Proceedings of the 33rd European Safety and Reliability Conference (ESREL 2023) Edited by Mário P. Brito, Terje Aven, Piero Baraldi, Marko Čepin and Enrico Zio ©2023 ESREL2023 Organizers. Published by Research Publishing, Singapore. doi: 10.3850/978-981-18-8071-1_P525-cd



Involvement of the Central Administrative Authorities of the Czech Republic in Crisis Management Exercises

Katerina Goghova

Faculty of Military Leadership, University of Defence, The Czech Republic. E-mail: katerina.goghova@unob.cz

Alena Oulehlova

Faculty of Military Leadership, University of Defence, The Czech Republic. E-mail: alena.oulehlova@unob.cz

Security must be perceived as a public good, the level of which is the responsibility of public administration bodies, specifically crisis management bodies. The basis for successful crisis management is preparedness for dealing with emergencies or crisis situations. The deteriorating global security situation (war in Ukraine, the COVID-19 pandemic, climate change and its effects) is affecting individual states and their governing bodies. The situation shows the inadequate preparedness of crisis management authorities. In response to this fact, the article analyses the implementation and involvement of the central administrative authorities of the Czech Republic in exercises of crisis management bodies at the national level. On the basis of a questionnaire survey conducted with individual ministries and central administrative authorities, the article demonstrates the stereotyping of exercise topics, where exercise topics do not respond to the most significant potential risks, and identifies the main reasons for their minimal involvement in exercises, both as organisers and practitioners. The results of the analysis will serve as input data for a case study defining the requirements for each phase of the exercise - preparation, implementation and evaluation.

Keywords: Crisis management exercise, Preparedness, Central Administrative Authorities, Involvement.

1. Introduction

In recent years, the preparedness and resilience of individual states, societies and individuals to emergencies or crisis situations has been increasingly examined. Responsibility security and crisis management lies with crisis management authorities across all levels of governance, from the central level, represented by state representatives and central administrative authorities, to local government authorities in the region or municipalities. Dealing with large-scale emergencies requires cooperation between the authorities concerned - the crisis management authorities (CMAs) and the Integrated Rescue System (IRS). It is necessary to regularly verify this cooperation through exercises (Hudecek et al. 2015, Oulehlova et al. 2015). The aim of the exercise is not only to prepare the CMAs for an emergency situation, to verify the functionality and up-to-datedness of the documentation, but above all to identify deficiencies in the personnel, material, technical and organisational (management) areas, which proved to be crucial,

for example, in dealing with the COVID-19 pandemic in 2020-2021.

A literature research (Carrel 2000, Haar et al. 20013, Latiers et al. 2009, Perry 2004, Van Lakerveld et al. 2008) shows that opinions on the effectiveness of exercise vary. The actual situation brings with it a number of problems as well as negative reactions from central OCRs and municipalities. In an analysis of the reports on the evaluation of the Concept of Population Protection and the CMAs exercise plans approved by the Security Council of the State of the Czech Republic in early 2022, Goghova (2022a) pointed out the lack of participation in exercises by some CMAs, especially at the central level. An equally important problem is the stereotyping in exercises and the low variability of exercise themes, which in some cases do not correspond with the approved Threat Analysis of the Czech Republic (2015). In the Netherlands, Van Lakerveld (2008) in his study encountered ignorance and lack of training of the crisis management actors concerned in the planning of exercises. Therefore, as part of his research, he designed a professional programme with the support of the Ministry of the Interior to enhance the effectiveness of exercises in multidisciplinary teams with the assistance of expert external coaches. Not only Lakerveld et al. 2008, but other researchers (Van Laere et al. 2018, U.S. Department of Homeland Security 2020) have increasingly discussed the preparation and management of such exercises by external coaches or teams. In the Czech Republic, there is no specific institution established to provide sponsorship for crisis preparedness exercises. The lack of academic interest and fragmentation into different disciplines is how Berrens (2016) assess the field of evaluation of crisis management exercises.

