

The Disaster Management Operational Service

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The national disaster management system in Hungary has improved significantly in the past several years. The Disaster Management Act of 2011 fundamentally changed the structure of the emergency management system and complementary regulations now include mandatory functions. One of the elements of this renewed structure is the Disaster Management Operational Service (DMOS), which entered operational phase as a separate organisational body in every Hungarian county as well as the capital on April 1, 2012. The county directorates are obliged to run a standby service to have professionals on duty at all times in 24/48 shifts. DMOS actions can be intervention in fire emergencies, technical rescue, exercises, control activities and the fire investigation.

Keywords: *Disaster Management, Disaster Management Operational Service (DMOS), fire, technical rescue, fire investigation, exercises, control, development strategy*

The national disaster management system in Hungary has improved significantly in the past several years. The Disaster Management Act of 2011 fundamentally changed the structure of the emergency management system and complementary regulations now include mandatory functions. New act and the government decree (234/2011 on the execution of the Act on Disaster Management) entered into force on the first of January 2012. The key aspect of the act was that firefighting and technical rescue became the responsibility of the Hungarian State.

Introduction

“The four pillars of the act are the strengthening of the protection against major accidents involving dangerous substances, the improvement of population protection, the

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development of the system of civil protection and the establishment of an uniform and strong disaster management body, including the formulation of the maintenance and control of professional fire brigades by the State.”³

Operational fire protection tasks belong to the professional fire brigades. The entire territory of Hungary – as an operational territory – is covered by professional fire services. One of the elements of this renewed structure is the Disaster Management Operational Service (DMOS), which entered operational phase as a separate organisational body in every Hungarian county as well as the capital on April 1, 2012.

Current structure⁴

National Directorate General for Disaster Management (NDGDM)

- County disaster management directorates (20)
- Disaster management branch offices (65)
- Professional fire headquarters (105)
- Disaster management posts (58)
- Municipality fire brigades (60)
- Industrial fire brigades(72)

Organization

The regional bodies (20) operating under the Ministry of Interior National Directorate General for Disaster Management (NDGDM) are the county directorates of disaster management. The directorates are obliged to run a standby service to have professionals on duty at all times; this is the Disaster Management Operational Service (DMOS), which operates at every Disaster Management Directorate. The members of the DMOS fulfil their duty by acts, regulations of the ministry and are under command of the director general.

Table 1. Disaster Management Deployments⁵

COMPARISON OF ANNUAL DEPLOYMENT DATA BY TYPE	Operations	Fires	Technical rescue
2012	69387	35284	21260
2013	55451	18637	25498
2014	57265	18115	27407
2015	59857	19697	27343

³ LTG Dr. György BAKONDI: *National Director General for Disaster Management* (annual book)

⁴ Source: www.katasztrofavedelem.hu/

⁵ Source: NDGDM INTRANET

The structure of Disaster Management Operational Service

The operational area of a DMOS sector corresponds to the area of a particular county. This means that any given DMOS is only entitled to intervene or supervise at incidents and fire service interventions inside its own county. The fulfilment of this duty requires 24/48 shifts with constant standby at the station of duty (this means one day duty, two days off). The number of days on duty, the day offs and holidays are pre-set by internal regulations. The number of staff in the DMOS consists of nine people in each county, of which three are chiefs of duty, three are deputies and three are safety and security officers (two-three persons per day). On top of that there are five persons employed in the capital as drivers, where the daily minimum for the number of people on duty is three (two persons + one person as driver). The main requirements of this role is to have a BSc or MSc in fire service, to be a fire chief with at least two years of experience, to be in possession of a driving licence with extra blue light qualifications, as well as having a clean bill of health and fitness. Duty starts between 6.00–8.00 am and shifts last until the next morning. They kick off with a briefing, after which equipment gets checked (e.g. measuring tools, detectors, breathing apparatus). During daytime there are pre-defined tasks such as organising drills and training sessions.

