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The structure, activity, operation and development possibilities of the Disaster Management Operational Service

doctoral (PhD) dissertation author's description

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DISASTER MANAGEMENT OPERATIONAL SERVICE

The national disaster management system has undergone significant changes in recent years, one of the pillars of the Disaster Management Act, has fundamentally changed the structure of disaster management, and the supplementary controllers changed the parameters of the operation of the system. From 2012 onwards, state involvement has increased, the structure of governance and supervision has changed, the organizational structure has been transformed and some apparatus has been integrated.

One of the elements of the renewed system is the **Disaster Management Operational Service (DMOS)**, which started functioning as an independent organizational element on 1 April 2012 in every county and capital. Professional Territorial Bodies operating under the National Directorate General for Disaster Management, Ministry of the Interior (NDGDM) are County Disaster Management Directorates (19) and the Disaster Management Directorate of Budapest. The directorates must have a standby service, which is the Disaster Management Operational Service. Members of the service carry out their activities on the basis of laws, ministerial decrees and directors' actions.

STATEMENT OF THE SCIENTIFIC PROBLEM

The findings of my initial research analyzed the relationship between county directorates and fire brigades in terms of control, supervision and control of actions, and then I could incorporate my own experiences into my research. In my view, like all systems, the DMOS system can be improved. There is a need for more precise improvements in the Disaster Management Operational Service, and the system has generated anomalies that are inhibitory factors. For a period of six years, KMSZ has been engaged in activities with significant professional competence. During the time elapsed, the conditions, the expectations and the system of tasks have changed. In my opinion, a comprehensive review of the organizational unit, an analysis of its functioning and its implementation, is current. The present regulation of DMOS covers everything. However, as a scientific problem, the number of headcounts and the anomalies generated by system may occur, for which, according to my professional judgment, there is a solution. Based on the above, **the subject of the dissertation is the structure of the Disaster Management Operational Service as an organizational element, the system of operation, its operation and its development possibilities.**

RESEARCH OBJECTIVES

As a research objective, I make the following points:

1. Within the renewed disaster management system, following the **evaluation** of the legal and institutional system of fire protection and the evaluation of the regulators, the current operational parameters, application and task system of the Disaster Management Operational Services, **examined and evaluated** and the specific features of each DMOS operating in the country will be assessed

2. **Analyze and compare** the contents of the available databases, draw conclusions towards development, formulate the current innovation directions of the Disaster Management Operational Services, and **make suggestions for solutions**.

3. **Generate development opportunities** whose basic purpose is to identify the most important structural, operational, technical and personnel directives, in particular the aspects of organizational structure, control, fire investigation and firefighting activity.

4. My aim is to demonstrate statistical trends that have relevant information on developments and to pursue research that can draw conclusions from comparisons and conclusions.

5. I would like to **give a comprehensive picture** of the circumstances, parameters and tools of the applications of the Disaster Management Operational Service. I want to **work on methods and documents** that would make the task of the DMOS more coherent and more efficient.

RESEARCH METHODS

In order to attain the objectives set, I studied the relevant regulations and literature in which I applied general research methods. I have studied and evaluated the related, scientific, relevant literature and articles published in the field of fire protection. Much of the information cited in my dissertation was processed from NDGDM databases. With the help of the Disaster Data Program (KAP Online) and the OKF Intranet, I could build in the organization's application and intervention statistics and the exact figures related to the achievement of the objectives of the dissertation. For the purpose of the dissertation conclusions and scientific results, I evaluated the implementation of the regulations of the regulators and the rules of my research work.

As an empirical research, I traveled to all Disaster Management Operational Services in Hungary so I could gather the characteristics of the services of field organs through my personal experiences. I have the opportunity to study the disaster management system of the Member States of the European Union on open foreign missions and analyze the experience gained by comparing the operation of the organizations. Based on my questionnaire surveys (managers, executives, firefighters, and professionals), I have evaluated in detail the functioning system, its structure, location and role in the disaster management organization. In my dissertation, I have used my articles, my papers and my application material on this topic.

DESCRIPTION OF THE INVESTIGATION AND RESEARCH

Chapter I. of my dissertation, on the one hand, provides a brief overview of the structure and elements of the system of modern disaster prevention. In this chapter, I present the regulations and the history of the Disaster Management Operational Service and its structure and management. I present the environment, parameters, roles of the service of the DMOS, and analyze the circumstances, processes and facts of the activities.

The **II. chapter** on the application and operation of the DMOS. In this section, I examine the activities of the Disaster Management Operational Service in the aspect of fire management and organization. I analyze the system of exercises and inspections and the information of the DMOS's recourses. I present the role and tasks of the organizational unit in relation to fire investigation procedures.

Chapter III of my dissertation includes research elements and development opportunities. I summarize, examine, and draw conclusions from my national level analysis, my professional questionnaires and foreign experiences. Analyzing these results, I formulate development directions and opportunities, conceptual ideas and concrete ones. Transforming the organizational and management system, solving the staff issue is a fundamental professional issue. I examine the role of the forms developed for termination of the identified shortcomings and suggest the development directions of the exercises, the operational strain, the fire test and the training methods. I have modified some of the controllers to resolve the detected system anomalies.

