
COMPARISON OF SLOVAK AND POLISH UAV LEGAL FRAMEWORK

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Abstract

This paper is focused on the comparison of Slovak and Polish UAV legal framework. In the paper is detailed description of the Polish approach to application of UAV legal rules and explain the general principles implemented in Slovak national legal system. The paper points out the identical basic rules, which are based on the UAV European legal framework, as well as the changes that occurred after the application of "new" European UAV rules in the Slovak Republic in 2019.

Keywords

UAV, Drones, Legislation, National legislative Framework, Slovakia, Poland

1. Introduction

About ten years ago a lot of us couldn't even think about flying with unmanned aerial system (UAS) of which the unmanned aerial vehicle (UAV) commonly called drones, not about how easy it can be to have one. The prices were very high and only army was able to buy some for military purposes and research. Nowadays, after rapid development and technical progress it is not a problem to buy a drone and fly. Flying with drones is now not only for people, who are interested in civil aviation but for everyone. The price of „small drone“, which could be defined as a toy is not so high. It means that drones started to be a „good“ Christmas or birthday present for young boys. Thousands of people all over the world are having fun with these small flying objects every day. But they are not wary during their flights and very often have no knowledge of the real position of drones and the rules of its operation. They don't understand that these for them interesting toys are real aircraft and they have to accept the rules- standards and recommendations of International civil aviation organization (ICAO) focused on the UAV and especially rules of the Air. In civil aviation is safety the first so not only ICAO, but European Aviation Safety Agency and Eurocontrol are working on creation the rules, which could be flexible and reflect all positions of drones, so not only as a toy, but much more as the aircraft. Some kinds of drones can be operated also for aerial works or specific research (Pecho et al., 2019). In this paper we focused on the description of Polish UAV legislation and rules for UAV operation and try to compare it with Slovak UAV legal framework. The state authorities, whether civilian or military, have to find the most appropriate form of solution to create the national legislation that reflects the changes in European legislation after establishing the framework within 2018-2019. At the same time, it is necessary to respond to the ever-growing progress in the production of UAV technologies and their impact on air transport market. However, the most important is the safety of the UAV flights (Kurdel et al., 2019).

2. Polish UAV legal framework

Poland as the Member State of ICAO and EU has to respect their standards and recommendations. The Commission introduced a

complete regulatory framework enabling the further development of the European drone sector (Regulatory framework to accommodate unmanned aircraft systems in the European aviation system). The rules are based on an assessment of the risk of operation and strike a balance between the obligations of drone manufacturers and operators in terms of safety, respect for privacy, the environment, protection against noise and security. On March 12, 2019 the European Commission adopted common EU-wide rules setting technical requirements for drones. They will set features and capabilities that drones must have in order to be flown safely and, at the same time, help foster investment and innovation in this promising sector. The new EU rules build on national rules that were in place and now provide a harmonized framework across the European Union (Kurdel et al., 2019). In Poland all drone operators, regardless of the nature of the flight (eg commercial, recreational, sporting or other flights) are based on general UAV international and European legislation. However, flight rules may vary depending on whether licenced as UAVO (it is easier) or not (UAC) certificate. In addition, drones' operators in Poland are subject to additional regulations, which abolish the obligation to comply with certain laws and rules that apply to pilots, hang-gliders, paratroopers, etc. There can be a lot of possibilities, so Polish Government decided to make this regulation as easy as it can be. Later can be easier to find "new" drone operators. The most important reason was the age of the UAV potential operators or we can write drone pilots. The young people, the majority of them is not interested in studying of a lot of long articles written in a complicated language as normally the legal acts are. It is a lot more attractive for them to read short brochures which can give them as much information but in a simpler way. The Polish government made also an action called „Lataj z głową“ (Think while Flying). It is an information campaign which provides very accessible and straightforward basic information about the most important rules that should follow while flying a drone. Colourful photos and meaningful pictures catch eyes and give good advices for all drones' users.

Furthermore, there is a lot of special rules created by the Polish Government. These documents are more comprehensive but still use more informal language than legal language. They are

divided into “smaller” publications. If you need to find a particular information in a concrete part, you have to simply look at it. It is quicker when you only need to read an extract and not the whole publication. In general, are made to provide easier and more straightforward guidelines.

For example, in Poland is:

- “Acceptable Systems AMC”- about using airports (rules and fees included);
- Easily accessible rules for airports”- given by National Safety Aviation Bureau.

