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Government vs. Governance in Central and Eastern Europe

From Pre-Weberianism to Neo-Weberianism?

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CONFERENCE PROGRAMME

Presented Papers from the 22nd NISPAcee Annual Conference**Government vs. Governance in Central and Eastern Europe: From Pre-Weberianism to Neo-Weberianism?**

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Presented papers by sessions and working groups

-  Main Conference Theme
-  General Session
-  Panel on 'Max Weber and Public Administration Today'
-  Joint ASPA-NASPA-NISPAcee Study Group on Cutback Management
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-  XI. Working Group on Public Administration During Transition, Change and Uncertainty
-  XII. Working Group on Administration & Management of Internal Security Agencies

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Paper: ***The Hungarian System of Reconstruction and Recovery Tasks Following Natural Disasters***

Author(s): **Jozsef Ambrusz**, National University of Public Service, Budapest, Hungary

Presenter(s): **Jozsef Ambrusz**, National University of Public Service, Budapest, Hungary

Paper: ***Recent Changes in the Authority Activities of Disaster Management in Hungary***

Author(s): **Gotthilf Schweiskhardt**, National University of Public Service, Budapest, Hungary

Presenter(s): **Gotthilf Schweiskhardt**, National University of Public Service, Budapest, Hungary

Paper: ***Hungarian – Slovak Cross Border Disaster Management Cooperation at Tactical Level***

Author(s): **Laszlo Komjathy**, National University of Public Service, Budapest, Hungary

Presenter(s): **Laszlo Komjathy**, National University of Public Service, Budapest, Hungary

Saturday, May 24, 2014

09:00–11:00

MEETING 5

WG Programme Coordinators:

Sander Pollumae, Ministry of Justice of Estonia, Tallinn, Estonia

Judit Nagy, National University of Public Service, Budapest, Hungary

Gabor Kovacs, National University of Public Service, Budapest, Hungary

Papers:

Paper: ***The Psychological Effects of Extreme Weather Conditions – The Importance of Crisis Intervention in Disaster Management***

Author(s): **Laszlo Teknos**, National University of Public Service, Budapest, Hungary

Presenter(s): **Laszlo Teknos**, National University of Public Service, Budapest, Hungary

Paper: ***Reforms of Administration of Security Agencies in Estonia***

Author(s): **Sander Pollumae**, Ministry of Justice of Estonia, Tallinn, Estonia

Presenter(s): **Sander Pollumae**, Ministry of Justice of Estonia, Tallinn, Estonia

Paper: ***Schengen: At the Borders and beyond – Past, Present and Future***

Author(s): **Zoltan Szekely**, National University of Public Service, Budapest, Hungary

Presenter(s): **Zoltan Szekely**, National University of Public Service, Budapest, Hungary

Notes

FIRE PROTECTION OF BORDER SETTLEMENTS

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Abstract

One of the main goals of Hungarian safety politics is the complete realization of human and citizens' rights as well as assuring life, property and the social safety of Hungary's inhabitants. This makes fire protection an indispensable and inseparable part of the country's safety system.

In the case of a serious incident that requires the immediate intervention of an adequately equipped organization with well-trained individuals, firemen are among the first to be alerted in the country. The argument that their activities are not limited to merely putting out fires is supported by the fact that approximately one third of their interventions involve technical rescue. Furthermore, firemen play a huge role in preventing and mitigating catastrophic events.

Each forest fire requires different technique and tools. The extent of the catastrophe determines the size and type of units that take part in containing and extinguishing the fire. In many cases the involvement of volunteers and the army is necessary along with the regular Fire Department response Units. However its very important to have knowledgeable and well-trained personnel in command. Its imperative to provide the fire fighters with carrier vehicles appropriate logistics and equipment. During extinguishing, the nature of the terrain determines whether or not the fire trucks can be deployed.

