

Committee/Council: Social, Humanitarian and Cultural Committee

Issue: The use of drones for humanitarian relief in conflicts and natural disasters

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Introduction

It is known that the world we live in is confronted with numerous problems and concerns daily. We are used to listening to people talking about the European financial crisis, the rise of right-wing ideologies, about new elections and political crises. What we are not being informed about are the consequences that such phenomena have on the lives of a huge number of people; on the lives of those people who actually and physically deal with such unpredictable and multiplying consequences. At the same time technology booms and new breakthroughs mark our daily life. One aspect of this technological advancement is the development of drones who can help minimizing the distances as well as enable humanity react to extreme situation faster and more efficient.

The goal of this year's Social, Humanitarian and Cultural Committee is to find a way to combine the drones' technology with the humanitarian aid provided to the people in need. Simultaneously, the international community needs to set the necessary rules and legislation regarding the utilization of drones. Only this way one can be ensured that they are not to be used for other illegal activities and to violate the national sovereignty of states.

It is not a secret that our world faces lots of problems, with the most important one being the rapidly increasing number of conflicts. Conflicts that leave behind destroyed regions, people who are afraid and children who have lost their parents and family. Those are the people who need the support of the United Nations. However, the war and the political conflicts as well as terrorist attacks and nuclear weapons are not the only means of disaster. Those are the issues distracting people from taking care of our planet, which is also reaching a dead end. Earthquakes, tsunamis and volcanos among others are also some factors leading to humanitarian crises and to people who are in need of empathy and support.

It is therefore the duty of the United Nations to negotiate and find ways to profit from the technological breakthroughs and to facilitate them in order to

provide conflicted areas and areas that have been destroyed by natural disasters as well as the affected population with the needed guidance.

Definition of Key-Terms

Drones

“A remotely controlled or autonomous aircraft with no pilot on board.” THE FREE DICTIONARY

Conflict

“A prolonged armed struggle” OXFORD DICTIONARIES

Natural Disasters

“A natural event such as a flood earthquake, or hurricane that causes great damage or loss of life.” OXFORD DICTIONARIES

Tsunami

“An extremely large wave caused by the violent movement of the earth under the sea” CAMBRIDGE DICTIONARY

Earthquake

“A sudden violent movement of the earth’s surface, sometimes causing grate damage” CAMBRIDGE DICTIONARY

Flood

“An overflow of a large amount of water beyond its normal limits, especially over what is normally dry land” OXFORD DICTIONARIES

Hurricane

“A violent storm with strong circular winds of at least 72 miles per hour.” CAMBRIDGE DICTIONARY

Background Information

As mentioned above drones are defined as remotely or autonomous controlled aircrafts with no pilot on board. But how did those “drones” become so popular? In fact, their history begins in the 20th century, when the military research

presented a lot of useful and widely used technological information. Drones are very closely linked to GPS-Systems, which means that the development of such technologies launched their development as well. As technology becomes more successful and advanced and costs fall, the Unmanned Aerial Vehicles (UAVs) are developing rapidly.

Unmanned Aerial Vehicles vs. Drones

When listening to the word Drone or UAV we are used to making a connection to conflicts, wars and bombings. However, those terms are not only referring to such uses of drones, but include a larger category of vehicles. Before closely analyzing the existing types of drones, it is of vital importance to clarify the difference between the terms “drone” and “UAV”. The difference between those two is that the drones are a specific sub-category of UAVs. On the other hand, UAVs refer to all types of unmanned vehicles and are a large category, which includes drones. This means that a drone is always considered to be a UAV but a UAV is not necessarily considered to be a drone. The type of UAV that we are going to analyze and discuss about is the drone, which also includes sub-categories.

Types of drones

Drones can easily be divided to sub-categories according to their utility, to their optical features or according to their equipment and quality. The following

| Number Propellers | of | Size | Range | Equipment |
|--------------------------|-----------|----------------|--------------------|-------------------------|
| Tricopter | | Nano Drones | Close Range Drones | Drones with Camera |
| Quadcopter | | Mini Drones | Short Range Drones | Drones with FPV |
| Hexacopter | | Regular Drones | Mid-Range Drones | Drones with GPS |
| Octocopter | | Large Drones | Endurance Drones | Drones with stabilizers |

table clarifies the existing categories of drones:

The utilization of the abovementioned features according to each situation can easily lead to the provision of the needed guidance to the people who are in danger of losing their lives and homes.

