

A concept for inter-organizational crisis management exercises

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ABSTRACT

A large inter-organizational Swedish crisis management exercise was carried out during two months in 2011. It was unique in the sense that it combined both short-term and long-term crisis management involving more than 60 organizations and 6000 participants. This has never been done before in this context and therefore required an elaborated and sophisticated exercise concept. The purpose of this paper is to present the concept of the exercise as well as lessons learned about the concept and the Swedish crisis management system. The exercise was composed of three different phases each involving different methods with respect to exercising and evaluating effective and efficient crisis management. The general conclusion is that the exercise enabled analyzes and handling of both short-term and long-term crisis management. This implies that the exercise concept could be of great use in Sweden and other countries where emergencies call for cooperation between numerous distributed organizations.

Keywords

Crisis management, exercise, consequences, coordination, cooperation.

INTRODUCTION

The Fukushima nuclear incident, the Icelandic ash cloud, the bombing and shooting in Norway and several other events during recent years have strikingly illustrated the difficulty, but also necessity, for society to be well-prepared for emergencies and crisis. In this context, exercises provide vital means to enhance a societal emergency preparedness capability and create a platform for preventive and preparatory efforts. Over recent years, many different capabilities and scenarios have been exercised internationally, nationally and regionally. However, there are few examples of exercises that run for an extended period of time and deals with long-term consequences. During the spring of 2011, a crisis management exercise took place in Sweden, which lasted for more than two months. It was the largest Swedish joint national crisis management exercise ever. It comprised two Swedish large exercise series, i.e. joint national coordination exercise series (SAMÖ) and nuclear power emergency exercise series (KKÖ). This exercise, denoted SAMÖ-KKÖ 2011, is unique due to the strong focus on combining short-term and long-term crisis management. In total, the exercise required participation from more than 6000 people from approximately 60 organizations. They represented different societal sectors, many that had never or seldom exercised together. The exercise was arranged by the Swedish civil contingencies agency and the county administrative board of Kalmar with the aim to improve the Swedish society's ability to deal with a nuclear disaster on all different societal levels taking into account both short- and long-term consequences. Since this has never been done before, a new concept for inter-organizational crises management exercises had to be developed.

The Swedish crisis management system

Swedish crisis management is primarily based on the principle of distributed responsibility. This means that whoever is responsible for an activity in an everyday setting should maintain that corresponding responsibility, as well as initiating cross-sectorial cooperation, during major emergencies. The responsibility for crisis management is divided into three levels, i.e. national, regional and local. One government agency, i.e. the civil contingencies agency (MSB), is responsible for supporting coordination of various stakeholders. This means

that there is no single governmental agency in command; the crises management system is based on cooperation and coordination of different stakeholders and a key activity to ensure coordination is to conduct exercises. There are numerous parallel series of exercises being planned, conducted and evaluated that directly relates to the Swedish crisis management system. This paper focuses on SAMÖ-KKÖ 2011 where two exercises were combined into a single, gigantic, cross-sectorial and inter-organizational exercise. More explicitly, taking an inductive approach, the purpose of this paper is to give a general description of the concept on which SAMÖ-KKÖ 2011 is based on and present lessons learned in relation to crisis management and the exercise concept itself.

THE EXERCISE CONCEPT

While SAMÖ-KKÖ 2011 builds on two separate existing exercises, there were so many new issues and new topics involved that a new concept and methods had to be developed in this inter-organizational crisis management exercise. In order to include both the emergency phase as well as long-term crisis management, the exercise was divided into three different phases. The different nature of the phases called for an elaboration of different methods for carrying out the exercise in order to ensure both effective and efficient crisis management: the acute accident (Phase 1), long term crisis management (Phase 2) and lessons learned (Phase 3), see Figure 1.

