

Summary of Ph.D. dissertation
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Branch of science: Social Sciences

Field of study: Jurisprudence

Thesis Title: **Conducting key proceedings to take evidence as part of a plane crash investigation**

The dynamic development of aviation, the impossibility of eliminating the human factor as a significant cause of aviation incidents, and the unsatisfactory results of investigations conducted so far in cases involving aircraft disasters have become the basis for choosing the topic of this dissertation and narrowing its scope to the most important proceedings to take evidence carried out in the course of such investigations.

The main scientific objective of the dissertation is a comprehensive analysis, and evaluation of the legal solutions in force in Poland that apply to proceedings to take evidence carried out as part of an investigation of an aircraft crash site – understood in the broad sense of the word – conducted by the judicial bodies in the course of preparatory proceedings, taking into account the powers of other agencies involved in the investigation, leading to the development of solutions to eliminate existing ambiguities, improve cooperation, accelerate such proceedings, and reduce their costs.

Based on the analysis of legal regulations described in this dissertation and practical problems emerging on their basis, the cognitive and practical benefits of the conducted research come down to resolving the existing doubts or proposing necessary changes in the binding legal regulations.

The dissertation includes an introduction and five chapters, as well as a conclusion containing *de lege ferenda* recommendations.

Chapter One discusses the concepts of an accident, a serious incident, and an aviation incident. The notion of an aviation crash, which is crucial for further considerations, has also been defined herein as an event that suddenly and dangerously disturbs air traffic carried out both in the airspace and on the ground during the flight-related movement of aircraft, resulting in at least a specific and real state of emergency for no fewer than 10 people or assets in the form of things or a sizeable conglomerate of things.

It also presents issues related to the development of aviation and aircraft accidents accompanying it since the inception of aviation, showing the impossibility of a complete elimination of the human factor as a common cause of aviation incidents.

Based on the analysis of the views expressed in the doctrine of criminal trial and in the case law concerning Article 173 of the Polish Criminal Code, this dissertation provides a detailed description of the circumstances that need to be proven in the course of an investigation into the causes of an air traffic crash.

The subsequent chapters present the key proceedings to take evidence to be carried out in the initial days and weeks of an investigation, with said proceedings being related to the broadly-defined investigation of aircraft crash sites.

The second chapter is devoted to the examination of the aircraft crash site. The chapter discusses in detail all the stages of those proceedings to take evidence, emphasising the specific circumstances related to their subject. It also discusses certain issues concerning the preparation and documentation of the proceedings, as well as the accomplishment of individual phases. Attention was drawn to the threat to life and limb of members of the examination group present at the site of a crash and the issues involved in carrying out activities on that site by representatives of the air incident investigation agencies.

An analysis of the issues related to the inspection of a crash site led to the conclusion that it is one of the most complicated and important proceedings to take evidence carried out in the course of an investigation. The efficiency with which both the above-mentioned proceedings to take evidence and other such proceedings discussed in subsequent chapters are performed in the course of an air crash investigation is of fundamental importance to satisfy the requirement for such cases to have sound proceedings to take evidence; moreover, in achieving that goal the cooperation with other parties involved is streamlined, the objectives of the criminal proceedings are more easily obtained, and the assurance of a high level of civil aviation safety *sensu lato* is thus facilitated. These activities should be carried out with mutual respect for the powers of the entities involved and with an awareness of the hazards present at an air crash site.

The third chapter deals with the examination of dead bodies at an incident scene, as well as the subsequent external and internal examinations of the bodies of aviation crash victims in forensics medical centres. The chapter also points out the need for proper documentation of these activities, the importance of which is not limited to the identification aspect only. The basic objectives of said activities and the ways to achieve them are discussed. Based on the usage of modern computer software, the importance of achieving detailed findings during the examination and the autopsy of the victims of an aviation crash has been proven, with particular emphasis on the often downplayed reconstructive aspect of these activities. Also briefly discussed are issues related to the concept and the legal nature of human remains and pieces thereof, the differences between a forensic expert and a pathologist, as well as the issue of the