How can drones help in case of a humanitarian crisis?

While the media and the general news coverage focus on the negative effects of drones and their harmful uses, they have also discovered their more positive application in the humanitarian sector. In fact, the first time the United Nations launched such a program was in December 2013 over the Democratic Republic of Congo and Rwanda. Those drones are mainly used for actual surveillance and monitoring tasks as well



as to remind the hostile fighters that they are being observed. Other such examples can be Vanuatu, where drones are being used to assess a rapid damage after the region had been hit by Cyclone Pam in 2015.

Moreover, in Ecuador, following this year's heavy earthquake, drones were used to find out how the region looked like after the damage. And lastly, Haiti has been observed by drones of the International Organization for Migration (IOM) since 2012 in order to check the area and estimate the damage caused by a hurricane.

Despite the fact that there are so many successful uses to look up to, those are still considered to be experimental applications of drones due to the fact that there is no legal framework to base those actions on. However, the aerial imagery technology has proven itself to be a trustworthy innovation in the way we respond to disasters.

Given the large amount of imagery that can be provided by just a single drone flight, it is spectacular how many applications of drones can be used in order to cover all of the aspects of a damage in a region. In a world where you can browse the street of a region and get transferred to a place without even leaving your desktop, a zoom into a hilltop of a war-torn area should be taken for granted. And this is the goal of the drone technology as far as the humanitarian aspect is concerned.

Drones have the ability to ensure access to better up-to-date information and lead any team to



accurate decisions. Moreover, drone systems such as helicopters can be equipped with cameras and livestream important data back to a ground station. And last but not least, drones have the ability to offer help to injured people or transfer useful aid to places that have been hit by a natural disaster in case of emergency or even transfer people to nearby hospitals. It is therefore obvious that drones can do no less than help in cases where a simple group of people cannot offer the needed help within the available time.

Drones & the problems they may cause

We have already analyzed how useful drones can be and what they can offer to our society in a very small amount of time. However, they haven't been officially legalized yet. There is therefore a broad consensus that the humanitarian UAV space needs a solid policy and code to get covered as soon as possible.

As mentioned above drones have not been legalized yet, due to the fact there is no legal framework to cover this issue. One main reason why this is happening is the fact that this is a very sensitive issue as far as privacy is concerned. It is not clear under which conditions drones should be used and this may lead to several social issues. There have already been some complaints on the fact that people feel like they are being continually observed and as a result they cannot continue their lives normally. The very high costs and the coordination with the human pilots as well as the lack of the needed law system also play their role as obstacles along the way of the drones' technology.

Last, but not least, it is necessary to mention the security concerns in each state where drones are used. The fact that a drone can have a complete overview of a country can be considered as a potential threat to the national security and sovereignty of a state as a leak to the security system can enable a third-party (person or even a state) acquire information and specific locations of groups and buildings. As such security concerns over the use of drones are raised and must therefore be tackled.

Major Countries and Organizations Involved

United Nations Office for the Coordination of Humanitarian Affairs (OCHA)

OCHA is a UN body responsible for humanitarian assistance issues. OCHA coordinates any action related to humanitarian support while financing any projects of Non-Governmental Organizations in this context. Furthermore, OCHA is responsible for policy-making as well as advocating parties involved. Last, but not least it aims at information exchange and management for optimizing the planned methods and projects.

OCHA is actively engaged in various humanitarian crises. More specifically, it has classified the crises in Iraq, Syria and Yemen as the most pressing of the time while also providing aid to the conflicted zones and famine affected in the DR Congo, Nigeria, Ethiopia and Somalia.