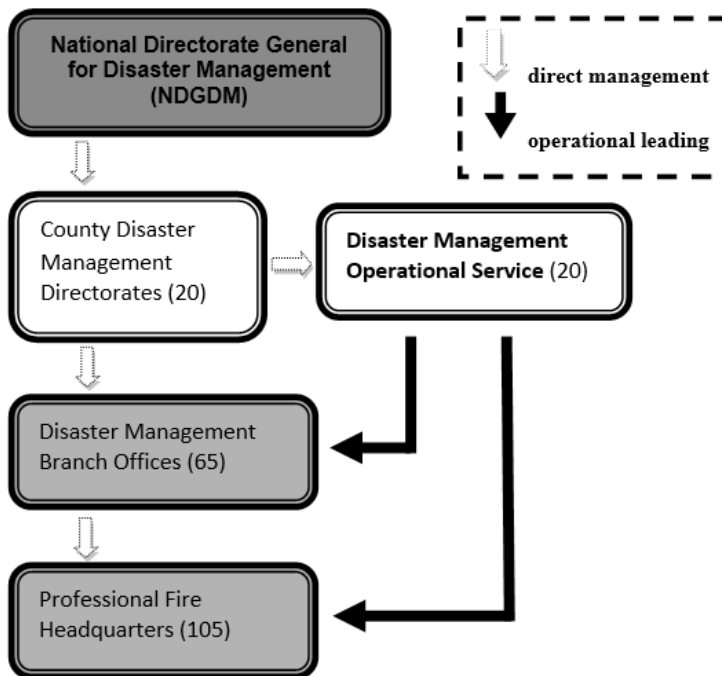


Figure 1. Structure of Disaster Management Operational Service⁶

⁶ Made by author

Deployment of the Disaster Management Operational Service

The level of a call-out determines the number of forces required to attend an incident. The alert level is classed from one to five. The type and the number of vehicles that are required are determined by the operations control centre.

The DMOS is called out in the following cases:

1. In cases of level II (2.5-3 units) or a higher alert level;
2. If a firefighter has been seriously injured, desperately wounded or has died;
3. If the county's or capital's main operations control on duty decide to call out DMOS based on feedback from an incident;
4. If the on-scene incident commander requests a consultation in the case of a complicated incident (technical rescue, crane, rescue from heights/depths, accidents caused by fallen trees, etc.);
5. If there is a need for DMOS's special equipment on site;
6. If a firefighting vehicle has been involved in an accident and it has caused personal injuries;
7. On direct order of a county's director;
8. On direct order of the county's Inspector General of Fire Services;
9. If a chief of DMOS decides to do so in order to control a safe outcome for an incident or it is reasonable to do so based on feedback.
10. Alternate deployment: if on-site inspection or on-site control is necessary.

The members of DMOS are required to deploy within two minutes after the alert comes in.

Table 2. Disaster Management Operational Service actions⁷

	All actions	Operations	Take over the command
2012 (from April)	5336	2212	471
2013	9054	3632	689
2014	8455	2994	635
2015	5674	2323	747

The DMOS supervise and control the safe intervention of the responders on an incident site. During the intervention the first and foremost task of the DMOS is to help and support the work of the incident commanders. When the case has been justified, they can take over the command. When an incident runs out of control, the DMOS will address the situation immediately. In case of large scale, complicated events which require a large number of resources, the DMOS organises and controls the command staff, while also initiating the engagement of volunteer rescue services and controlling their activity on site.

⁷ Source: disaster management reporting system (KAP online)

The Service cooperates with the integrated operations control, that means:

- Main Duty Service in NDGDM;
- Main County Duty Service;
- County Duty Service for operations.

The on-duty emergency call system of the disaster management operates 24-hours a day on each level to receive reports and emergency calls from citizens, and it carries out reporting and data provision activities to superiors and partner organisations.

IT developments that help the Service:

- integrated alert system,
- modern decision support,
- investments in informatics,
- SHIELD programme (for alerts).

The DMOS is constantly monitoring the availability of necessary personnel and physical means of safe interventions. The team members pay special attention to hazardous materials incidents, as well as to rescue operations from heights and depths. They also collect data about the use of PPE,⁸ its functional requirements or potential shortcomings or damage.

Exercises

DMOS organises training for the fire service units in its respective counties in order to improve operational preparedness, as well as technical rescue exercises. These also include other rescue agencies, which are not part of the fire service. Organising, managing and monitoring tabletop exercises, firefighting drills, joint emergency management exercises are also amongst the duties of DMOS.

Table 3. Disaster Management Operational Service activities⁹

	Exercises	Control
2012	933	2191
2013	1180	4242
2014	1228	4233
2015	1278	2073

The official documents of Disaster Management Operational Service:

- event logbook;
- duty logbook;
- basic acts, regulations, internal regulations and joint agreements related to duty;
- the Simplified Fire and Technical Rescue Plans in their operational area;
- the official documents and printouts for control;

⁸ Personal Protection Equipment

⁹ Source: NDGDM INTRANET

- direct order;
- handbook or software of identifying hazardous materials;
- work plan.

Fire Investigation

If any damage happens and the investigation officer is prevented, than the Disaster Management Operational Service needs to start the process. Reasons of fire investigation can be:

- alleged offense,
- firefighter injured,
- death,
- malfunctioning fire detector,
- qualified degree fire,
- considerable damage value,
- professional reasons.

