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## Legal regulation of unmanned aerial vehicles application in the surveillance of the state border of Ukraine

### Правове регулювання використання безпілотних літальних апаратів в охороні державного кордону України

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#### Abstract

The goal of the article is to develop proposals for the improvement of the existing normative legal documents regulating UAVs application in the surveillance of the state border of Ukraine.

The research methods have been selected based on the goal and tasks of the research. A complex of general scientific and special-scientific methods has been used in the process of the research. In particular, the use of comparative and formal-logical methods made it possible to investigate the evolution of legal regulation of UAVs application by the law enforcement agencies and military formations in Ukraine. The logical and legal method has been used for the development, argumentation and determination of the directions of improving the legal regulation of UAVs application in the process of the state border surveillance.

#### Анотація

Метою статті є розробка пропозицій щодо вдосконалення існуючих нормативно-правових документів, що регулюють застосування БПЛА при спостереженні за державним кордоном України. Методи дослідження були обрані виходячи з мети та завдань дослідження. В процесі дослідження використано комплекс загальнонаукових та спеціально-наукових методів. Зокрема, використання порівняльних та формально-логічних методів дозволило дослідити еволюцію правового регулювання застосування БПЛА правоохоронними органами та військовими формуваннями в Україні та зарубіжних країнах. Логіко-правовий метод використаний для розробки, аргументації та визначення напрямків вдосконалення правового регулювання застосування БПЛА в процесі спостереження

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The article reveals the proposals for the improvement of the existing normative legal documents regulating unmanned aerial vehicles (UAVs) application in the surveillance of the state border of Ukraine. It is concluded that UAVs application is effective in the surveillance of the state border of Ukraine, since information obtained with the help of these aerial vehicles allows to effectively and rapidly establish facts of the state border violation and detain its violators.

**Key words:** unmanned aerial vehicles application, proposals for the improvement, legal regulations, surveillance of the state border of Ukraine.

### Introduction

The development of scientific technologies, information provision and the change of the doctrine of national security promotes the introduction of sophisticated monitoring and combat capabilities in the activities of military formations and law enforcement agencies. The State Border Guard Service of Ukraine (hereinafter referred to as SBGSU) uses various technical equipment for the state border surveillance, the ranking place of which is also occupied by unmanned aerial vehicles (hereinafter referred to as UAVs). UAVs belong to the class of unmanned aviation, that is, these are aerial vehicles the flight control of which is carried out in hands-off mode, using radar systems.

The main sphere of UAVs application at the initial stage of their implementation was occupied by the military and defense sector, but the spectrum of their use has considerably expanded with the development of scientific progress. Legal and regulatory framework of UAVs application in regard to the surveillance of the state border of Ukraine becomes a topic of interest from the perspective of the threats to state security on the part of both terrorist organizations and cross-border crime.

The goal of the article is to develop proposals for the improvement of the existing normative legal documents regulating UAVs application in the surveillance of the state border of Ukraine.

The following tasks have been defined to achieve this goal:

за державним кордоном. У статті розкриваються пропозиції щодо вдосконалення існуючих нормативно-правових документів, що регулюють застосування безпілотних літальних апаратів (БПЛА) під час спостереження за державним кордоном України. Зроблено висновок, що застосування БПЛА є ефективним для охорони державного кордону України, оскільки інформація, отримана за допомогою цих літальних апаратів, дозволяє ефективно та швидко встановлювати факти порушення державного кордону та затримувати його порушників.

**Ключові слова:** застосування безпілотних літальних апаратів, пропозиції щодо вдосконалення, правове регулювання, охорона державного кордону України.

1. To analyze the state of legal regulation of UAVs application to ensure national security, defense of the state and protection of the population.
2. To study the positive experience of UAVs application in the process of border surveillance in foreign countries (first of all in the countries that are members of the North Atlantic Alliance).
3. To propose amendments to the legislation of Ukraine with the aim of proper standardization of UAVs application for the state border surveillance on the grounds of the experience analyzed.