Quite often water cannons can only be used from the edge of the forest or along the road. In such cases when vehicles are unable to approach the site due to inaccessible terrains fire fighters are forced to get to the fire on foot. The difficult terrains pose dangerous and challenging conditions, especially when firefighters have to wear the same protective heavy gear as they do in conventional circumstances.

Points of practitioners

- This article gives an overview of the present situation about the Hungarian – Slovak border cooperation;
- It raises the present problems of the cooperation and gives suggestions for the higher effectiveness;
- It helps to develop bilateral cooperation and prepare agreements between neighbour countries;
- The given suggestions can be a handbook for examining the quality of other cooperation.

Keywords: firefighting, firemen, safety, help, forest fire, fire fighter, danger, safety equipment, water.

Introduction

Thanks to the permanent changes of our days, security, as a value category has also changed. The National Security Strategy has listed all the factors that pose a risk to our security and has outlined the directions and measures, which can guarantee the safety of the country and its citizens. Our country, as a response to these threats operates a complex security system; the main pillars of this system are the fire stations. [1]

The road transport of dangerous substances is one of the greatest challenges firemen will have to face in the near future, that is, the mobility of the source of danger exposes such transport to several interacting risk factors. Transporting dangerous substances is especially risky in that part of the thirty one thousand kilometres long Hungarian public road network that is not easy to restrict and around specifically sensitive locations such as settlements, dangerous factories, and industrial sites. From the starting point of Hungary's geographical location as well as from professional experience, analyses and accessible databases, it was possible to establish the majority of risk factors for potentially dangerous influences both in the country and across its borders. However, we should also consider carrying out the following tasks: increasing the efficiency of risk analyses and prognoses, tracking dangerous transports, and closely examining the possibility of tighter cooperation with the Hungarian army's chemicals detection unit [2]. This latest one can be used also for supporting other military operations like managing injured soldiers in the battle fields [3].

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According to the statistics approximately one third to one fourth of firefighting interventions in the country are in fact technical rescues; the majority of them are responses to first or second level special emergency alerts. In most of these cases firemen have to deal with the consequences of traffic accidents and damage caused by water or storms.

Methodology

Author used basically the public data (prepared for the general information of the public) provided by the National Directorate General for Disaster Management of the Ministry of the Interior (MI NDGDM), National Statistical Data. Author used his own developed method to calculate the travel time between fire alarm and starting intervention. Furthermore author used also the specialist literature that is rather limited in this field.

1. Fire protection of Hungarian – Slovak border: research and results

The statistics further show that more than half of all fires occur outdoors, more than fifty per cent of which are caused by dead leaves, reeds, trash or weeds catching fire. Dealing with the above mentioned types of incidents does generally not require a specifically high level of technical or professional preparedness. In order to significantly reduce the workload and financial burden of professional firefighting units, these interventions could be carried out by voluntary firemen [4].

For a better understanding of the Hungarian fire protection situation we need to take a short look into its past. The local administration law [5] (no.65) from 1990, did not list the fire protection of settlements as an obligatory task and it offered no normative support for its execution. The law no.20– the so-called jurisdiction law [6] – from year 1991, addressed this problem by obliging local communities to apply the services of professional firefighting units stationed within its borders when the performance of firefighting and technical rescue duties is required. Professional firemen should thus intervene not only in their own settlements, but in the entire territory of a given local community. The abovementioned regulation was later included in the fire protection law (no. 31) from 1996.

At the present time there are 105 professional fire-fighting units in Hungary, normatively supported by the budget, performing firefighting and technical rescue duties within the territory they are primarily assigned to. By analysing data about their operation during the last twenty years we can observe a gradual increase in the number of incidents: while firemen were called to intervene 34,005 times in 1994, they were alerted 51,793 times in 2004 and 55,289 times in the first half of year 2010 [7]! The number of interventions had thus grown by almost 70%, whilst the number of firemen taking part in them stagnated. I believe increasing the number of professional firemen and setting up new stations and patrols is one of the ways to reduce excessive workloads and to make fire protection more effective.