The structure of the Disaster Management Operational Service was examined in a complex way, so I placed it in the disaster protection system and then discussed the conditions of operation. The research period included in the dissertation is from April 2012 to December 2017. Some data may differ, as the professional questionnaire is dated March 2018. Among the professional activities I have limited my research to the rescue fire protection, although the use of the DMOS may also involve civilian, civil protection and industrial security activities. In terms of interventions and operations, I analyzed, evaluated firefighting events and based my personal experiences and pragmatic approach on the development of the developments. I looked at the tasks or actions that I think could be improved, analyzed and deduced conclusions.

SUMMARY CONCLUSIONS

The figures of the many years of existence of the Disaster Management Operations Service clearly illustrate the function of the organizational element, the relationship between interventions and other applications. **I have shown** that the elimination of damages is an element of the DMOS that, in addition to real intervention, participates in the coordinated operation of the official segment, such as alarm, tracing, reconnaissance, intervention preparation, intervention, its safe regulations and post-work tasks, fire investigation procedure. Variable functions make the operation more colorful, so I declare that it can only partially parallelly with the organization of the former "Fire Fighting Group". The parallel has a lot of similarities in the direction of firefighting, territorial distributions and the foundations of the formation. However, the service of the DMOS now functions more extensively, has more responsibilities and powers. **I have determined** that the Disaster Response Operational Service is a specially trained intervention unit of territorial bodies that has the competences that need to be professionally supervised by fire brigades. Members of staff must meet high standards, both professional and health. **I have shown** that the DMOS is an organization of a regional disaster management body that is capable of performing complex, intervening, controlling and authority tasks.

I have collected and analyzed the available and relevant statistical databases of the establishment of the DMOS (April 2012), which show that the control task system required for the DMOS is a decisive part of the core activity. The controls cover practices that are more regulated than fire service provision, service change, or training. **I examined, evaluated** the role of audits, measured the volume on the basis of statistics, and reviewed the level of regulation.

The four different questionnaires were used to assess the opinion of the intervener, the management and the professional level of management, including the views of all actors in the activities related to the Disaster Management Operational Service. Since the survey, some level of development is likely to be achieved at the technical level, but there is a clear need for innovative solutions in terms of policy, service management and governance. The questionnaires reveal the basic difference in opinion that the DMOS is only active in and engaged in the firefighting field (operations, intervention-control,

oversight of fire brigades) or a unit of the County Disaster Management Directorate that can be deployed at any time for the execution of all types of tasks (official activity, industrial safety and civil protection tasks). During the professional examination of the management system, I analyzed the competencies and competencies and then **I formulated a rearranged organizational structure that proved its effectiveness.**

The development possibilities developed for the implementation of the tasks of the DMOS and the provision of services include findings on the following topics:
- The organization's management system
- Staff
- Checks system
- Exercises
- Fire Investigation
- Possibilities for use in the Operational Tribe
- Equipment
- System anomalies
- Training development

I have examined and evaluated the number of staff members of the DMOS and can declare that the number of Disaster Response Operational Services is inadequate. There are 9 people per district that would cover the number of people working for 2 people per day (which is still a requirement). The staff of 2 people per day would ensure the personal conditions of the task performance, whether it is fire investigation, intervention or control. In the event that the upload can not be solved, **I have developed the 'parallel control principle', where partial results can be obtained, and which principle was first defined in Hungary within the Disaster Management System.**

In order to increase the quality of inspections, I have **developed a common control protocol** that can be used by everyone, the use of which will standardize the control system. The anomalies discovered as a result of the complex analysis have been verified professionally, they can be eliminated by modifying each of the controllers. It should be emphasized that I have only made versions, I do not have the power to legislate.

The documents I have produced, ie the four questionnaires, the counties and the capital, and the three audit protocols are **annexes of my dissertation**, while the **appendices** are documents of the activity, operation and statistics of the DMOS. The tables, figures and pictures of the attachments and appendices are not numbered, by their nature.

SCIENTIFIC RESULTS

1. I have conducted a complex topic examination, which has **resulted in the development of a new organizational management system**, where the direct task can be implemented, that is, the county superintendent of the fire department is professional and service leader, and a more significant role is given to the KMSZ.

2. Thanks to the surveys, **I have defined concrete directions for each activity element.** I have demonstrated how the **'DMOS exercise'** can be realized with regard to the system of exercises. I have proposed the use of the DMOS in an operational tribe, the development of equipment, and the possibilities of application in the fire investigation procedure. In terms of training and further training, I have demonstrated the importance of training at national and regional level (and practice) as well as the rationality of courses at the level and in the professional forums. During the analysis of the fire-fighting activities of the Disaster Management Operational Service, I revealed the contradictory regulations of the regulators. I have proved a contradiction in 39/2011. (XI.15) Decree of Section 5 (1) of the Ministry of the Interior and the 2/19 point of the DMOS measure. I made a proposal for the change so that the DMOS should be obliged to take control after arriving and reconnaissance. I have shown that the parameters of controls, the activities of local and regional organizations in the DMOS (and other territorial competences) should be clearly defined. **I gave clear answers** to the amendment of the internal regulators, the Service Regulations[1], the Control Code[2], the Fire-Tactical and Technical Rescue Rules[3] and the VPN Measure[4] for the DMOS.