### Review of literature or research background

Problems of UAVs application are vigorously studied in both national and foreign literature. For example, the scientists (Babii & Polishchuk, 2017) carried out the classification and prospects for the development of technical means of border protection and surveillance including UAVs. Other researchers have studied the methodology of preparation and conduct of field tests of unmanned aerial vehicles for state border surveillance (Balytskyi, Lysyi & Polishchuk, 2015).

Balytskyi, Lysyi, Babii, Polishchuk, 2017 assessed the possibility of the violator search using an unmanned aerial vehicle in the search mode on an on-call basis.

The countries of the European Union apply UAVs in the area of the English Channel and along the Mediterranean Sea coastline. They also use UAVs to guard borders in the area of the

Balkan Peninsula. UAVs application is a part of the European Union's plans in order to equip customs and border agencies with sophisticated surveillance systems, and 1.6 thousand million of US dollars was allocated to this program. The primary purpose of UAVs application is to prevent illegal migration, smuggling and terrorist acts (Erokhin, 2018).

Today, UAVs are widely used to protect the state border in NATO countries (Hlotov, Hunina & Teleshchuk, 2017, p. 142). For example, US agents of the Department of Homeland Security highly appreciated the effectiveness of UAVs application by virtue of which they detected 22 000 pounds of marijuana and 5 000 illegal migrants (Archibold, 2009). UAVs application in the US is becoming more intense. Such unmanned vehicles play an increasingly important role in modern military strategies. They are extensively used to accomplish border patrol and security missions in different parts of the country. Border control officers of Texas were among the first who began to apply UAVs to monitor US borders. As Henry Cuellar notes: "These aircraft are a force multiplier for our border law enforcement and they have the endurance and flexibility required to patrol our border while collecting critical information that will protect our communities" (Cuellar, 2010). The possible range of UAVs application is a significant advantage over border patrols. For example, UAVs will have a greater chance of tracking the violator by means of heat detectors when he attempts to cross the border illegally through timber or mountainous areas. That is, the wide range of operation and the ruggedness of UAVs can reduce the burden on human resources (Haddal & Gertler, 2010, c. 3).

At the same time, some agents oppose UAVs application in the US borders surveillance. So, T. J. Bonner, the president of the Border Patrol union noted that "Unmanned aircraft serve a very useful role in military combat situations, but are not economical or efficient in civilian law enforcement applications" (Archibold, 2009). There is a debate about the observance of human rights and freedoms in the use of UAVs during anti-terrorist activities in Afghanistan, Pakistan and on the Arabian Peninsula (Schaller, 2015), (Basu & Kurlekar, 2015).

NATO member countries are actively using UAVs to deliver force in the context of military operations. Drones are used by the United Kingdom, the United States, Israel and the North Atlantic Treaty Organization in operations in

Afghanistan, Pakistan, Yemen, Libya, Iraq, Somalia, Gaza and Syria). (Heyns, Akande, Hill-Cawthorne and Chengeta, 2016).

The development of technology is always ahead of the development of legal regulation (Nugraha, Jeyakodi, Mahem, 2016) and Ukraine, being not exempted from the indicated rule, has begun to use the technology of UAVs rather quickly in recent years, while the legal framework that regulates their application still requires improvement. The work by Kuzmenko (Kuzmenko, 2016) is devoted to the problems of legal regulation of UAVs application in law enforcement activities of the National Police of Ukraine. Therefore, as it can be seen from the literature review, the problems of UAVs application both in border surveillance and in the military and law enforcement spheres are actively studied in special literature.