Professional firefighting units should perform tasks in the radius of 20-25 kilometres in order to reach the location of the incident within 25 minutes, as prescribed by regulations [8]. Given Hungary's settlement structure, population density and traffic circumstances the country would require around 200-220 firefighting units ready to intervene at any time. Naturally, I still support the application of the aforementioned local firefighting units as well as the activities of voluntary firemen who could contribute to a faster start of rescue operations which may even result in the fire being put out completely.

We could enhance the level of fire safety in the country by offering a central support to areas – so called blank spots – with an inadequate fire protection system. At least two patrols and 15-20 voluntary firefighting associations should be introduced in each of them, depending on the number of settlements. Complementary local activities would further improve the fire protection system as voluntary firemen – now under the wing of local communities – carry out around 10 per cent of yearly interventions. From the second half of the year 1996 on voluntary firemen started operating on a specifically assigned territory and in 1998 this regulation was inserted into the applicable law.

Compared to other EU countries Hungary has a strikingly high proportion of fires per number of inhabitants. For example, the proportion is two times higher than in Austria. The main causes for such statistics are ignorance, carelessness and first and foremost a low level of sense of possession. The average time elapsed between the alert and arrival to the scene of a fire is among the worst in EU. As the time needed to alert the firefighters is rather difficult to influence, the focus ought to be on reducing the time needed to reach the scene, which includes

reducing the distance firefighting units have to cover to arrive there. In average Hungarian firemen need 34 kilometres and 36 minutes to show up at the scene of a fire. This is due to the fact that there are not more than 105 professional and 68 local community firefighting units (173 in total) obliged to assure fire protection of almost 3,100 Hungarian settlements. The average time of arrival in southern and eastern countries is from 8-10 to 12 minutes.

The primary reason Hungary is trailing behind the aforementioned countries is the system between 1948 and 1990 when the number of operational firefighting units dropped to the one fifth of their previous number. In 1948 there were almost 2,000 various firefighting units, today the number is more than ten times lower. Secondly, current situation is also a result of the 1990-1996 period when, despite the change of the system, neither state nor local communities managed to deliver significant improvements of Hungary's fire protection. According to the paragraph 8 of the local administration law number 65 from 1990 fire protection was an optional task of local communities, whilst law number 20 from 1991 made this task obligatory only for communities with professional firefighting units. As neither the state nor legislature supported the operation and development of voluntary firefighting units, their number started to decrease drastically. As a result the efficiency of fire protection in smaller settlements further deteriorated.

In April 1996 the parliament passed a law on fire protection and technical rescue, the law number 31 in 1996. In principle, this legal act put firefighting units into the hands of local communities, yet their management and financing did not reach the expected level. The law in question has enabled the establishment of public voluntary firefighting units. As of July 1996 twenty-six such units – as a part of the experiment – started operating on so called “blank spots” and as of 1st January 1998 they were able to perform firefighting and technical rescue duties independently based on the law signed by interior minister. By 1999 voluntary firemen were already carrying out ten 10 per cents of interventions. The number of such firefighting units grew to 39 by January 2002 and reached number 46 by January 2004.

Right now there are 105 professional firefighting units in Hungary. Their operational plans list the settlements that cannot be reached in twenty-five minutes. Patrols should therefore be stationed in those of the above mentioned settlements from which they would be able to control nearby voluntary units. Firefighting units will get physically closer to the inhabitants, which will help enhance the level of the fire protection without representing an excessive financial burden.

It would be necessary to agree on whether the local community can provide for the stationing (a building with two storage rooms and a social room) of a new patrol. In this respect it would be reasonable to apply for regional funds. Furthermore, it needs to be examined what kind of fire protection solution would be the most cost-efficient in the case of so called blank spots.