Those and some others mentioning about different sides of the complex issue of flying a drone are commonly used. They are written in less formal way in order to give easier access to basic information and useful tips. They are based on effective regulations but rewrite in order to make it less repulsive for ordinary people. But the polish government approved:

- Regulation of the Minister of Transport, Construction and Maritime Economy of March 26, 2013 on the exclusion of certain provisions of the Act - Aviation Act for certain types of aircraft and the specification of conditions and requirements for the operation (Journal of Laws of 2013, item. 440);
- Act of July 3, 2002, Aviation Law (Journal of Laws of 2013, item 1393);
- Act of 16 April 2004 on the protection of nature (Journal of Laws of 2013, item 627);
- Act of 23 April 1964 Civil Code (Journal of Laws of 2014, item 121);
- The Act of June 6, 1997, the Penal Code (Journal of Laws No. 88, item 553);
- The Act of February 4, 1994 on Copyright and Related Rights (Journal of Laws No. 90, item 631);
- Regulation of the Minister of Transport, Construction and Maritime Economy of 26 April 2013 on technical and operational regulations for aircraft of the special category, not covered by EASA (Journal of Laws of 2013, item 524);
- Regulation of the Minister of Infrastructure and Development of 22 January 2015 on air traffic regulations (Journal of Laws, item 141);
- Regulation of the Minister of Infrastructure of 11 June 2010 on prohibitions or flight restrictions for a period longer than 3 months (Journal of Laws of 16 June 2010);
- Regulation of the Minister of Infrastructure of November 25, 2008 on the structure of Polish airspace and the detailed conditions and manner of using this space (Journal of Laws of 2014, item 351);
- Regulation of the Minister of Transport, Construction and Maritime Economy of June 3, 2013 regarding qualification certificates (Journal of Laws of 2013, item 664).

Polish legal system is constantly being modernized to meet the rapidly changing needs of users. The newest upgrade came into effect in the January, 31 2019, in order to make flying drone even easier than before. The Ministry of Infrastructure upgraded some regulations and now, as an outcome, they have provided:

- more opportunities for sport and recreations purposes;
- easier access to qualifications certificates;
- more specify rules of flying out of sight;
- simplifying the examination rules (questions and practical tasks only on the most important fields);
- enabling automatic flights.

According to public opinion, the last part is the most important and has the biggest impact on the users. Flying with auto-mode is much safer, because of the GPS system and navigation system which are responsible for avoiding obstacles.

This part of Polish Air Law is the newest and the fastest grow of all. Of course, knowing all the theoretical rules is essential to use drones properly, but a lot of people is asking how does it work in practice? And what should they do to be able to fly one of those remote-controlled flying objects or drones? For this king of people are created and published in Poland easy rules:

- Age at least 14 years old (to sign up for the theory course) and then minimum 15 years old if you want to finalise the licensing process and do the practical training and exams.
- Choose the ATO (“Drone school”), which focused also on drones – national aeroclub or private institution.
- The prices differ due to the city and interest in given season. In Poland the average cost is around 1600PLN (ca. 400€).
- Theoretical course takes place usually during the weekends and lasts around 60 hours. Some schools offer courses on-line.
- At the end of the course the student has to pass 7 exams (one from each subject) and then is allowed to start practical course. During this course the instructor try to teach how to control the drone, fly, take off and land safely.
- Next step are exams on ULC, situated in Warsaw (Civil Aviation Authority), and when the student passes them (he needs minimum 75% from each subject), he is allowed to have the last examination- state exam, theoretical firstly, and then practical one. During the practical exam, the state examiner prepares some exercises for students, for example to fly in the shape of reversed eight. After successfully passing are students licenced and receive the certificate. According to the new Ministry of Infrastructure amendment, after the 31.01.2019 it’s easier to get a drone licence.

It depends on the student and his preferences which type of course/licences prefer. Some different courses are available in Poland. The most basic one is VLOS (Visual Line of Sight) when the pilot-drone operator needs to see their drone during the whole flight. In Poland is defined that the drone can't be heavier than 25kg. There is also a new convenience- it is possible to fly for children of the age of 13 years old under the adult's supervision. Next step is BVLOS (Beyond Visual Line of Sight), which allows to fly the drone "higher and further". Flying with BVLOS is possible only on drones inscribed into the Register of aircraft. Later you can "expand" your qualifications and drone-school offers wide range of additional options such as photogrammetry course, area-control flights etc.

After receiving of the qualification is important to stay in training, in order to not forget how to fly properly. A lot of incidents, sometimes dangerous, were caused because people were not certain about their abilities, which in fact were not enough to provide safe flight.

