

SUMMARY

The topic of this work is *"THE USE OF UNMANNED AIRCRAFT FOR TERRITORIAL DEFENSE FORCES (TDF) IN EXPLORATION AND RESCUE ACTIONS"*.

The main purpose of this paper was, as it appears from the topic of the thesis, *to present and discuss the issue of using unmanned aerial vehicles of the Territorial Defense Forces in a broad sense, including for search and rescue operations, using the available didactic materials and own considerations.* The method used to carry out the research described in this paper is the selection and review of the literature. The second part of the research was carried out using the method called "case study". The description of the case study was prepared on the basis of two questionnaires, an expectation interview questionnaire and an expert interview questionnaire.

The aim of the work was mainly achieved through the answer, in the content of the work, to the main problem i.e.: *What are the practical applications of UAV (Fly Eye – FE) systems available to TDF, in a broad sense, including in search and rescue operations?* and on specific problems set up appropriately for the various respondents who participated in the study. The structure of the work is subordinated to specific problems, i.e. the work consists of four chapters. The first chapter presents an analysis of the formal and legal aspects of the use of UAVs. This chapter focuses in particular on the terminology and definitions, the structure of the airspace of the Republic of Poland, which is generally divided into controlled and uncontrolled space, the provisions on unmanned aerial vehicles and the location of unmanned aerial vehicles in the TDF structure. The second chapter discusses the technological issues (technical characteristics) in the observation measures used in UAVs. This chapter focuses in particular on the presentation of the development of unmanned aerial vehicles and the introduction of the implementation outline in the Armed Forces including TDF, operational and technical characteristics of unmanned aerial vehicles of the UAF – FE, and the discussion of the application of warheads and cameras used in the system. The third chapter of the work discusses the factors that have an impact on search and rescue operations in Territorial Defense Forces using UAV – FE. This chapter discusses issues such as the UAV pilot-operator training system in Poland, and the UAV pilot-operator training system in Territorial Defense Forces. In addition, the results of the research as part of questionnaires were presented and summarized by presenting the issue of factors

that affect the search and rescue operations in the Territorial Defense Forces using UAV. The last chapter describes recommendations for the use of UAV in search and rescue operations. This chapter presents recommendations for adapting to formal and legal regulations, in terms of improving the effectiveness of Territorial Defense Forces with the use of UAV – FE, and in the scope of joint activities of entities participating in search and rescue operations.

In the professional literature, the issues of unmanned aerial vehicles and related issues are of great importance. As for the amount of available materials, the discussed issue is quite large in the case of book publications and publications in trade journals in the form of articles. No difficulties were encountered in obtaining materials and information necessary for its writing.