International Committee of the Red Cross (ICRC)

The Red Cross was initially formed in February 1863 in Geneva to provide wounded soldiers with the necessary humanitarian aid. After the adoption of the First Geneva Convention in 1864 governments were obliged to care for war victims while the Red Cross would initially have a coordinating role. Currently the International Committee of the Red Cross is operating under the rules of the four Geneva Conventions and their Protocols actively involved in aiding civilians and soldiers in war-torn areas. The Red Cross also played a pivotal role during the two World Wars and after their end it continued pressing the international community for the adoption of an international humanitarian law.

The ICRC is voluntarily funded by States, supranational organizations, the Red Cross Societies and other public and private donors. The annual expenditure of the Red Cross for funding its projects and for fulfilling its functional needs reach app. 1,73 billion US Dollars. Its staff consists of around 14,500 people operating in around 80 different countries in 4 different continents.

United Nations High Commissioner for Refugees (UNHCR)

The UNHCR is the UN Refugee Agency responsible for the protection of the human and civil rights of refugees and displaced populations. The UNHCR “works to ensure that everybody has the right to seek asylum and find safe refuge, having fled violence, persecution, war or disaster at home.” As such, this UN agency is actively involved when it comes to short or long term wars leading to humanitarian crises.

Syria, Iraq and Afghanistan

Although there are numerous ongoing conflicts in the world, the Middle East is considered to be one of the most instable regions worldwide. Although one cannot neglect the other ongoing conflicts, the Syrian Civil War, the Iraq War and the War in Afghanistan can be considered the most severe ones based on the number of casualties annually; there are estimated around 50k fatalities annually in all three of them combined. With million refugees, asylum seekers or internally displaced people Syria, Iraq and Afghanistan are in great need of humanitarian aid. Numerous NGOs, UN Agencies and UN peacekeepers have already been deployed to offer their assistance to the populations in need. However, the ongoing conflicts and the extent of the war-torn areas do not make it easy for the deployed personnel to track down and reach all groups. Therefore, the use of drones would help in this field. However, it should be noted that NATO has deployed drones for surveillance purposes in its operation areas therefore this can prove that the deployment of humanitarian/civil drones would not be that difficult.

United States of America

The US have been one of the leading nations in the development of drones. Currently, the US Army is considered to possess the largest fleet of Unmanned Aerial Vehicles used for surveillance all over the world and especially in conflict areas. Simultaneously, drones have been deployed for years to monitor the US-borders with Mexico. Regarding the use of drones for humanitarian assistance the US decided to deploy drones for damage inspections and search for survivors of natural disasters after the States were hit by Hurricane Katrina in 2006.

United Kingdom

Currently, the United Kingdom is another key-developer of drones' technology. According to a 2013 Guardian Article the British military owned 500 drones at the time; a number which has increased in the meantime. As far as civil drones are concerned, the British Civil Aviation Authority has created a legislation regarding their use to ensure the safety of civilians around drones. It should be noted that regulation is stricter for camera-carrying drones recording data.

European Union

Drones is a fast-developing technology sector in the European Union. Smaller civil drones are frequently used in the European Union for surveillance and risk-management purposes. However, there is no common legislation related to their utilization and laws differ from state to state. Therefore, although basic rules exist, they are sometimes not that coherent making a universal use of drones more complex. To improve the existing situation the European Commission called for the development of three different categories according to their risk and performance. This categorization was published in 2015, however there are still many legal problems that need to be addressed.

Timeline of Events

| Date | Description of event |
|-------------|--|
| 1864 | Signature of the initial version of the First Geneva Convention related to humanitarian aid in war-zones and establishment of the Red Cross. |
| 1949 | Signature of the updated Geneva Conventions, which set the framework for humanitarian aid in conflicts |

| | |
|---------------------|---|
| 2012 | The IOM started flying drones over Haiti |
| December 2013 | The interference of the United Nations in the issues of the Democratic Republic of Congo and Rwanda via the use of drones |
| March 2014 | In Philippines drones were used to collect real-time information and pictures in the aftermath of Typhoon Haiyan |
| September 2014 | Medical payload delivery using drones in Papua New Guinea |
| 2015 | Vanuatu was hit by Cyclone Pam; drones were used for disaster assessment operations |
| February-March 2015 | Flood mapping for disaster risk reduction in Tanzania |
| July 2015 | Great Manchester Fire and Rescue Service deployed their first drone to the emergency response operations |
| September 2015 | Post-earthquake mapping by drones in Nepal |
| April 2016 | Ecuador was hit by a magnitude-7.8 earthquake; drones were utilized for damage inspections |
| May 2016 | Adoption of the “Agenda for Humanity” sets out 1500 commitments of UN Member States related to humanitarian assistance. |