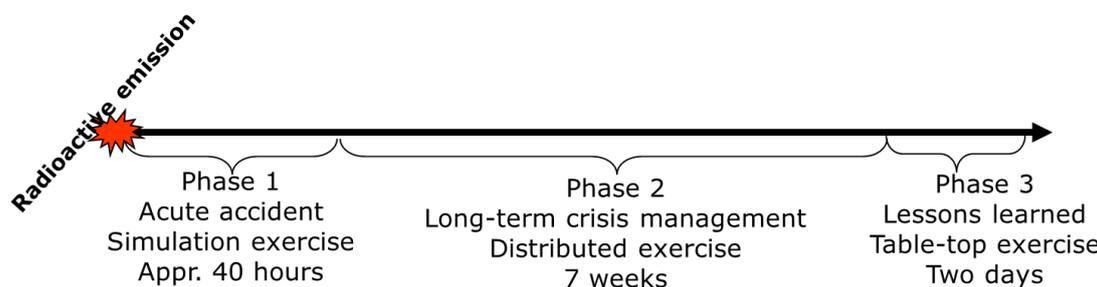


Figure 1. The three phases in the exercise

The three different phases

There were approximately 60 participating organizations in the exercise i.e. in the three different phases. While most organizations were public authorities, the private sector was also represented. All different levels of government were represented, i.e. national, regional and local level. The first phase i.e. acute accident was conducted in the beginning of February 2011 and lasted, non-stop, for approximately 40 hours. It was based on a simulation that started with problems in a nuclear power plant and lead to atomic fallout. Whereas 50 organizations took part in their ordinary working environment, i.e. a distributed exercise, the exercise control staff was centralized. The exercise control staff made different real-time injects to simulate and force different crisis management activities requiring inter-organizational cooperation. Examples of activities tested included alarm routines, coordination and crisis communication, and the organizations' abilities of perseverance. All three phases had clear starting and ending points with distinct communicated aims in order to make it clear for the participating organizations what was expected of them.

In order to analyze long-term consequences and societal impacts, Phase 2 was conducted during a longer period of time than what is usually the case in this kind of exercise. In fact, the second phase lasted for seven weeks taking place directly after the atomic fallout from the nuclear power plant. Phase 2 was a distributed exercise where the organizations mainly worked in their ordinary environments. It was carried out by means of distribution of different situational pictures and tasks that could be solved individually and additionally called upon cooperation between different organizations. The first situational picture and task were based on the final situation of Phase 1. The organizations were given two weeks to analyze the situation and provide answers to given tasks. When the first task was reported the organizations were given a new situational picture and tasks. This was repeated three times. A total of 63 organizations participated in the Phase 2. Ordinary routines and processes were to be used to carry out cooperation. The focus of the situational pictures and tasks were analyzing and describing the societal impact of the implications of the scenario. Examples of different areas included in the long-term analysis of phase 2 were electrical power supply, technical infrastructure, transportation, food supply, farming, health, medical care and safety, and security.

Phase 3 was carried out as a table-top exercise during two days. 61 organizations participated in Phase 3. The aim of this phase was to identify limitations and areas of improvements based on the results from the first and second phase. This means that the participating organizations concluded lessons learned from the exercise. Additionally ambition with Phase 3 was to gain approval for the results and recommendations among participating organizations.

Evaluation of the exercise and its three phases

There were three parallel evaluation activities. The first comprised a general evaluation of all organizations' joint ability to handle the crisis; this was carried out by the Swedish civil contingency agency (Hildingsdotter and Erixon, 2011; Karlsson and Richardsen, 2011). Second, each participating organization conducted their own evaluation according to their own agenda. This meant that each organization's evaluation was unique and it included for example emergency plans, alarm routines and other procedures. The third evaluation was carried out by an independent organization and aimed to evaluate the process with which the exercise was planned and conducted (Ericsson, 2011).

LESSONS LEARNED

The exercise has generated several valuable outcomes. Due to the emphasis of coordination, collaboration and nuclear scenario many issues can be linked to these areas. Experiences from the exercise proved to play an important role for some of the Swedish stakeholders later the spring of 2011 when the earthquake and tsunami struck Japan and the nuclear power plants in Fukushima. This included for example experiences from crisis communication and handling of social media. The lessons learned from the exercise will be presented in relation to Swedish crisis management and to the exercise concept. Lessons learned about the crisis management briefly touches upon some of the experiences that will be further analyzed and elaborated in the management system. Lessons learned about the exercise concept presents insights as how the concept was perceived by the participating organizations and how it could be further developed.