### Research methods

The research methods are selected taking into account the goal and tasks. A set of general scientific and special scientific methods was used in the process of writing the article. In particular, the application of comparative and formal-logical methods made it possible to research the evolution of legal regulation of UAVs application by law enforcement agencies and military formations in Ukraine and other countries. The analysis of this experience provided for a new level of understanding on the capabilities of UAVs in the surveillance of the state border. The comparative method allowed revealing differences in the legal regulation of UAVs application in foreign countries and Ukraine. The logical and legal method was used to develop, argue and determine areas for improving the legal regulation of UAVs application in the surveillance of the state border. The comparative and legal method was engaged in an attempt to compare the features of UAVs application by units of the National Police of Ukraine and units of the State Border Guard Service of Ukraine, as well as to make suggestions for improving departmental regulations on these issues. In addition, the method of statistical observation was used, which made it possible to collect and evaluate primary statistical data on UAVs application in the surveillance of the state border of Ukraine. The use of the analytical method helped to identify shortcomings in the legal regulation of UAVs application in the surveillance of the state border of Ukraine.

**Results and Discussion**

The Concept for the SBGSU development for the period up to 2015, approved by the Decree of the President of Ukraine of October 30, 2008 (Decree № 971, 2008) actually implemented as of 2015, was one of the first normative legal acts among the main development measures undertaken by the SBGSU that established the creation of an efficient logistics system through the acquisition of new types of aviation equipment with sophisticated optical, radar and thermal imaging facilities, including *unmanned aerial vehicles*. Subsequently, the Government approved the Strategy for the SBGSU development which envisaged the introduction of unmanned aerial systems for the state border surveillance in order to unify and technically re-equip the bodies and units of the SBGSU with

up-to-date models of weapons, military equipment, surveillance and control systems. The specified document defines a list of indicators, the projected values of which are to be achieved by the Strategy. In particular, the acquisition of 126 UAVs was planned by 2017, and 194 items were to be supplied by 2020.

According to the SBGSU, as of December 2018, the agency has 12 unmanned aviation complexes (including 54 UAVs). As of December 2020, 129 UAVs are already used by the SBGSU. At the same time, the growth of the specific value concerning the number of such aerial vehicles is observed in comparison with the previous years (Table 1). In the long run, it is planned to provide the agency with 200 UAVs; Table 1 reveals the calculation of the specific value of their number in the SBGSU by years.

**Table 1.**  
*The number of UAVs in the SBGSU by years.*

Year	2015	2016	2017	2018	2019	2020
number	8	17	25	54	73	129

The number of cases of UAVs application for the state border surveillance of Ukraine also significantly increases (Table 2). This is due to

the significant value of information obtained with the help of UAVs for violators' detention (Table 3).

**Table 2.**  
*The number of cases of UAVs application for the surveillance of the state border of Ukraine.*

Year	2015	2016	2017	2018	2019	2020
average number per month	28	63	91	189	212	519

**Table 3.**  
*The number of violators' detentions according to the information obtained with the help of UAVs.*

Year	2015	2016	2017	2018	2019	2020
Total number of violators detained at the state border	54507	73242	98427	77108	51 355	33465

The main directions of activities and further development of the SBGSU in 2015 included the creation of specialized units for conducting (countering) air reconnaissance with the use of unmanned aerial vehicles. In addition, it was envisaged to work out and establish a legal and regulatory framework for UAVs application in the surveillance of the state border and to continue the study of samples of unmanned aerial vehicles complexes promising for the state

border surveillance. The main tasks also included the improvement of the system of air monitoring of the state border, the exclusive (marine) economic zone and the territorial sea specifically through the implementation of UAVs.

Despite such progressive ideas and their implementation concerning the development of the SBGSU it should be noted that there is not enough legal regulation of UAVs application in

the service and operational activities of the SBGSU. First of all, the Law of Ukraine "On the State Border Guard Service" (Law № 661-IV, 2003) does not make provision for the right of the SBGSU to use UAVs. From there, Article 20 of the Law of Ukraine "On the State Border Guard Service" confers the SBGSU the right, in accordance with the procedure established by the legislation, to carry out flights using the SBGSU aircraft on air routes, off-route directions, as well as on established routes within the border zone, controlled border areas and the exclusive (marine) economic zone of Ukraine. There are no references as to UAVs in the aforementioned law, nevertheless the information obtained during the process of the state border areas monitoring is important in the operational and search activities, criminal and administrative proceedings.