There are nine professional firefighting units in Borsod-Abaúj-Zemplén county, one of the biggest Hungarian counties and one of those with the highest number of settlements. The territory those units operate on consists of 360 settlements (Encs 78, Kazincbarcika 46, Mezőkövesd 30, Miskolc 35, Ózd 29, Sátoraljaújhely 48, Szendrő 36, Szerencs 32, Tiszaújváros 29). 177 of the settlements the firefighting units are responsible for can in average not be reached in less than twenty-four minutes, i.e., those settlements do not enjoy an adequate fire protection [9]. As can be seen on the table below, 34 out of 78 settlements on the territory in the jurisdiction of the professional firefighting unit from Encs cannot be reached in less than twenty-five minutes [10], not even considering the additional two minutes between receiving the alert and actually getting on the way.

As can be seen on the table below, 33 out of 48 settlements on the territory in the jurisdiction of the professional firefighting unit from Sátoraljaújhely cannot be reached in less than twenty-five minutes [10], not even considering the additional two minutes between receiving the alert and actually getting on the way.

In the county there is no local government fire station, so the quickest results could be achieved by creating fire posts (e.g. Gönc, Tokaj.). In case of the fire stations responsible for the most settlements (Encs, Sátoraljaújhely) it would be reasonable to consider the possibility of a bilateral international co-operation as well. Since start of the research Encs and Sátoraljaújhely region of two new stations were handed over in Gönc and Pácin, to be improving the accessibility of the surrounding communities.

In the area of fire extinguishing and rescue we have to try to get the official fire stations of the area and the interested parties, with the help of the county directorates to sign a bilateral, international joint rescue agreement that would be beneficial for everybody.

So in the examined area of the Slovak-Hungarian border it could be the official, Hungarian fire stations and the local government fire stations of Záhony, Sátoraljajújhely, Encs, Szendrő, Kazincbarcika, Ózd, Salgótarján, Balassagyarmat, Vác, Esztergom, Nyergesújfalu, Komárom, Győr, Mosonmagyaróvár that could be in touch on a daily basis with the fire stations located on the other side of the border of the following places: Kráľovský Chlmec, Čaňa, Moldava nad Bodvou, Tornaľa, Filákovo, Lučenec, Veľký Krtíš, Šahy, Štúrovo, Komárno, Veľký Meder, Dunajská Streda, Šamorín. For example the fire brigade of Sátoraljajújhely could reach 21 places in less than 25 minutes on the other side of the border. And, the fire brigade of Kráľovský Chlmec could help in the villages of the Bodroghöz region.

The co-operation would be stimulating for both parties and could improve their professional experiences and human relations as well. Firefighting without borders could be achieved. Firefighting beyond the borders should be considered when making the Operation plans.

Table 1. Settlements belonging under the Encs and Sátoraljajújhely Fire Station, which can be reached in more than 25 minutes. Source: author's data

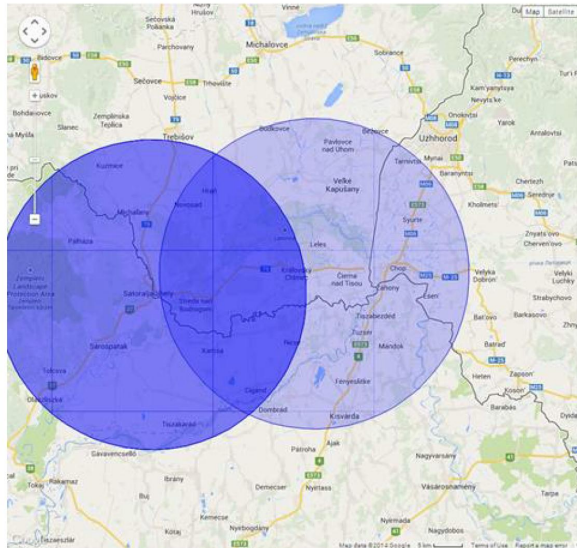
Fire Station Encs	Settlements	Distance (km)	Journey time (min)
1.	Abaujjak	20	26+2
2.	Abaujzsolnok	20	26+2
3.	Abaujvár	33,6	34+2
4.	Büttös	25,9	33+2
5.	Csenyete	21,4	31+2
6.	Alsódobosza	31,7	40+2
7.	Felsődobosza	22,7	28+2
8.	Felsővadász	26,5	33+2
9.	Gadna	22,4	28+2
10.	Gagybátor	23,2	30+2
11.	Gagyvendégi	21,1	27+2
12.	Gönc	27,4	28+2
13.	Göncruszka	20,7	26+2
14.	Hejce	21,6	26+2
15.	Hernádkérca	20,1	25+2
16.	Homrogd	31,6	37+2
17.	Kány	31,1	37+2
18.	Kékéd	37,3	38+2
19.	Kereszte	31,3	40+2
20.	Krasznokorvára	25,5	33+2
21.	Kupa	30,8	37+2
22.	Mogyoróska	24,7	29+2
23.	Monaj	28,4	35+2
24.	Nagykinizs	20,7	26+2
25.	Nyesta	23,6	29+2
26.	Pamlény	31,2	41+2
27.	Pányok	36,9	39+2
28.	Perece	27,8	34+2
29.	Régéc	25,7	30+2
30.	Selyeb	24,5	30+2
31.	Szászfa	28,3	37+2
32.	Tornyosnánai	25,1	26+2
33.	Telkibánya	36,9	39+2
34.	Zsuzta	28,8	28+2

