

# The Urgency of Government Regulations in Substitute of Law About the Drone Usage Regulation

Yuwono Prianto<sup>1\*</sup> Paksi Yudha Sasmita<sup>2</sup> Agata A. Mourin<sup>3</sup>

<sup>1</sup>Associate Professor in Law Faculty, Universitas Tarumanagara, Indonesia

<sup>2</sup>Department of Nuclear and Engineering Physics (graduate) Universitas Gadjah Mada, Indonesia, email: paksi.yudha.s@mail.ugm.ac.id

<sup>3</sup>Law Faculty (graduate), Universitas Tarumanagara, Indonesia. email: Agatamourin17@gmail.com

\*Corresponding author. Email: yuwonoprianto@gmail.com

## ABSTRACT

The development of drones, makes it very easy to obtain and important because it can be used for a variety of purposes ranging from positive to negative things. However, Indonesia constitution are not sufficient to overcome the problems that is caused by drone. Seeing the numerous problems that have occurred, it is possible to abuse the drone usage because it is not clearly regulated in Indonesian law which can lead to bigger problems in the future. Therefore, the need for higher regulations to regulate and overcome those problems which are caused by drones. Substitute of Government Regulations is one way to regulate the use of drones more specifically for protection and mutual interests.

**Keywords:** *drone, urgency, Government Regulation*

## 1. INTRODUCTION

Most of inventions in technology sector, mainly are developed by Military Organization for intelligence purpose and weapon development. It makes various regulations are applied from the scale of national to international. For instance, during 1910, the Germany's air balloon crossed the north territory of France and it was judged as a threat for the national security. Subsequently based on the event, several nations initiated Paris agreement by 1919 based on adage "*Cuius est solum, eius usque ad coelum et ad inferos*", which means a country exercises their rights until a level where it still has effective control for its air territory [1].

From air balloon, airplane, space shuttle, till drone, recently have been used by various groups, including military, scientist, and journalist. The latest drone development uses *artificial intelligence* algorithm as a solution to make drone choosing its own decision without human operator interference. The usage of drone has brought numerous benefits to society, however at the same time, it is also used for many destructive purposes, like ballistic or dangerous chemical material carrier. The problems are not only about safety and security aspects as regulated in article 210 and article 421 section 2, 2009 Constitution number 1 about Flight which revised 1992 Constitution number 115 about Flight, but also drone can be misused for illegal things, like terrorism, human privacy, and any other problems.

The regulations about drone are still limited on positive law in Indonesia, hence it gives chances for the occurrence of various crucial law problems from various groups. Meanwhile, based on 2016 Minister Regulation number 47

about Unmanned Aircraft Control in Airspace which is served by Indonesia is yet inadequate in overcoming various problems.

## 2. DEVELOPMENT OF DRONE

### 2.1 Drone and Its Development in Society

Technological developments at this time have been grown rapidly. One of them is an unmanned aircraft which is usually called "drones" or Unmanned Aerial Vehicle (UAV). Drone as unmanned aircraft is controlled with remote control by human operator or able to control itself with an algorithm that has been set by human using the law of aerodynamics. Drone is able to carry various loads, such as surveillance cameras, weapons, and more [2]. Air drones can be divided into two types based on their shape, they are Fixed Wing like airplanes and Rotary Wing like helicopters.

At the beginning, this unmanned aircraft was used by foreign military for spying purposes by the North Atlantic Treaty Organizations (NATO). Starting from military weapons, the use of drones is now starting to spread to various sectors, such as for photography, agriculture, and disaster assistance. In photography sector, a drone is generally equipped with a camera that is able to take pictures of the object being aimed at. In agriculture sector, drones can be used to analyze plant diseases by taking pictures of farms and spraying pesticides on agricultural land [3]. In the disaster sector, drones help in mapping the location of post-disaster events, such as those which are

being developed by BNPB Indonesia (National Disaster Management Agency) [4].

Unfortunately, the fast growth from the technological aspect is not offset with the regulations from the law to prevent negative consequences. This gap creates opportunity for crime [5] such as the misuse in military sector by United States who attacked Pakistan by using Drone Missiles. It made plenty of civilians were killed during the event. Drone also was used by ISIS terrorists to attack Syria and there are still many other negative effects due to the abuse of drone.

The Journalist Bureau of Investigation, in early 2014 issued a report that the use of drones under the Obama administration in the United States had killed at least 2,400 people, where 416- 951 of them were estimated as civilians, including children and women. At that time, there were many criticisms from human rights activists and Human Rights Observer Institutions. Amnesty International also said that these actions were already outside the path of law and human rights [5]. Remote-controlled weapons are very troubling for the international community because plethora of disaster events were caused by drones and the lack of legal provisions for governing the use of drone more concretely.