Relevant UN Treaties, Resolutions and Events

Universal Declaration of Human Rights (UDHR)

The UDHR is a declaration adopted by the UN General Assembly in 1948. It set the basic principles of the international community and the fundamental human rights of the people. The idea of humanitarian aid is based on this declaration.

Agenda for Humanity

The “Agenda for Humanity” is the outcome document of the World Humanitarian Summit, which took place in May 2016 in Istanbul, Turkey. The Summit was organized by UN OCHA. The “Agenda for Humanity” sets out 1500 commitments by the UN Member States and other organizations related to humanitarian assistance and conflict prevention in war-torn areas. These commitments are based on the following “5 Core Responsibilities”:

1. Prevent and end conflicts
2. Respect rules of war
3. Leave no one behind

4. Work differently to end need
5. Invest in humanity

Security Council Resolution 2098 (2013)

By adopting this resolution, the Security Council called for the establishment of an aerial monitoring system in DR Congo. The UAVs/drones were used both to monitor the arms embargo in the country by observing armed groups and gradually were installed for humanitarian purposes.

Previous Attempts to solve the Issue

Although the issue of the use of modern technology in the field of humanitarian aid is a recent one, the international community has been working for many decades on the methods and the principles of humanitarian aid. Starting in 1864 with the establishment of the Red Cross and the adoption of the initial version of the First Geneva Convention. Following two world wars and the creation of the United Nations, the international community has signed the four Geneva Conventions setting the principles for humanitarian assistance in times of war.

However, the work of the international community in taking advantage of the technological breakthroughs has been so little in comparison to the debate over their use in military projects; more specifically there have been numerous UN resolutions addressing armed UAVs but only few referring to their use in humanitarian missions.

As mentioned above there have been numerous situations where drones were utilized for a non-military purpose. The IOM uses drones in Haiti for the evaluation of the damage caused by natural disasters, while drones have been used in Vanuatu and Ecuador for the same purpose. Furthermore, the utilization of civil drones as part of the emergency response mechanisms of the Great Manchester Fire and Rescue Service proves that drones can be used under a clear and efficient legislation in daily emergencies. Last, their use during the conflict in the DR Congo proves that drones can be easily functional for humanitarian aid and observation in war-torn areas, while mapping in post crises' situations e.g. in Nepal or in Tanzania can be improved with their utilization.

Possible Solutions

Having analyzed the topic on all its aspects it is now the responsibility of the delegates of the Social, Humanitarian and Cultural Committee to debate and find reasonable solutions, reach a consensus and propose ways to solve the issue.

First of all, it is of utmost importance to address the root causes of the issue and tackle it on its basis. Therefore, it is very important that negotiations between

the Member States take place in order for a legal framework to be created and in order for the law systems to get innovated and include laws concerning the use of drones. This way the privacy issue mentioned above will be solved and it will be clear, in which cases drones will be able to get legally used.

As far as the humanitarian aid is concerned, drones should be created so that



they can cover all the needs of the people and regions in danger. Therefore, it is very important that the research on their quality is continued so that drones can reach the highest level of quality possible. For example, drones will have to be able to create an independent mesh network in order to transfer information to places with no telecommunication

infrastructure. Moreover, they should be updated so that they will have the ability to transfer the needed aid to the endangered regions or even transfer injured people to nearby health centers.

Raising public awareness and the improvement of the education system of countries is also very important in order for the civilians to be informed about the pros and the cons of drones and about the way they can be useful in times of fear and danger. This way everyone will be informed about the updates concerning the issue and learn how to deal with the existence of such vehicles in their everyday life.

Last but not least, it is worth to mention that the cooperation between states is a very important factor without which no hurdle can be overcome and nothing can be achieved in combating the obstacles the world is confronted with and especially when it comes to conflicts and natural disasters.

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