participation of the members of the DVI Team and the air incident investigation agencies in the undertaken activities. As a result of deliberations, a view has been espoused that dead bodies are to be treated as *sui generis* things; furthermore, it has been shown that forensic experts should necessarily be appointed to perform examinations and autopsies of corpses and that there are some positive aspects arising from the cooperation with the members of the DVI Team, which offer significant advantages with respect to the process of identification of victims of air disasters, including the exchange of information at an international level. Without prejudice to the rights held by the members of the air incident investigation agencies, the analysis of the content of the regulations in European Union law and domestic law has led to the conclusion that the members of said authorities do not have the right to demand participation in an autopsy performed during the investigation, to be understood as meaning that they may not be present, actively participate in the activity and even partially shape its course.

In addition, also discussed are issues related to the exhumation of dead bodies and the extremely controversial issue of the appealability of the decision to carry out an exhumation. A generally ancillary nature of exhumation has been highlighted by describing in detail the process of preparing and carrying out this activity. It has been demonstrated that in the current legal state there is no possibility of appealing against an exhumation order. Furthermore, the circumstances preventing the practical implementation of the assumptions presented in the case-law of the European Court of Human Rights are presented.

Chapter four addresses the issue of interviewing participants and eyewitnesses of an aviation accident. This chapter discusses the concept of a witness and the importance of their testimony in a criminal trial. It has been shown herein that the participants and eyewitnesses of a plane crash can be a source of important information facilitating the achievement of the objectives of a criminal trial; nevertheless, to meet this goal it may from time to time be necessary to carry out the official activities with their participation in a manner other than is customary. Sometimes it may be justified to interview such witnesses at a place from which they witnessed a given incident or during a procedural experiment that reflects as faithfully as possible the circumstances experienced by a given witness. It is also of great importance for the effectiveness of the interrogation of witnesses to cooperate both with expert witnesses who have subject-matter expertise applicable to the subject and the object of the activity and with the members of the air incident investigation agencies.

This chapter presents in detail all stages of witness questioning, highlighting the idiosyncrasies present in the manner it is conducted in the course of an aviation crash investigation as compared to witness questioning in other cases. Additionally, it briefly discusses the evidence lineup as a special form of interrogation and the possibility

of interviewing a witness as part of other proceedings to take evidence. Furthermore, the problematic aspects of the participation of the members of air incident investigation agencies in witness examination are highlighted, including the detailed scope of such participation, with particular attention being paid to the fact that such members may not be examined as to both the contents and the results of the investigation process in which they take part.

The fifth chapter of the dissertation covers the subjects relating to evidence given by expert witnesses appointed in an aviation crash case, including their participation in the previously described procedural activities. It contains a discussion about the concept of an expert witness, emphasising the role an expert consultant should play in this type of investigation. The issue of conditions for admitting expert testimony has also been presented. Additionally, the chapter discusses in detail the issues related to the issuance of a decision on the admission of evidence given by an expert and stresses the importance of the opinions prepared by experts participating in a team or teams, in particular in relation to issues requiring knowledge of many different fields of science and technology. The criteria for evaluating the opinion and the methods of its convalidation have also been taken into account. Also discussed were issues related to the evidentiary nature of both the final report from the investigation of an aviation incident and private opinions, emphasising the need to make independent findings during the investigation in accordance with applicable criminal procedure.

The final result of the discussion in this chapter is the opinion that experts' participation in an air crash investigation should not be postponed till all evidence has been gathered. An expert, or preferably a team of experts, should cooperate with the prosecutor from the very first steps of the investigation, helping them in collecting said evidence to the extent necessary to resolve the case.

The last part of the dissertation is a summary of the previous considerations containing the most important conclusions and *de lege ferenda* recommendations.

The dissertation contains concrete proposals of practical solutions that are compatible with the current legal status of the law, as well as the recommendations for the development of proposals for legislative changes largely eliminating the perceived problems, significantly simplifying cooperation, reducing the costs of a broadly-defined aviation incident investigation and the duration of the investigation.

This dissertation is essentially a study in criminal procedure, but it takes extensive account of the forensic and forensic-medical aspects of the proceedings to take evidence.

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