Table 4. Fire Investigations¹⁰

	2011	2012	2013	2014	2015
Number of Fire Investigations	1487	1180	1009	716	786

Over the last couple of years approximately half of the fire incidents in Hungary have occurred as a result of open fire. DMOS puts emphasis on the training of fire investigation staff. In addition to its own training program, DMOS staff are trained by police investigators and US fire investigation professionals. The Fire Investigation Advisory Board provides assistance in organizing the work of fire investigation. At the meetings of the Board the regulation, issues in connection with the implementation, the equipment and personnel requirements of fire investigation are discussed.

Development Strategy

The basic result of the scan of Disaster Management Operational Service is that a “Development Strategy” is needed. The scientific outcome includes the followings:

1. “Number of staff members” – means the official establishment table prescribes 9 persons (3 per shift) but most of the regional organisations employs 5–7 fire fighters.
2. I prepared an “investigation protocol form”, which helps the supervision to be more accurate and exact.

¹⁰ Source: lieutenant-colonel László Fentor, Main Fire Investigator, NDGDM

Figure 2. Front page of investigation protocol form¹¹

Katasztrófavédelmi Művelési Szolgálat / Ellenőrzési Protokoll /		
Ellenőrzés szervezője:	Csoport:	
Ellenőrzés:	<input type="checkbox"/> Szolgálaton kívüli	<input type="checkbox"/> Szolgálaton belül
Ellenőrzés részvevői:	Ellenőrzés	
	Név, rf., bea.	Ellenőrzés
	Aláírás	
Ellenőrzés időtartama:	Korlat:	Vége:
	00:00 - 00:00	00:00 - 00:00
Szolgálati csoport - Szerállomány		
Napi szolgálati létszám:		db
Készletlétszám:		db
Rendészerelelt létszám:		db
Szabadság levők száma:		db
Szabadságon levők száma:		db
Vezetélfelvételek száma:		db
Esetleg szabadságon levők száma:		db
Egyéb ok miatt távollévők száma:		db
Alkalmazandó ellenőrzés:	db	Eredmény:
		db Negatív db Pozitív
Megjegyzés:		
Riasztó gépjárművek száma:	Típus	Állapot
I. szer:		db
II. szer:		db
..... szer:		db
..... szer:		db
..... szer:		db
..... szer:		db
..... szer:		db
..... szer:		db
Megjegyzés:		

Summary

The main functions of DMOS

- to support fire service incident commanders;
- to take over the management of large scale fires when deemed out of control;
- to be on 24/48 hours standby duty;
- to respond to any call-out within two minutes;

¹¹ Made by author.

- to deploy to the incident site with the pre-determined equipment;
- to implement operational analysis;
- to continuously monitor conditions for safe interventions;
- to supervise the quality of service.

The on-duty system of disaster management operates a 24-hour service at the national, district and local levels to receive reports and emergency calls from citizens, and it carries out reporting and data provision activities to superiors and partner organisations. Tasks of the DMOS include fast, efficient and safe intervention during firefighting events (fires, accidents, and other damage control); evaluating and monitoring fire tests as well as the analysis of incidents, of which the conclusions can then be used in the field of prevention and intervention; and coordinating firefighting and technical rescue activities. The main task of Disaster Management Operational Service is SERVING HUNGARY'S SAFETY.

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ABSZTRAKT

A Katasztrófavédelmi Műveleti Szolgálat

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Az utóbbi években a katasztrófavédelmi rendszer számottevő fejlődésen ment keresztül Magyarországon. A katasztrófavédelmi törvény (2011) alapvetően megváltoztatta a veszélyhelyzet-kezelés rendszerét, ahol a szabályzók tartalmazzák a szükséges tevékenységeket. A megújult struktúra egyik eleme a Katasztrófavédelmi Műveleti Szolgálat (KMSZ), amely 2012. április 1-től kezdve külön szervezeti egységként végez káreseti tevékenységet minden magyarországi megyében és a fővárosban. A megyei igazgatóságok hivatásos állományú, állandó készenléti szolgálatot működtetnek, 24/48-as váltásban. A KMSZ alkalmazása lehet tüzeset, műszaki mentés, gyakorlat, ellenőrzési tevékenység, valamint az egység felel a tűzvizsgálatért is.

Kulcsszavak: katasztrófavédelem, Katasztrófavédelmi Műveleti Szolgálat (KMSZ), tüzeset, műszaki mentés, tűzvizsgálat, gyakorlatok, ellenőrzés, fejlesztési stratégia