Fire Station Sátoraljajújhely	Settlements	Distance (km)	Journey time (min)
1.	Bodrogolaszi	20	23+2
2.	Cigánd	36	46+2
3.	Erdőbánya	33	35+2
4.	Erdőhorvát	30	35+2
5.	Fülkésza	19	24+2
6.	Füzér	25	32+2
7.	Füzérkajata	22	28+2
8.	Füzérkomlós	24	29+2
9.	Füzérradvány	16	23+2
10.	Györgyartló	33	37+2
11.	Háromhuta	39	43+2
12.	Hollóháza	28	36+2
13.	Karcsa	19	25+2
14.	Kenéz	31	41+2
15.	Kishuta	20	26+2
16.	Kisrosvány	31	37+2
17.	Komlócska	35	39+2
18.	Nagyhuta	23	30+2
19.	Nagyrosvány	29	34+2
20.	Nyíri	24	30+2
21.	Olaszliszka	28	29+2
22.	Pácín	22	26+2
23.	Pusztafalu	26	31+2
24.	Ricse	37	46+2
25.	Sárazsádány	21	25+2
26.	Tiszacsémely	28	36+2
27.	Tiszakerád	27	35+2
28.	Tolcsva	26	28+2
29.	Vágáshuta	23	29+2
30.	Vámosújfal	23	29+2
31.	Viss	34	46+2
32.	Zalkod	37	50+2
33.	Zemplénasárd	45	60+2

The bilateral agreements should be extended to the area of fire and disaster prevention and the exchange of professional experiences as well.

For these purposes the International Visegrádi Fund could be helpful, among its goals we can find the improvement of the relationships between the countries of the Visegrádi fours and their regional co-operation. We have to stimulate the exchange of the gained expertise related to firefighting, the use of new fire extinguishing methods and tactics, it would also be beneficial to share the results of the developments. To achieve that, one way would be to introduce existing foreign reference materials, books in Hungary on a wider scale and to propagate the domestic references abroad, also to organize international conferences in these topics.

The regional and areal relations should be improved in co-ordinance with the government policy as well, and also in the area of fire protection; this is true not only in case of our relation with Slovakia. The cooperation could be extended areas what is hard to reach vaccinate from the air too[11]. We will see how it goes with the forest fires.



1. picture. 25 km circles of Encs and Sátoraljaújhely. Source: author

2. The challenges of extinguishing forest fires

We can clearly establish the fact that each fire-such as forest fire –has different characteristics. Depending on the nature of the fire, there has to be a broad range of method in place to battle the elements. It is the responsibility of the Fire Department-being the first unit to respond-to quickly decide on the extent of personnel and technical requirements to extinguish different type of fires [12]. The local professional fire fighter units with the help of volunteers can easily handle smaller forest fires. In the case of medium fires however, there might be a need for help from the neighbouring communities or even from the general population.