The aim of the article is to analyse the implementation and involvement in CMAs exercises and the main reasons for their nonparticipation in exercises at the national level as organisers and practitioners on the basis of a questionnaire survey of individual ministries and selected other central administrative authorities of the Czech Republic. In the first part of the article, the main requirements for CMAs exercises in the Czech Republic at the central management level are defined and an overview of planned exercises is provided, which will also serve for comparison with the actual state of the situation identified by the questionnaire survey. The main practical part of the article is concerned with the results of the questionnaire survey itself, which confirmed the hypothesis of minimal participation of some ministries and other central administrative authorities and of uniformity in the topics of the exercises. The data obtained were processed using basic descriptive statistics and content analysis methods.

2. Initial Requirements for CMAs Exercises in the Czech Republic

First of all, it is necessary to state that crisis management in the Czech Republic distinguishes between exercises of the CMA and exercises of the IRS components. Both the IRS components and the CMAs have a legally established obligation to verify crisis preparedness through exercises in Act No.239/2000 Coll., on the Integrated Rescue System. Both exercises should be practiced on the basis of approved internal documentation and established procedures. The requirements for exercises of the IRS units are defined in the

directives and decrees of the Ministry of the Interior - General Directorate of Fire Rescue Service of the Czech Republic (DG FRS CR). The on the security, preparation and organization of exercises can be found in the decrees of the Ministry of the Interior (Decree 328/2001, Decree 247/2001) and the Guidelines of the DG FRS CR (Guideline 2009, Guideline 2021). The principles for the organization of CMAs exercises are defined in the instruction of the Security Policy Department of the Ministry of the Interior (Principles 2007). The document is followed by the central CMAs and also serves as a recommendation for the regional level of crisis management. According to the nature of the exercises, a distinction can be made between military exercises, which are the responsibility of the Ministry of Defense, and non-military exercises, which are the responsibility of the Ministry of the Interior. In the framework of the analysis, the article deals only with non-military exercises. The Ministry of the Interior - DG FRS CR acts as the main gestor and final assessor of the prepared type plans. Table 1 lists all the ministries and central administrative authorities concerned that are primarily responsible for the preparation of type plans (Methodological Instruction 2016). Type plans collect procedures, principles and measures for dealing with a specific type of crisis situation identified in the Threat Analysis (Threat Analysis for the Czech Republic 2015) as a hazard with an unacceptable risk, the threat of which will lead to the declaration of a state of emergency.

Table 1 Responsibilities of central administrative authorities for the preparation of type plans

Central administrative authorities	Type plan
Ministry of Transport (MoT)	-
Ministry of Finance (MoF)	Large-scale disruption of the financial and foreign exchange economy of the state
Ministery of Culture (MoC)	-
Ministery of Defense (MoD)	-
Ministry of Labour and Social Affairs (MoLSA)	-
Ministry of Regional Development (MoRD)	-

Table 1 (continued)	
Central administrative authorities	Type plan
Ministry of Industry and Trade (MIT)	Large-scale disruption of gas supply Large-scale disruption of electricity supply
Ministry of Justice (MoJ)	-
Ministry of Education, Youth and Sports (MoEYS)	-
Ministry of the Interior (MoI)	Large-scale migration wave Large-scale lawlessness (including terrorism)
Ministry of Foreign Affairs (MFA) Ministry of Health	- Epidemics – mass
(МоН)	infections of people Epiphytes – mass infections of field crops Epizootics – mass
Ministry of Agriculture (MoA)	infections of animals Large-scale disruption of food supply Special flood Large-scale disruption of drinking water supply Long-term drought
Ministry of the Environment (MoE)	Extremely high temperatures Flash flood Heavy rainfall Extreme wind Flooding Hazardous chemical spill from stationary equipment
State Material Reserve Administration (SMRA)	Large-scale disruption of oil and petroleum products supply
State Nuclear Safety Authority (SNSA)	Radiation accident
Czech Telecommunications Office (CTO)	Disruption of the functionality of major electronic communications systems
National Security Office (NSA)	Information security breach of critical information infrastructure