The huge of the potential use of drones in various sectors is inseparable from the negative impacts that can be caused from improper use. Remote drone operations make the safety of drones very vulnerable to attack and misuse, such as reconnaissance and piracy of drones by third parties by taking control of drones from real operators. In addition, inaccurate drone settings can endanger public safety, such as drones that explode in the air due to faulty power supply systems, drones falling due to loss of signal from the ground control, or drones that fly too high, hence interfering the commercial airline flights [6].

The outbreak of the Covid-19 Pandemic since early 2020 in various parts of the world, emphasizes the urgency of drones as a means of unmanned air transportation at a minimum height that is relatively safe from Covid-19 exposure which at a certain scale will significantly influence even the conventional shift role of goods transportation equipment. Although in some cases conventional transportation also has several advantages compared to using drones such as carrying capacity and so on.

If at a certain time, a DC electric power source can be developed to have the ability to recharge its battery while the drone is flying without having to go down to be recharge manually. The use of certain metallurgy techniques by combining several metal elements so that the drone can operate relatively continuously, at least within a period of time long enough so that operational costs become cheaper / efficient, then the use of drones as a means of unmanned air transportation will become more massive because it is much in demand by the public, especially among goods transportation entrepreneurs.

Likewise, with the needs related to law enforcement efforts, drones can be utilized to assist the police in pursuing suspected crimes. For the military, drones have often been used to monitor the possibility of potential

threats or disruption to the defence and security of a country's territory and can even be used to infiltrate other countries that are considered less or unfriendly, in order to determine a country's military capabilities and various weaknesses.

Drones can not only function in the air, but also above the surface and below the surface of the water so that their use is so wide that many alternative interests can be realized, for example in agriculture and the environment. Based on these considerations, the Indonesian government made the drone part of the National Strategy 2020-2024 project by removing the R80 and N245 aircraft development project [7].

One thing that needs to be observed is that of the many benefits that can be reaped, the use of drones can also be shifted to the dark side with which the rights of community members in the sense of personal or combination can also be avoided. In fact, threatening the safety of many people if the drone is used for things outside the purpose of living together with humans in the use of using it more specifically for the benefit of individuals, groups, or certain groups in accordance with technology-related products freely, both good and bad according to the way / how the drone is used.

## *2.2 Drone Regulation*

Technically, the drone regulation has been set through the Minister of Transportation Regulation of the Indonesia Republic Number PM 163 of 2015 concerning Civil Aviation Safety Regulations section 107, concerning Small Airless Flight System, Number PM 180 of 2015 concerning Control of Unmanned Aircraft in Airspace which is served by Indonesia, Number PM 47 of 2016 concerning Amendment to Regulation of the Minister of Transportation Number PM 180 of 2015, and Regulation of the Director General of Air Transportation Number KP 623 of 2015 about the Procedure and Mechanism for Imposing Administrative Sanctions on Violations of Laws and Regulations in the field of Aviation. Various regulations are all made to maintain flight safety. Meanwhile, in Law Number 1 of 2009 concerning Aviation had not detail drone regulations, but only regulated in the Minister of Regulation and Regulation of the Director General of Air Transportation [8].

In several laws and regulations, they mention a little about the drone regulations, such as Indonesia Republic Constitution Number 36 of 1999 concerning Telecommunications and Law on Copyright Number 28 of 2014. The Indonesia Constitution Number 36 regulated the use of spectrum radio frequency and satellite orbit must obtain government permission and its use must be in accordance with its goals and not interfere with each other. This was further regulated in the Minister of Communication and Information of the Republic of Indonesia Regulation Number 4 of 2015 concerning

Operational Provisions and Procedures for Licensing the Use of Radio Frequency Spectrum. Minister of Communication and Information of the Republic of Indonesia Regulation Number 4 of 2015 regulates that every use of the radio frequency spectrum has to be under permission to the spectrum. The permission to use this radio frequency spectrum must be in accordance with the radio frequency spectrum goals and not interfere with each other [9], while the Copyright Law Article 12 Paragraph (1) states that: (1) Everyone is prohibited using commercially, duplicating, announcing, distributing, and / or communication of portraits made for the purpose of billboards or advertising without the written consent of the person being photographed or his heirs. The article aims to protect the privacy of people but only in the case of taking pictures of other people without the person's permission [10].

In the Chicago Convention in 1944, there were several legal aspects related to the operation of drones, namely the sovereignty aspects of the state in the airspace and aspects of state responsibility coming from the operation of drones. Second, the sovereignty aspect of the country in the airspace has also given consequences of the authority of each country to establish prohibited areas and restricted areas for aircraft flights. In addition to the Chicago Convention of 1944, Part 107 of the Federal Aviation Regulations also became an aspect of international law in the operation of unmanned aircraft. In addition, the law imposes information retention, information disclosure, registration, and reporting requirements [11].