It should be noted that there is no legislative regulation of UAVs application and visual surveillance of the operational service not only in the activities of the SBGSU but in the activities of criminal police units as a whole. In particular, O. K. Khirnyi (2015) indicates the gap in the legislation. However, the scientist emphasizes the need to develop a legal mechanism for the administrative implementation of UAVs application, not paying attention to the aspect of the use of information obtained in the process of UAVs application as evidence of the violations, etc. UAVs application in the state border surveillance is considered in separate scientific publications and solely from the point of view of UAVs military or technical capabilities (Balytskyi, Lysyi & Polishchuk, 2015).

Similar considerations are expressed by Ye. V. Kuzmenko, who noted, "... at the present point in time, the issue of UAVs application in the process of law enforcement activities remains unresolved in the context of law. First of all, this relates to the registration, certification of such unmanned aerial vehicles, and the granting of permits for their flights. The access of persons to ensure UAVs flight also requires a legal settlement of the procedure" (Kuzmenko, 2016, p. 87). Considering that, we agree with the viewpoint of Yu. V. Lesko and admit that UAVs are a source of increased danger (Lesko, 2017, p. 7), which can harm both the life and health of a person and his property. Accordingly, the operator has to master specific knowledge and skills to control such vehicles.

The Air Code of Ukraine (hereinafter referred to as ACU) is the basic normative legal act regulating the use of aircraft in Ukraine. ACU

defines the basic terms used in the Code, including such terms as "unmanned aerial vehicle", "management of airspace of Ukraine", "state aviation", "state aircraft", "aerial vehicle", "aircraft", "airspace of Ukraine", etc.

In accordance with clause 23 of Article 1 of ACU an unmanned aerial vehicle is an aerial vehicle designed to perform a flight without a pilot on board, the flight watch of which is controlled by a special control station located outside the aerial vehicle. That is, the determining feature of such a vehicle is the absence of a pilot on board, and its control is carried out by the ground facilities operator.

Unmanned Aerial Vehicle – UAV is used in Civil and State Aviation (Part 4 of Article 4 of ACU). UAVs used in civil aviation are designed for entertainment and sports activities (their maximum take-off weight does not exceed 20 kilograms), as well as those used for the carriage of goods (their maximum take-off weight exceeds 20 kilograms) (Part 8 of Article 39 of ACU). Quadro-copters owned by most families today are also worth mentioning. Such devices are toys, not vehicles, since they were created not for transportation, but for children and adults entertainment.

It should be noted that home-made "unmanned aerial vehicles" are the most common in Ukraine, and they are used, for example, for the purpose of illegal movement of goods across the state border of Ukraine. At the same time, it is difficult to find out the owner of such a "drone aircraft", since such an aerial vehicle operates with the assistance of a satellite *GPS* navigation system, that is, without human intervention into its control.

The state aviation applies UAVs for the purpose of ensuring the national security and defense of the state and the protection of the population reliant on the Armed Forces of Ukraine, other military formations created in accordance with the laws of Ukraine, the bodies of the National Police, the specially authorized central executive body on civil protection, the bodies of the State Border Guard Service of Ukraine, the bodies of incomes and charges. The maximum take-off weight of the aircraft used in military and other public interests may be from 2 and more kilograms.

Today, unmanned aerial vehicles are typically used in military aviation as an electronic device capable of performing reconnaissance operations and transmitting information through securely

encrypted digital channels. *Anser* unmanned aerial vehicle, which was presented during "Weapons and Security – 2016" international exhibition by SpetsTechnoEksport state-owned enterprise is among the latest national achievements in this sphere.

The Ministry of Defense of Ukraine (hereinafter referred to as MDU) is the authorized central executive body in the field of state aviation. The MDU regulates the issues of state aviation in terms of registration and admission of state aircraft and aerial vehicles, airfields and landing grounds, maintaining the serviceableness of state aircraft, authorization of aviation personnel to perform flights and carrying out flight maintenance, aerial vehicles guarding, execution and operation of flights, search and rescue, testing and acceptance of new types of aircraft intended for use in state aviation, and it also provides legal and regulatory framework of these issues in consultation with the concerned central executive bodies operating civil aircraft (On the State Border Guard Service).