Methodological instruction for preparation of type plans 2016

Table 1 shows that the MoE has the most type of plans under its auspices, followed by the MoA and the MoI and the MIT. It is necessary to ask the question how is it possible that the aforementioned central authorities, i.e. the MoE and MoH, which are responsible for more than half of the total number of type plans, do not appear as the main organizers of CMAs exercises according to the analysis of exercise plans (see Table 2). The questionnaire survey carried out should have provided an answer to this question. but no completed questionnaire or relevant answer was received from the MoE through repeated questioning. According to the designated responsibilities, the MoI, as the main guarantor of the CMAs exercises, and the SMRA, which coorganizes the SOURCE exercises, and the SNSA, which co-organizes the ZONE exercises. regularly fulfil their task of organizing the exercises. Other ministries and other central administrative authorities do not act as the main organizers of CMAs exercises. The findings are confirmed by the research conducted in Oulehlova et al. (2015), which focused on crisis preparedness for energy critical infrastructure entities. The investigation found that the MIT, as the preparer of the type plan - large-scale disruption of electricity supply, did not participate in the conducted synergy exercises with public authorities, nor was it interested in the results of the conducted in-house and synergy exercises. As Oulehlova et al. (2015) point out in their article, this finding can have a very negative impact on cooperation and communication when a real hazard arises.

2.1 Content analysis of CMAs exercise plans

The CMAs exercise plan at the central level is issued on a 3-year horizon. Goghova (2022a) conducted a content analysis of the publicly available CMAs exercise plans at the central level since 2012 and their complete list is shown in Table 2. The implementation of exercises at the national and international level in 2020-2021 was affected by the COVID-19 pandemic. The overview of exercises at the national level shows the stereotype of regularly recurring exercise themes - ZONE (radiation emergency arising in connection with a radiation accident at a nuclear

power plant) and RESOURCES (practicing the coordination of requesting and providing material resources in a crisis situation through the KRIZKOM Information System, the theme changes according to the actual need).

Table 2 List of planned exercises since 2012

	Exercises to address	International
Year	non-military crisis	exercises
	situations	organised by
	Situations	NATO/EU
2012	RESOURCES 2012	CMX 2012, ML
2012	RESOURCES 2012	2012
	ZONE 2013	STEADFAST
2013	BLANIK 2013	JAZZ 2013
	RESTART 2013	JAZZ 2013
		CMX 2014
2014	RESOURCES 2014	ML 2014
		Quicksilver 2014
	ZONE 2015	CMX 2015
2015	OIL EMERGENCY	Quicksilver plus
	2015	2015
2016	RESOURCES 2016	CMX 2016
		ML 2016
2017	ZONE 2017	CMX 2017
2018	RESOURCES 2018	CMX 2018
		ML 2018
2019	ZONE 2019	CMX 2019
2020	RESOURCES 2020	ML 2020
2021	ZONE 2021	CMX 2021 SNE
2022	RESOURCES 2022	CMX 2022 SNE
		ML 2022
2023	ZONE 2023	SNE 2023
2024	RESOURCES 2024	SNE 2024
2021	12200110252021	ML 2024

Goghova 2022a

Based on the information available from the exercise plans, it was found that the MoI and the expert group of the Central Crisis Staff participated in all the above-mentioned exercises of non-military character. Other ministries and central administrative offices participated in exercises within their respective portfolios, however, it was found that out of a total of 14 ministries, six did not participate in any exercises during the period. For other central administrative offices, the observed participation was even lower with only four out of a total of 17 offices.

3. Questionnaire Survey

The information found in the publicly available exercise plans and their detailed analysis (Goghova 2022a) led to a more detailed

examination of the real state of involvement of all ministries and selected other central administrative authorities in CMAs exercises. The aim was to find out the real state of involvement of each ministry and other central administrative authorities in CMAs exercises, the reasons and motives for non-participation in the exercises, as well as the methods of evaluating the exercises and the most common shortcomings found during the exercises.