The problem with flying drones in Poland, as also all over the world is that for a great group of people drones are still just other toys in the collection, Christmas gifts for a child or longer selfie-sticks during family's celebrations or parties as we explain in the introduction. This idea is wrong. Drones can be dangerous for communication, navigation and surveillance systems (Novák et al.2018). Drones are types of aircraft which share the same sky as gliders and jets, so the UAV pilots have to be responsible and know at least basic rules which have to be respected. In Poland based on the Regulations of the Minister of Transport from 26.03.2013 can be detailed 7 main rules for drone-operators (pilots):

1. Be especially careful, avoid any action or omission that could:
 - a) Create a security risk, including the threat to air traffic safety;
 - b) Obstruct air traffic;
 - c) Disrupt peace or public order;
 - d) Expose anyone to damage.
2. Control the UAV/flying model in a way that avoids collision with other aircraft.
3. Ensure that UAV/flying model gives the flight priority to manned aircraft.
4. Use the UAV/flying model and control in accordance with the manufacturer's recommendations and restrictions (if published).
5. Before the flight check the technical condition of the UAV/flying model.
6. Performs only UAV/flying model that is technically efficient.
7. Be responsible for the decision to perform the flight and its safety, and the appointment and participation of an observer in the performance of flights does not release him from responsibility for the safety of the operations performed.

Next important according to Polish law is the insurance- which is very important in case of an accident and is obligatory. There are plans about changing this requirement and many drone-schools are offering their own insurances during the practical training. Expect of the law, it is always better to have your own insurance to feel more comfortable. But in this moment, it is rational, that if someone want to really do something with drones, the drone has to be insured, it based on the same principle as "big aircraft" for commercial air transport or vehicles. It is also important to mention that in Polish general code the penalty envisioned for disobedience is even up to 5 years in prison. Previously, when flying drones' topic was not so famous, a lot of police officers were lack of knowledge in this field of enforcing non-compliance legal UAV regulations on and used the general rules. There were cases of incorrect consequences from acts that were not really offenses. Even worse breaking the UAV law without being punished. Fortunately, as this field of aviation is gaining popularity, more and more courses are being provided and in Poland is more and more licensed UAV- operators (pilots) not only as a hobby pilot. But still following rules is not about being afraid of the penalty. Flying safety is the most important because the air space is here for everyone-professional pilots and also hobby pilots. Everyone should be responsible to make aviation safe and friendly.

3. Slovak UAV legal framework

In the Slovak republic (SR) is situation very similar as in Poland, what issues from membership in EU and acceptance of European UAV legal framework. In Slovakia UAV rules were defined since 2015 by the Decision No. 1/2015 of 19 August 2015 on conditions of an unmanned aircraft flight operations in the airspace of the Slovak Republic (The Decision of the Director of Transport Authority further only „Decision “). Contained in the decision were definitions of possible UAVs such as: an aircraft capable of flying without pilot (unmanned aircraft), autonomous aircraft, remotely controlled aircraft or models of an aircraft and a system of remote control, simultaneously defining the basic conditions under which flights can be performed in the airspace of the Slovakia. All the conditions mentioned can be included into the models of situations that might potentially occur, however, it is important to realize that at the present time a new legislation of this area is approved, either at the EU level and also in the Slovak republic. With respect to the technological development, they are not going to be so strict as regards making use of the UAV even in partially autonomous flight mode notably at rescue operations in emergency situation (Čatlos et al.,2018). The basic civil aviation Slovak legal documents especially for UAV are the Act No. 143/1998 Coll. on civil aviation in the wording of later amendments later as Civil Aviation Act, since the 14th of November 2019 the Decision No.2/2019 on determination of conditions for unmanned aircraft flight operations and restriction of specific categories aircrafts flight operations in the airspace of the Slovak Republic entered into force on the 15th of November 2019. An indispensable part is Slovak aviation regulation type L2 – Rules of the Air based on the Annex 2 to the Chicago Convention and Commission Implementing Regulation (EU) 2016/1185 of 20 July 2016 amending Implementing Regulation (EU) No 923/2012 as regards the update and completion of the common rules of the air and operational provisions regarding services and procedures in air navigation (SERA Part C) and repealing Regulation (EC) No 730/2006. This

new Decision has changed the structure of the document and the most important is according to new EU rules creation of Class C0-C4 unmanned aircraft means a remotely piloted aircraft or a model aircraft with a maximum take-off mass and the categories of operation A and B and subcategories A1-A3 (Škultéty&Kandera, 2019). Next described information is coordination in controlled airspace, special aerial works, theoretical exams and practical exams for operator of UAV (pilot) and in the Decision No.2/2019 named as remote pilot, where more usefully information can be found on the webpage of Transport Authority- Division of Civil Aviation.

4. Conclusions

As is written in the paper the European UAV legal framework is uniform and both states- Poland and Slovakia implemented the European legislation into their national legal systems. The way how it was done is different, each state has chosen their own kinds of legal regulations, but the idea and the results of the applied rules are the same. This interesting and new part of international, European and national part of law is depend on the development of the drones, so we will see how the new rules will work and what has to be change in the future.

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