2. picture. Intensive fire at the responsible area of Sátoraljaújhely. Source: internet

The commanders of the Fire Department may request the help of the local residents, however in the event of more severe cases, the involvement of the Disaster Response Unit is absolutely necessary. At significant forest fires where it could take several days to extinguish the fire, the importance of thoughtful and careful organizing is obvious. There are major logistical issues to deal with while providing sufficient and effective environment such as financial and technical support, and well-rested units at any given time.

Another important aspect of receiving help from residents is the fact that they do not always have proper qualification and experience. To fully utilize their presence and willingness to help, they need guidance from well-trained fire fighters.

In case of devastating forest fires, residential areas are clearly in danger, therefore organizing and executing of the evacuation phase are the most important priorities. Here is the summary of deployable groups and organizations in fighting enormous forest fires:

- volunteer fire fighters
- civic defense forces
- members of professional regional fire fighters
- commanders of the Emergency Response Unit
- volunteer helpers of residents
- forestry engineers and workers

Technical Support: The resources of the ground units are the hand tools, various vehicles, fire trucks, their team and individual equipment.

Team Equipment:

- carrier vehicle,
- walkie-talkie radio,
- first aid package,
- various tools such as: hacks, picks, axes, motorized chain-saws,
- fuel.

Individual Equipment:

- personal safety equipment,
- towel,
- 2-3 litres of water

These specifications contain the basic individual and team equipment only.

Vehicles: The fire trucks have multiple purpose. They are designed to carry the response units, their equipment, and maintenance and service tools. It is quite difficult to get water into the forest from any kind of vehicle. During the deployment of fire trucks the fire fighters encounter challenging terrains therefore proper positioning of the vehicles is close to impossible. Water cannons and special chemical powders that are being used from fire trucks to extinguish house fires are difficult to deploy on mountainous terrains. Flat terrain could also pose danger as the vehicles can easily sink into sandy soil where even walking could be a challenge. To fight forest fires, water cannons can only be used at the very edge of the forest, or along roads where equipment can be safely operated [13].

To extinguish forest fires, these are the indispensable equipment:

- Jeep-type fire trucks to overcome difficult terrains,
- Water cannons,
- Water carriers,
- Miscellaneous special vehicles that are built to operate on mountainous terrain

The safety equipment of the fire fighters are the same at forest fires as any other fire. There is no such thing as light clothes or boots which means that fire fighters have to endure serious heat and vigorous physical activity. They lose about one third of their strength during deployment that they could utilize in lighter equipment. It is obvious, that due to the special firefighting environment in the face of the modern requirements aerial support is necessary even in our country. Aerial firefighting is the use of aircraft and other aerial resources to combat wildfires [14]. The types of aircraft used include fixed-wing aircraft and helicopters. Because of the present, integrated disaster management system and the rising probability of other environmental disasters besides fires, it is not logical and not possible to operate these aerial vehicles only for firefighting purposes.

Taking the characteristics and frequencies of domestic accidents into consideration helicopters have better features in exploit and effectiveness in comparison with fixed-wing aircrafts due to their multi-purpose applicability [15] A well-equipped helicopter in readiness with a well-trained crew besides the extinction of the vegetation can be capable for [16]:

- Aerial reconnaissance,
- Fire extinction of hall-type buildings,
- Relief in case of industrial and environmental disasters,
- SAR missions,
- MEDEVAC missions,
- Engineering rescue in distant or hardly accessible places,
- Aerial rescue,
- Supporting flood protection activities.

The term Helitack refers to „helicopter-delivered fire resources”, and is the system of managing and using helicopters and their crews to perform aerial firefighting and other firefighting or supporting duties like ABV protection [17] or common firefighting tactics [18] but primarily initial attack on wildfires. Helitack crews are used to attack a wildfire and gain early control of it, especially when inaccessibility would make it difficult or impossible for ground crews to respond in the same amount of time.

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