3.1 Data collection

The actual data collection was carried out between November 2022 and February 2023 through a questionnaire survey with open-ended questions. In gathering initial data, it was found that there was a relatively high turnover of people in crisis management staff positions within each institution, as those concerned often referred to their predecessors in these positions who were often already in other positions or no longer employed by the relevant central administrative authority.

Table 3 Summary table of institutions contacted and survey status

Institution	Questionnaire	Completed interview
MoI	✓	✓
MoLSA	✓	-
MoRD	-	-
MoF	\checkmark	-
MoD	\checkmark	\checkmark
MoJ	\checkmark	-
MFA	-	-
MIT	√ √	-
MoT	✓	-
MoA	\checkmark	-
MoE	-	-
MoC	-	-
МоН	✓	-
MoEYS	✓	-
SMRA	√ √	-
NUCSIS	\checkmark	-
CTU	\checkmark	\checkmark
CSO	-	-
ERU	-	-
SNSA	✓	-
NSA	✓	-

Own source

Table 3 shows a summary of all the institutions contacted and the actual return rate of the questionnaires. In three cases, the answers obtained were supplemented by semi-structured interviews with competent persons, mostly employees of the crisis management departments, who themselves expressed their willingness to comment on the answers given in the questionnaire In total, all 14 ministries were contacted, and out of a total of 17 other central administrative authorities, seven authorities were selected as the most relevant for the analysis, or whose activities are most affected by the CMAs exercise. Crisis management staff of the SMRA, SNSA, National Office for Cyber and Information Security (NUCSIS), CTU, Czech Statistical Office (CSO), Energy Regulatory Office (ERU), SNSA and NSA were contacted. Unfortunately, no feedback was received from four ministries and two other central administrative authorities. Crisis management staff were contacted again and information was requested via web forms, mailboxes in accordance with Act No. 106/1999 Coll., on free access to information.

3.2 Results and discussion

In the questionnaire, the crisis management (security) department staff answered a total of 17 open-ended questions, so that they had sufficient space to comment on each question according to their own opinion without limitations. For the purpose of the initial analysis, five key questions were selected.

The key ministries and other central administrative authorities, which are the main subjects of most of the type plans based on the Threat Analysis of the Czech Republic (2015), were able to obtain relevant information about specific exercises, the method and form of evaluation and, last but not least, their own observations about the weaknesses identified during the exercises and positive feedback. From the responses so far, it was firstly noted that some institutions do not distinguish between different types of exercises. They confuse CMAs exercises and IRS exercises (tactical and verification) and also consider building evacuation exercises as CMAs exercises within the framework of fire protection, which can be considered as a significant shortcoming. Thus, in their answers, they very often confused CMAs exercises with

exercises organized by the IRS e.g. Subway 2014, RAFEX 2014 (railway accident). Table 4 shows which types of exercises the institution has participated in over the last ten years (national X international), and if it has participated in national exercises, whether in the role of organizer or only in the role of trainer. The results identified are quite alarming, as only three institutions - MoI, SMRA, SNSA, which are in charge of the type plans organize CMAs exercises. The remaining seven ministries and other central administrative authorities have not taken on the role of organizer in the last ten years.

Table 4 Participation in inter/national exercises of a non-military nature by the central CMAs and other central administrative authorities

Participatio CMAs exer	on in national reises	Participation in international exercies
role of organizer MoI, MoD, SMRA, SNSA	role of trainer only MoH, MoA, MoT, MIT, MoJ, MoEYS	MoF, MoLSA, CTU, NUCSIS, NSA

Own source

The majority of the surveyed institutions agreed to participate in exercises of international character such as CMX (NATO), Multi-Layer, Quicksilver, Quicksilver plus (EU). All ministries and selected other central administrative authorities - e.g. the CTU - participate in these international exercises, although not always directly active at the exercise location. A CTU official in an interview stated that their position in these international exercises is more in the 2nd or 3rd line in the so-called "on call". A similar response was received from the NUCSIS, who participate in alliance international exercises, with rather marginal or no involvement at the national level.