Based on the above-mentioned provisions, we can state that UAVs application in the state border surveillance is carried out in coordination with the MDU. One of the important steps for the regulation of UAVs application in Ukraine is the draft Concept of the provisions and procedures for ensuring the safety of flights of general aviation, sports, amateur aircraft and UAVs (Draft Concept of the Regulations). However, the document is still a draft for today.

The Temporary Procedure for Airspace of Ukraine Use is an important normative legal act defining the requirements for the organization and arrangements for the use of airspace of Ukraine by ministries, other central executive authorities, enterprises, institutions and organizations, legal entities and individual persons i.e. users of airspace of Ukraine (the Temporary procedure for airspace of Ukraine use).

The Order of the Ministry of Defense of Ukraine No. 661 of December 08, 2016 which approved the rules for the carrying out of flights by unmanned aviation complexes of the State Aviation of Ukraine is an important step in the legal regulation of UAVs application (Order № 661, 2016). These Rules determine the procedure for organizing and conducting flights of unmanned aviation complexes of the State Aviation of Ukraine. They are obligatory in terms of guidance and execution by all subjects of aviation activities, as well as military units

(institutions) of central executive authorities, the Armed Forces of Ukraine and other military formations established in accordance with the laws of Ukraine, which include departments for unmanned aviation complexes use (Order № 661, 2016).

It should be noted that the Rules do not contain any norms that would regulate UAVs application for the surveillance of the state border and the line of separation in the area of the combined forces operation. The only reference to UAVs application in the activities of the SBGSU is the provision for imposing responsibility upon the commander of the external crew of the unmanned aviation complex (external pilot (operator) of the unmanned aviation complex – UAC) for timely and accurate performance of the flight task by the external crew, observing the established security measures and who is obliged to take decisions to change UAV route and flight mode, to conclude to cross the state border and (or) to settle to abort the flight and carry out UAV aerodrome landing not provided according to the operational flight plan, in cases of a threat to the life and health of members of the external crew, people on the ground and the integrity of the material objects on it, associated with acts of unlawful interference with the crew activities and the occurrence of special cases (situations) during the flight (in the process of UAV control) (Order № 661, 2016).

The Administration of the SBGSU drew up the Procedure for flights organization and servicing using unmanned aviation complexes of the SBGSU based on the above-mentioned Order (The Procedure of flights). The main task of UAC in the SBGSU is: to patrol the state border and controlled border areas, the territorial sea, E(M)EZ of Ukraine, the Ukrainian part of the waters of the Azov Sea, the temporarily uncontrolled section of the state border and the safety zone along the collision line from the air in order to identify any signs of activation of the armed forces of adjacent states, other military (terrorist) formations along the state border of Ukraine, prevention of the penetration of sabotage and reconnaissance groups into the territory of Ukraine, counteracting illegal movement of persons across the state border, illegal migration, as well as the illegal movement of weapons, means of terror, narcotic and psychotropic substances and precursors, ammunition, explosives, materials and objects prohibited for movement across the state border and other illegal activities (the Procedure of Flights).

Section V, "Processing, transmission and storage of data on the state border air monitoring" in this document regulates separate issues of using the results of monitoring of the state border. From there, the monitoring results are drawn up in the form of a report, which is accompanied by videos (10-15 seconds long) and photographic materials for each detected act (identified signs) of violations.

The flight report in print is registered and kept at the headquarters of the state border guard body along with the air task orders of UAC for the state border surveillance, images of flight tracks, other written and graphic documents, as evidence in cases of violators prosecution for administrative or criminal liability and they are destroyed in the established order, depending on the access restrictions granted to them.

The duration and procedure for the storage of video and photo materials of the state border monitoring results in electronic format are determined by the head of the state border surveillance body, and video and photo materials that can be used as evidence, or ones having disputable points (investigative actions are carried out) are kept until the completion of the proceedings (completion of actions) (the Procedure of flights).

