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## **Legal status and operational airspace safety of unmanned civil aerial vehicles**

### **Summary**

**Keywords:** unmanned aerial vehicles, airspace, civil aviation, remote-controlled, safety, aircraft incident, principle of sovereignty, flight operations, safety management analysis, safety performance, aviation safety theory.

The dissertation analyses safety issues related to the inflight performance of civil unmanned aerial vehicles related to Polish, European and international regulations. The results of this research and conclusions from the comparative analysis have been taken into account throughout the course of the work.

The topic is so narrow that it was possible to carry out an in-depth analysis of the topic together with the indication of specific solutions. At the same time, it is so innovative that it covers not only a complex problem concerning the issue of legal regulation of unmanned aerial vehicles, but also the whole spectrum of issues related to other branches of law - which this makes the dissertation interdisciplinary.

The main issues of the dissertation concentrates on presenting the current legislative solutions, topics related to the the inflight performance of civil unmanned aircraft, issues related to the operational safety of operations performed using these flying objects and detailing the potential threats as well as damage liabilities. The dissertation is divided into five chapters which describe the legal background and individual aspects of the title issue. The chapters are divided into smaller editorial units.

In accordance with the structural concept, the first chapter outlines the aviation regulations, characterising civil aviation, primarily highlighting it's history and the impact on the present day from this study's point of view. special attention is given to the root cause of civil aviation accidents reviewing them. The chapter concludes by considering the society's influence on the growth of increase in aviation.

The second chapter gives a broad presentation of international airspace, as well as European and national legal regulations. When discussing airspace, particular attention was

paid to its division by indicating and describing its zones, classes and types. Separate attention is paid to the issue of state territorial borders relating to airspace boundaries.

The third chapter contains a discussion on unmanned aircraft legal regulations and classifications. Classes, categories and subcategories of aircraft and their designations are determined, with an additional division of UAVs ones. The chapter also lists the components of UAVs that enable them to operate in the airspace. The chapter concludes by analysing the integration of UAVs in the EU civil aviation system.

The fourth chapter is devoted to describing and identifying the types of hazards and risks associated with the use of unmanned aircraft. This part of the dissertation deals with the theory of flight safety and the issue of drones anti-intrusion protection.

The fifth chapter is details the preservation of airspace flight safety, namely criminal and civil liability for the improper use of unmanned aircraft. Within the framework of this chapter, the author analyses the types of insurances, civil and criminal sanctions and the possibilities of pursuing claims related to damage caused by drones.

The dissertation concludes by presenting the proposal and the research summary.

The aim of the research was to assess the impact of unmanned aerial vehicles (UAVs) used in civil aviation. The issues of broadly understood safety, in terms of incidents that have already occurred, as well as those that may arise in the future in relation to the scope of existing legal regulations. The research concentrates on paramount topics related to the regulations and interpretation the civil unmanned aerial vehicles flight performance. The analysis of past and current aviation law regulations relating to unmanned aerial vehicles shows the tendency to provide a higher level of protection by introducing appropriate provisions and harmonising the existing legal framework.

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