The investigation also determined how many persons from the workplaces dealing with crisis management issues are involved in the preparation of CMAs exercises (as a trainer). The NSA and the NUCSIS did not respond to this question. The results are summarized in Table 5, which shows that up to three persons are involved in the preparation, the most common value was

two crisis management personnel. Logically, the highest value was recorded for the MoI, where the number is around 17-18 persons.

Table 5 Number of staffs involved in the preparation of the exercise

Range	Frequency	Percent
<3 persor	8	61,54
3<5 persor	n 2	15,38
5<10 persor	n 2	15,38
<20 persor	n 1	7,69
Total	13	100,00

Own source

The form of evaluation of the exercise was also studied. Most of the institutions agreed that the evaluation is done in written form, which includes both open and closed questions. These evaluation reports are usually completed by the evaluation teams, who then meet in an oral session where the individual points are discussed and further presented to the exercise facilitator (government and working bodies). However, there is no single evaluation form that ensures measurable and comparable results. The problem inconsistent evaluation reports encountered by Goghova (2022b) in her article, in which the different approaches were compared also abroad and the models of the United States of America and Sweden were selected as a suitable model for the Czech Republic (FEMA 2022, MBA Swedish Civil Contingencies Agency 2011)

The Central level CMAs agree that in the last three years, the Covid-19 pandemic has affected the conduct of CMAs exercises, as there is no need to organize exercises in a situation where a state of emergency is declared. However, they themselves admit that in the course of dealing with the pandemic, they have observed many shortcomings, whether in communication flows, logistics of materials, or, for example, in the health sector, the impossibility of direct management of health service providers from the central administrative level. deficiencies were then cited in the questionnaires. They agreed, among other things, on the impenetrability of technological systems, time

delays, the low number of persons involved in exercises (very often it is the same persons over and over again), and the related staff shortage in the crisis management departments, the insufficient number of persons authorized to get acquainted with classified information up to the "secret" level. On the other hand, the crisis management staff agreed in their answers that they see the exercise as one of the effective ways to test, above all, the communication between the individual practitioners, their cooperation and the functionality of the systems.

3. Conclusion

The first part of the article summarized the current information on the baseline requirements for CMAs exercises in the Czech Republic. A comparison was made between the type plans based on the Threat Analysis (2015) and the published exercise plans since 2012. The comparative analysis revealed a significant discrepancy in the identified responsibilities of each type plan and in the planned exercises. Only three institutions - MoI, SMRA SNSA regularly organize CMAs exercises. The other seven ministries and other central administrative authorities have not organized any CMAs exercises since 2012 to prepare for threats according to their departmental type plans. The questionnaire survey showed that two persons from the crisis management department prepare for exercises most often. All institutions interviewed agreed on the method of exercise evaluation, which is in written form and is always carried out by an evaluation team and then sent to the DG for review and further evaluation. However, this method of evaluation is not measurable and comparable in any way.

When the questionnaire survey was carried out, some ministries and central administrative authorities were found to be reluctant to communicate and comment on the subject from the outset. The most responsive behavior was observed among the staff of the MoI, MoD, MoH, SMRA and SNSA. In fact, these are mainly the offices that most frequently organize the RESOURCE and ZONE exercises, both of which are held every two years. Other national CMAs exercises that have taken place in the last ten years have been Restart, Oil Emergency, Defense, Active Shooter and Blanik. However, none of the exercises mentioned above are regularly repeated

and only five institutions out of 15 respondents mentioned their organization in their questionnaires.

The results of the questionnaire survey confirmed the minimal involvement of some ministries and other central administrative authorities in CMAs exercises. The investigation did not identify the primary reasons for their noninvolvement in the exercises and the reasons why they do not organize the exercises. For this reason, the next step will require direct face-toface interviews with the involved crisis management personnel at the individual institutions.