Lessons learned about crisis management

The results illustrate that participating organizations generally have an ability to handle consequences in the scenario satisfactorily; individually as well as in cooperation with others (Hildingsdotter and Erixon, 2011). They manage the courses of events both strategically and operationally. Furthermore, they maintain and restore essential societal core functions. However there is a lack of coordination between stakeholders from time to time. At some points, the division of responsibility between the stakeholders was unclear which affected the ability to coordinate activities in an effective way. Many stakeholders were too busy working intensively without ensuring that this was done in the same directions as other organizations. The exercise shows that crisis communication must be improved and worked upon well ahead of an emergency. Crisis communication was not adequate in relation to the extreme demand for immediate information. The flow of information from the public sector was too slow especially in relation to what was published in simulated social media.

Phase 1 lasted for approximately 40 hours which required rotation of staff. This is continuously exercised in the military domain however it is seldom exercised and tested in the civil society. All organizations had prepared, mainly for two-shift working, and managed to complete Phase 1. Working in shifts and access of key personnel is however a vulnerability for some stakeholders. A question that was raised is whether two-shift working is enough in this kind of situation. Future exercises will have to show this. The results from Phase 2 which were put together and analyzed during Phase 3 summarized 70 areas that need to be followed up (Karlsson and Richardsen, 2011). Each area was dedicated to at least one stakeholder who got responsibility to follow up the limitations, challenges or identified needs. Examples of areas that needs to be further analyzed is how to create, update and distribute situational pictures, routines for staff work and clarify insurance matters. In total, from all three phases, approximately 150 areas that need further attention were identified.

Lessons learned about the exercise concept

A major challenge when designing the exercise was how to include long-term crisis management. Many crisis management exercises have been carried out with various themes but no one has thoroughly incorporated the long-term perspective. Phase 2 with the different situational pictures and tasks was well perceived by the participating organizations. There was a large commitment both from the different organizations and exercise control staff. They thought it was an interesting way to work with the different challenges and they stated that it generated new knowledge about crisis management and long term consequences. In addition, they appreciated the large involvement from the different organizations as well as the representation of all different levels in the

crisis management system i.e. national, regional and local level. Furthermore, there was representation from many different sectors. As a result long-term consequences of the accident and courses of events were thoroughly analyzed. However, Phase 2 turned out to bring a lot of work for everybody involved. There was no previous experience of conducting an exercise according to phase 2 which was one reason to why it initially was difficult for organizations to grasp and manage the tasks (Ericsson, 2011). Exercise control worked intensive to collect and analyze the large quantity of information produced by the organizations in order to be able to provide new situational pictures and tasks. There were different views of whether Phase 2 should be initiated directly after Phase 1 or not. Ericsson (2011) recommends that the start of the analyze phase in future exercises should be based on what area of expertise that is exercised, which organizations that participates, how coordination is supposed to be carried out etc. There was a large commitment from the participating organizations in Phase 3 as well. The result of 150 different areas that needs further attention shows that there was a great activity in the different phases. However, the challenge to convert these in the work of change remains.

The exercise particularly Phase 2 made the organizations conscious of the need for long-term analyses and that these aspects often are neglected in exercises. Many participating organizations are positive to take part in future exercises with emphasis on analyzes. They perceive exercises with emphasis of analyzes to be a good complement to traditional exercises and states that it could play a significant role when developing the crisis management system (Ericsson, 2011).

CONCLUSION

The exercise enhanced the Swedish crisis management capability by, for example, pinpointing and enabling the development of new knowledge. It provided new knowledge about long-term societal effects in many different areas. The fact that participating organizations identified approximately 150 areas that needs further attention and improvements has both improved awareness of crisis management and the prerequisite for effective cooperation with respect to managing this kind of potentially disastrous events. The extensive output is further an example of what an exercise of this size might generate and where practitioner might be able to produce material that can constitute the basis for further research. A general conclusion is that the exercise enabled analyzes and handling of both short-term and long-term crisis management which provide valuable information to the development of the Swedish crisis management capability. This implies that the exercise concept could be of great use in Sweden and other countries where emergencies call for cooperation between numerous distributed organizations.

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