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[1] A Katasztrófavédelmi Műveleti Szolgálat, a Katasztrófavédelmi Mobil Labor, valamint a Katasztrófavédelmi Sugárfelderítő Egység tevékenységének szabályozásáról szóló 4/2017. számú BM Országos Katasztrófavédelmi Főigazgatói Intézkedés

[2] A hivatásos katasztrófavédelmi szervek ellenőrzési és felügyeleti tevékenységének szabályairól szóló 33/2016. számú BM OKF Intézkedés

[3] BM országos katasztrófavédelmi főigazgató 6/2016. (I. 24.) BM OKF utasítása a Tűzoltás-taktikai Szabályzat és a Műszaki Mentési Szabályzat kiadásáról

3. I have **developed a document system** that serves the effectiveness of the controls and optimizes the timing. **I have developed first the audit protocol** for the DMOS (and other controllers) in three audit areas, such as service provision, service change and training sessions.

4. **I have verified** that the number of the staff of Disaster Management Operational Services is more problematic. I emphasized the vitality of uploading the stock. Based on the analysis of the national survey, I have proved that the DMOS can't perform its tasks efficiently with the current staff. As a result, **for the Disaster Management and Fire Department, I defined first the 'parallel control principle', and based on this, I developed first the parallel control method within the Hungarian unified system of disaster prevention.**

PRACTICAL APPLICATION OF RESEARCH RESULTS

The reasoning, guides, and development directions in my judgment can be taken into account in developing professional guidelines. The outlined ideas and suggestions can positively influence the activities of the Disaster Management Operational Service so that it is possible to develop a development strategy based on the 'Development Opportunities' that is efficient and feasible.

When introducing the management structure outlined by me, a direct county-level fire department superintendent would be controlled by the DMOS, and the direct task statement would be realized. This would create the activity method for the DMOS to be the operative manager for fire extinguishers. Changing NDGDM measures would make the intervention smoother and there would be no unclear issues.

Following a thorough analysis of the operation of the Disaster Management Operational Service, I have developed concrete guidelines for change through 'Development Opportunities'. The services are able to work more efficiently when introducing or applying my resolutions on the reorganization of the organizational structure, further

[4] 32/2017. számú a BM OKF, mint EDR VPN gazda szervezetnek az egységes digitális rádiótávközlő rendszer 52-es virtuális magánhálózat üzemeltetésének és használatának általános VPN szabályairól szóló intézkedés

training, fire investigation and auditing. Levels of implementation may be different, as the development opinion contains elements that may be prescribed by an operating document, that is, by an internal regulator, but also include a statement where certain legislation is being amended. For equipment, development is dependent on financial resources, so it would be possible for scheduled execution. Renewal of the training system requires internal needs as well as ways of implementing further training and exercises.

The parallel command system would be a temporary solution to the number of staff, but of course the full charge would be the goal. The guideline can be introduced with minor modifications of internal controls instantly. System setup of audit protocol forms could standardize the system of audits, no matter which organization is the auditor, which would organically contribute to unit consolidation.

RECOMMENDATION

The introduction of a **control protocol** would make the control system more uniform and increase its effectiveness. When using the protocol, standardization is performed, so the system of criteria is independent of the controller (either commander, DMOS, principal or national level supervisor).

Due to the differences, circumstances and capabilities of the territorial organs and the Disaster Management Operational Services, my research has shown that it would be worthwhile to carry out further research. **Differentiated tasks and dislocations**, professional competencies and priorities, scientific research and case study analysis can be used to justify the elements to be renewed for the disadvantaged activity system. Nógrád and Heves counties 2012-2017, I analyzed the data of the DMOS, I came to the conclusion that the two counties would be enough to operate with one service with an optimal number, based in Gyöngyös. Dislocation is also current in Bács-Kiskun County, because of the large distance it is justified to move or subdivide (with Kecskemét and Baja centers).

In the field of data surveys and analyzes related to fire investigation, I also consider the differentiated task statement and the condition insurance as justified, which can be determined on the basis of further investigations. Further, during my research, fire test parameters emerged that show a common part of the conduct and methodology of the on-site inspection with the activities of the police. Thus, I propose to examine the establishment and possible operation of a joint outreach committee or a fire investigation team and to analyze the possibilities of cooperating in the further investigation of the fire investigation procedure, because statistical data show that both organizations have a duty (death, crime) in 68.6% of cases.

With regard to technical developments, it is necessary to formulate continuous innovation, that is, to further examine the application of specific technical equipment, solutions and tools, and analyze their application and use.

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