Regulations related to the drone have not yet reached and explained how the legality status of the use of the drone itself, the types of drones used for civil and military purposes, nationality and registration mark, airworthiness, operation (aircraft operation), aerodrome (airfield), air navigation, licensing (pilot's permission), hence that further rules are needed regarding the use of drones, limits, abuse sanctions if causing casualties due to the drone in the scope of national and international [12].

### *2.3 The Needs of Constitution About Drone Usage*

In Indonesia law, protection of aviation safety is well regulated, but seeing the development of the use of drones in the international world is growing significantly because of the many abuses committed by the community in the international world does not deny that this will not happen in Indonesia. The drone regulations in our current national law have not been regulated as a whole regarding its protection to the wider community, even though seeing the above problems has a lot of negative impacts caused by drones.

In addition, now drones are also easily owned by numerous people with affordable prices. Regarding the problems which are caused by drones, due to the minimal and non-existent regulation, it is deemed urgent to make a higher regulation at the level of the constitution. However,

the regulation of the use of drones in the law requires a long time because special discussions in the Parliament are needed to be conducted after previously taking the stages of study or research and preparation of academic texts. Meanwhile, the potential threats, disturbances in security and public order have not been anticipated progressively and comprehensively.

Before everything becomes massive, the enactment of Government Regulation in Substitute of Constitution about the use of drones is a smart move corresponding with the demands of the development of situations with the current situation and conditions related to the adoption of drone technology as well as the development of drones. Therefore, the Rear Admiral of Indonesian National Armed Forces (TNI) Dr. A. Octavian at the Forum Group Discussion (FGD) *Using Underwater Drones and Rides* from the Legal and Operational aspects of Wisma Elang Laut, Naval Headquarters Legal Development Agency on 23 May 2018 ago, stated that autonomous vehicles need to be responded specifically. Taking decisions with the machine needs to be responded specifically. The decision making with the machine needs to be considered further considering that it can be a backfire. The signal needs to be elaborated in a comprehensive way through the enactment of the Government Regulation on the use of drones.

## **3. CONCLUSION**

Law provisions related to the use of drones are spread in various constitutions, such as flight constitution, telecommunication constitution, and copyright constitution in the Minister of Transportation regulations. However, all of the constitutions are short, whilst the threat of security and orderliness can happen seriously. On the other hand, numerous of drones are sold freely, hence it is deemed necessary to regulate the use of drones comprehensively in the constitution, which is very urgent considering that constitution legitimation takes a long time.

## **4. RECOMMENDATION**

It is necessary to immediately form a constitution drafting team to make drone regulation by involving elements of higher education from various disciplines, military, police and related ministers.

## **REFERENCES**

- [1] Mieke Komar Kantaatmadja. 1984. Berbagai masalah Hukum Udara dan Angkasa.
- [2] Alvan Neira Putra, Jakarta. 2016. Kebijakan Penggunaan Drone Amerika Serikat Terhadap Pelanggaran Hukum Internasional.

- [3] Moh Khory Alfarizi. 2018. "Drone untuk Pertanian dengan Sistem Penyemprotan". Available at: <https://tekno.tempo.co/read/1104471/dji-agras-mg-1s-drone-untuk-pertanian-dengan-sistem-penyemprotan/full&view=ok>
- [4] BNPB. 2016. "BNPB Inisiasi Kerjasama Pemanfaatan UAV/Drone di Bidang Penanggulangan Bencana". Available at: <https://www.bnpb.go.id/bnpb-inisiasi-kerjasama-pemanfaatan-uav-drone-di-bidang-penanggulangan-bencana>
- [5] Arman Surya Nicolas Marbun, et all. 2015. Analisa yuridis penggunaan pesawat tanpa awak sebagai alat utama persenjataan ditinjau dari hukum internasional (Studi kasus penggunaan drone oleh Amerika Serikat di Pakistan), Universitas Diponegoro. Available at: <https://media.neliti.com/media/publications/69483-ID-none.pdf>
- [6] CNN Indonesia. 2014. Available at : <https://www.cnnindonesia.com/internasional/20141030112945-134-8859/penggunaan-drone-yang-mengundang-kontroversi>
- [7] Bisnis Tempo. 2020. Available at : <https://bisnis.tempo.co/read/1347825/proyek-strategis-nasional-pesawat-r80-dan-n245-diganti-drone>
- [8] Dhani Irawan. 2018. "Drone Meledak Saat Acara Militer yang Dihadiri Presiden Venezuela". Available at : <https://news.detik.com/internasional/4150562/drone-meledak-saat-acara-militer-yang-dihadiri-presiden-venezuela>
- [9] LAPAN Focus Group Discussion (FGD). 2018. Penggunaan Drone dan Wahana Bawah Air dari Aspek Hukum dan Operasi.
- [10] Telecommunication Constitution of Republic of Indonesia Number 36 Article 2 of 1999.
- [11] Copyright Constitution of Republic of Indonesia Number 36 Article 2 of 2014. Available at: <http://jogjasky.com/ketentuan-hukum-penggunaan-drone-indonesia/>