However, the specified procedure does not contain provisions on UAVs airspace limits use. That is, what distance can UAVs be used from the state border line, what actions of operators are in case of forced crossing of the adjacent border, etc.?

It should be noted that similar questions arise in many states using UAVs in the public interest. So, in the United States, there are still questions concerning the use of information gathered in the process of UAVs application: is it possible to consider such information as evidence in court, for how long such information shall be preserved (Drones Take Off)?

Some international documents contain rules for UAVs application. The Convention on International Civil Aviation (Convention Doc 7300, 1944) is such a document. From there, Article 8 indicates the prohibition of flights of any unmanned vehicles over the territory of another state without its authorization. In addition, in accordance with this Convention, each Contracting state undertakes to insure that the flight of such aircraft without a pilot in regions open to civil aircraft shall be so controlled as to obviate danger to civil aircraft

(Convention on International Civil). Therefore, UAVs application by the authorities of the state border surveillance should be clearly regulated and not contradict the international law.

The Order of the Administration of the SBGSU of October 21, 2003, (Order № 200, 2003) is the main normative act regulating the use of weapons, military equipment, weapons of ships (cutters), aircraft and helicopters in the SBGSU. This document also does not specify the procedure for UAVs application in the surveillance of the state border and the exclusive (marine) economic zone of Ukraine.

Taking into account the fact that according to the forecasts of the Centre for the development of solutions with UAVs application (Clarity from above) in the future, the information (data) collected by UAVs will be used by way of object recognition. In addition, UAVs will probably have the opportunity to identify the violator where legal and regulatory framework becomes very relevant. Indeed, in the future, this may violate human rights as emphasized in the publications by Alessia Vacca and Hiroko Onishi. They noted that one of the aspects of UAVs abuse is the fact that personal information can be collected by state authorities without the consent of the owners (Vacca, Onishi, & Cucco, 2017, p. 56; p. 62). The active application of UAVs, which are designed to use weapons, is also a contradiction (Lachow, 2017), (Rushby, 2017), (Laufer, 2017). Thus, the inadequate legal regulation of UAVs application in the state border surveillance may lead to the fact that the data obtained as a result of monitoring flights will not be used in court due to the lack of proper legal grounds for their use or will be used in contravention of the norms of civil law and the right to privacy (Herrera, 2018).

## Conclusion

Based on the foregoing, one can draw the following conclusions:

- 1) UAVs application is effective in the surveillance of the state border of Ukraine, since information obtained with the help of these aerial vehicles allows to effectively and rapidly establish facts of the state border violation and detain its violators (see Table 3);
- 2) the activities of the SBGSU, aimed at increasing the number of UAVs in the agency (Table 1), which allows to increase the amount of their application in the

- surveillance of the state border of Ukraine (Table 2) is to be recognized as proper one;
- 3) the available number of UAVs in the agency (Table 1), in particular on the western and southern borders, where they began to be applied as a rule only in 2017 is not sufficient enough to provide more effective surveillance of the state border of Ukraine at present;
  - 4) the legal regulation of the relations related to UAVs application in the surveillance of the state border of Ukraine, which generates a number of problematic issues, in particular concerning the realization of the rights, freedoms and interests of citizens of Ukraine, stateless persons and foreign citizens is imperfect. In connection with the existing gaps in the legislation, we have developed a number of provisions for the legal regulation of UAVs application in the state border surveillance;
  - 5) It is necessary to use UAVs more effectively in the surveillance of the state border of Ukraine, in terms of combating illegal migration, which certainly becomes threatening, as confirmed in the publications by Kuryliuk, & Khalymon, 2020.
1. In order to provide the proper use of the flight monitoring results we consider it necessary to supplement Article 20 of the Law of Ukraine "On the State Border Guard Service of Ukraine", Clause 48 with the following text: "to carry out automatic photo and video recording by means of unmanned aerial vehicles and use the information received from them to prevent, detect or register violations at the state border of Ukraine, entry-exit check points, as well as within controlled border areas and the exclusive (marine) economic zone of Ukraine".
  2. Information obtained during UAVs application in the surveillance of the state border of Ukraine, at the entry-exit check points, as well as within controlled border areas and the exclusive (marine) economic zone of Ukraine shall be considered an official document which can be used as evidence of the fact or circumstances, for substantiation in the process of criminal, administrative or civil proceedings (Article 84 of the Criminal Procedure Code of Ukraine, Article 79 of the Code of Administrative Justice of Ukraine, Article 79 of the Civil Procedural Code of Ukraine).

