemed as clear violations of international humanitarian law due to them killing only civilians or using indiscriminate weapons in areas with civilians. It is considered a violation of the laws of war, as necessary steps to limit civilian casualties were not taken.

It seems that the biggest problem that surrounds the international law aspects of drone use refers to the lack of transparency and debate on their uses. Often times, civilian casualties are a result of drone strikes, however international law allows the use of lethal force outside of armed conflicts only if it is necessary to save human life. Yet if one is unable to access the data of such strikes, then it cannot be known whether the action is necessary. In the case that there is violation of humanitarian law, the

attacker is obliged to pay compensations. Unfortunately, compensation has not been given in most cases. The laws of war were written during a time before drones, and it is now uncertain whether drone strikes are such an evolution that new war laws should be made to tackle drones specifically, or if the existing laws are suitable to address the issues that exist, and define warfare.

Civilian uses of drones can also be dangerous at times. According to United Kingdom's Civil Aviation Authority (CAA), 23 incidents of drone flight in airports including near-miss scenarios and a crash of a drone with an Airbus A320 at Heathrow airport. At the same time the American Federal Aviation Administration (FAA) reports 100 incidents every month, and the white house has had flights into its lawns. Drones can be extremely dangerous for large aircraft, as an intersection with one of their engines would lead to it breaking down. Drones could also be a public safety problem, as many use them to access and peek into off-limit places such as army camps, nuclear factories, or government buildings. Such technology could be used to collect intelligence for terrorist attacks, or other crimes. Lastly, drones could be used to violate other citizens' privacy, as their camera can be used to spy on people and invade their personal lives. Different countries have set a variety of regulations regarding drone flight, including altitude and distance from pilot restrictions as well as registration of drones and mandatory training. In addition, current radar technology is not designed to be able to "see" drone-sized flying objects, making it difficult for authorities to regulate their use. At the same time, interception technologies are advancing every day, with companies developing weapons that throw nets, to technology that disables drones' navigation systems and training raptors to catch drones mid-flights.

Possible Solutions

International regulation regarding the use of drones should be created specifying the circumstances under which countries should be allowed to use drones, and perhaps amend the international humanitarian laws that apply to drone use. Drones are currently widely in use, and statistics portray that their market and use will continue to increase over the next years. UN resolutions have not addressed the aforementioned issues, and the vacuum that currently exists should be filled.

Countries could also expand their technology so that civilians can be more easily identified, so that their death is avoided. Based on the limited information public has been able to access from drone strikes, it is not always clear as to what the situation of the drone strike included, and

National or even international legal panels should encourage transparency in drone strikes by holding hearings on the use of drones, and targeted killing policy. Some sort of report requirements covering the unclassified sections of drone missions from a legal/policy aspect should be made, so that the international community could have better access to expert legal opinion. A Meeting of Experts took

place organized by United Nations Convention on Certain Conventional Weapons (CCW) to discuss such issues of armed drones specifically. Such events could be expanded into the aforementioned panel.

Perhaps the most controversial use of armed drones has been their use for targeted killing. Meaning killing selected individuals by a state who are not in their custody. Even though they may be legal from a humanitarian law perspective, they would be abiding human rights regulation if and only if the killing of such individual is necessary to save other people's lives. This does not appear to be the case for many of the US drone strikes that have been carried out in Pakistan and Yemen. Hence, this matter should be better specified in legal matters.

The other problem such technology might have regards its limited technology allowing precise warfare. Manufacturers and governments suggest that drones have surgical accuracy, leaving the innocent untouched. Drone strikes have not exhibited such accuracy, causing many unnecessary deaths of innocent people.

Comprehensive and universal regulation of civilian drones could solve many problems around the globe. By working together, countries could implement plans such as the introduction of permits needed to fly drones, and regulations regarding the specifics of their use. In doing so, both the hobbyist will be able to use their gadgets safely, and governments could more easily implement such regulations, with the aid of technology being developed to tackle the problems civilian use of drones has.

Bibliography

- @Drone_Wars_UK. "What's Wrong with Drones?" *Drone Wars UK*. N.p., 09 Oct. 2015. Web. 04 Sept. 2016. <https://dronewars.net/2014/03/20/whats-wrong-with-drones/>
- News, BBC. "Drones: What Are They and How Do They Work?" *BBC News*. BBC, n.d. Web. 04 Sept. 2016. <http://www.bbc.com/news/world-south-asia-10713898>
- Bowcott, Owen. "Drone Strikes by US May Violate International Law, Says UN." *The Guardian*. Guardian News and Media, 18 Oct. 2013. Web. 04 Sept. 2016. <https://www.theguardian.com/world/2013/oct/18/drone-strikes-us-violate-law-un>
- "Drones are not Toys:theyre Dangerous and They Must Be Regulated." *The Telegraph*. Telegraph Media Group, n.d. Web. 04 Sept. 2016 <http://www.telegraph.co.uk/technology/2016/04/18/drones-are-not-toys--theyre-dangerous-and-they-must-be-regulated/>
- Verbruggen, Maaïke. "Discussing Drones at the UN Headquarters." *UNODA*. United Nations, 27 Oct. 2015. Web. 4 Sept. 2016. <https://www.un.org/disarmament/update/discussing-drones-at-the-un-headquarters-2/>