References

- Beerens, R. and H. Tehler. (2016). Scoping the field of disaster exercise evaluation A literature overview and analysis. *International Journal of Disaster Risk Reduction*, vol. 19, pp. 413-446.
- Carrel, L. (2000). Training Civil Servants for Crisis Management. *Journal of Contingencies and Crisis Management 8*, no. 4 (December 1, 2000): 192–96. https://doi.org/10.1111/1468-5973.00139.
- Czech. Act No. 239/2000 Coll., on Integrated Rescue System and Amendments to Certain Acts.
- Czech. Decree No. 328/2001 Coll., of Ministry of Interior on Particulars of Integrated Rescue System Securement
- Czech. Decree No. 247/2001 Coll., of Ministry of Interior on Organization and Operation of Fire Rescue Units.
- Czech (2016). Methodological instruction for preparation of type plans. In: MV DG Fire Brigade of the Czech Republic, 2016, number 369.
- Czech (2009). The Guidelines of the Directorate General of the Fire and Rescue Service of the Czech Republic of the day 3rd February 2009, which Establishes the Procedure for the Preparation and Execution of Testing and Tactical Exercises. In: Collection of Internal Acts of DG FRS CR. Prague, No. 7. Available at: https://www.hzscr.cz.pokyn-7-2009-z-3-2-1-pdf
- Czech (2021). The Guidelines of the Directorate General of the Fire and Rescue Service of the Czech Republic of the 9th February 2021 which Establishes the Basic Focus of the Regular Training of Fire Rescue Units and Members of the Fire Rescue Service of the Czech Republic. In: Collection of Internal Acts of DG FRS CR. The Czech Republic, No. 4. Available at: https://www.hzscr.cz/clanek/zakladni-zamereni-odborne-pripravy.aspx
- Department of Security Policy of the Ministry of the Interior. (2007). Principles for the preparation and

- execution of exercises of crisis management bodies of the Czech Republic. Prague, 2007. Available at: https://www.krizport.cz/aktualnisituace/aktuality/zasady-pro-pripravu-provedenicviceni-organu-krizoveho-rizeni-ceske
- FEMA. (2020). Homeland Security Exercise and Evaluation Program (HSEEP). USA: U.S. Department of Homeland Security, 2020.
- Goghova, K. (2022a). Analysis of crisis preparedness through the exercises of crisis management bodies. In: 16th PhD Conference Proceedings: New Approaches to State Security Assurance. Brno: University of Defence, 2022, pp. 54-60. ISBN 978-80-7582-453-0.
- Goghova, K. (2022b). Comparison of Selected National Approaches to Crisis Management Authorities 'Exercises. In: 40th IBIMA Conference on 23-24 November 2022 [online]. USA, 2022. ISSN 2767-9640
- Haar, S. V. D., M. Segers, and, K. A. Jehn. (2013). Measuring the effectiveness of emergency management teams: scale development and validation. *International Journal of Emergency Management*, pp. 258.
- Hudecek, T., J. Juránek, and J. Pejcoch. (2015). Blackout 2014 Exercise – Prague, the Capital of the Czech Republic. J. Disaster Res., Vol.10, pp. 270-275.
- Latiers, M. and J. M. Jacques. (2009). Emergency and crisis exercises: methodology for understanding safety dimensions. *International Journal of Emergency Management*, 6(1), 73.
- Oulehlova, A., H. Malachova, O. Svoboda, and J. Urbanek. (2015). Preparedness of Critical Infrastructure Subjects in Energy Sector for Crisis Situations. Safety and Reliability of Complex Engineered System.
- Perry, R. W. (2004). Disaster Exercise Outcomes for Professional Emergency Personnel and Citizen Volunteers. *Journal of Contingencies and Crisis Management 12*, pp. 64–75.
- Van Laere, J., and J. Lindblom. (2019). Cultivating a Longitudinal Learning Process through Recurring Crisis Management Training Exercises in Twelve Swedish Municipalities. *Journal of Contingencies* and Crisis Management 27, pp 38–49.
- Van Lakerveld, J.A., S. Van Der Haar, and S. Wartna. (2008) The Professional Development of Planners, Developers and Managers of Crisis Team Exercises. *International Journal of Emergency Management* 5, pp. 209.
- Swedish Civil Contingencies Agency (MSB) [online]. (2019). Karlstad: Swedish Government. Available at: https://www.msb.se/en