The information recorded by such UAVs is evidence provided that it meets the requirements

for admissibility: a) it contains information on the actual circumstances relevant for criminal, administrative and civil proceedings; b) the availability of data concerning the official obtaining of such information by the units of the SBGSU.

3. Carrying out flights monitoring and obtaining information when applying UAVs in the state border surveillance shall be considered a legitimate action of the SBGSU, which does not violate the rights and interests of the population of Ukraine, if they were performed over settlements located in the border zone, subject to the conditions of flight. These conditions include, in particular, the altitude of the flight above the ground which shall be greater than 50 meters. Compliance with such flight altitude will not violate the rights and interests of the population associated with their property and personal non-property benefits. In this way, their right to privacy will not be violated.
4. Modern UAVs allow obtaining information about different objects at a considerable distance, depending on their class. Thus, the first class includes UAVs with the line-of-sight coverage, such as: "micro" – up to 5 km, "mini" – more than 5 km, "small" – more than 25 km. The second class includes tactical UAVs with the line-of-sight coverage of more than 50 km. The third class of UAVs include the vehicles the line-of-sight coverage of which is more than 200 km. This classification is used in Ukraine and in member states of NATO. It is enshrined in Annex 1 of the Rules for the conduct of flights by unmanned aviation complexes of the State Aviation of Ukraine.

Application of UAVs of different classes in the state border surveillance will violate the rights and interests of the neighboring states of Ukraine. In this regard, it is necessary to enshrine a separate norm on UAVs in the Law of Ukraine "On the State Border Guard Service of Ukraine", indicating their ranking into certain classes that can be used in the state border surveillance, as well as the distance to the state border line to be covered by them. We consider it expedient to apply class I UAVs of micro and mini category by the units of the SBGSU in the interests of the surveillance of the state border of Ukraine and ensuring the rights and interests of neighboring states. Such UAVs can approach the state border line without its crossing.

5. UAVs refer to vehicles that are the sources of increased danger, because they are characterized by the impossibility of full control on the part of the person concerning manifestation of material objects harmful properties; they are determined by the increased probability of causing damage; their specific feature can be revealed in the possibility to damage accidentally.

In cases of damage by such a vehicle, the issue of its reimbursement in Ukraine is solved according to the rules of Articles 1187 and 1188 of the Civil Code of Ukraine. So, if the UAV caused damage to the third parties, for example due to its accident or emergency landing, etc., it is compensated according to the following rules: a) regardless of the fault of its owner, in particular the ground operator; b) the debtor is the owner of the UAV, i.e. the state represented by the SBGSU; c) the intent of the victim is the grounds for exoneration of obligor to compensate for damage. We believe that force majeure can not be a ground for the exoneration of obligor to compensate for damage. This idea is due to the feature of air flights, which are not devoid of randomness that can be both foreseen and unforeseen, but it is impossible to prevent a harmful consequence (for example, the appearance of birds, another vehicle, etc.).

There are cases of UAVs collision with other aerial vehicles. As a result of such a case, the damage may be caused to the owners of the vehicles themselves. The peculiarity of compensation for such damage is as follows: a) the damage is compensated on the basis of guilt; b) the amount of compensation for damage depends on the form and degree of guilt of the owners of vehicles, in particular the ground operator; c) the lack of guilt of the owners of vehicles exempts them from the obligation to compensate for damage; d) the debtor is the owner of such a vehicle; e) the grounds for discharging from the obligation to compensate for damage are the case, force majeure, intent of the victim.

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