

REPORT

Evaluation Report HarbourEx15

February 2016



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WAY FORWARD AFTER HARBOUREX15

Exercises often identify deficiencies and vulnerabilities in the emergency planning of the organisations. This is also the case with HarbourEx15. All the organisations that participated in the exercise must take joint responsibility for the primary initiatives that have been proposed for national follow-up, in addition to their internal improvement measures. If the organisations only take responsibility for compensating for their own non-conformities and deficiencies, nothing will happen with what has been identified as a need for joint improvement measures. The proposals for improvement measures that are being presented here are meant to take national emergency planning one step further and are essentially aimed at the development of coordination, cooperation and communication. Improved opportunities and capabilities for cooperation, coordination and communication are central and are recurring keywords for improvement points from different evaluation reports over the last ten years, including the Gjørv Commission (Official Norwegian Report 2012:14). Major and serious incidents that occur in Oslo may readily be defined as national incidents. Thus the municipality, directorates and other professional bodies must take joint and coordinated responsibility for follow-up of the improvement initiatives across the administrative and organisational hierarchy and between organisations. The initiative for coordinated follow-up appears to lie with national actors.

The action plan has been prepared by a group composed with complementary qualities across sectors and levels. The group is of the opinion that the initiatives are decisive for the crisis management capability of those with ownership of the management of an incident. The initiatives will enable the agencies involved to more quickly establish a more identical and common understanding of the situation that has arisen. Crisis management is often about making decisions on the basis of insufficient information, and it is therefore of decisive importance that the information available is received by decision-makers quickly and efficiently. The actors have a joint responsibility for saving lives. The initiatives are specifically aimed at improving the mechanisms that make the authorities more capable of safeguarding the population and the critical infrastructure that affects life and health. All levels across the sectors must take responsibility for ensuring that the action plan is implemented and that the effect goals are achieved. The proposed initiatives have

emerged after solid and close cooperation across sectors and levels, and DSB would like to greatly thank those involved in the work.

The Way Forward process has resulted in the following nine proposed initiatives:

Common situation overview for the emergency communications centres

Initiative: The 11X Forum prepares recommendations for situation reporting across sectors and levels (viewed in conjunction with the Emergency Communications Project with co-location that is to be completed in 2022).

Effect: A common situation overview has consequences for all levels. Faster and more readily available updates will provide a common situation overview that will contribute to the right resource at the right time saving lives.

Responsibility: 11X Forum and Oslo Police District
Deadline: Mid-2016

Common situation overview for the Incident Commander's Command Centre (ILKO)

Initiative: Operative Leadership Forum (OLF) in Oslo takes a closer look at and prepares recommendations for how work at ILKO can be better organised.

Effect: Different timelines result in different situation overviews being communicated. In order for interaction at ILKO to be optimal, a common situation overview is essential. A review of the routines and organisation, as well as an evaluation of the tasks of the firefighting commander could provide a better basis for coordination at the incident site. The firefighting commander must be strengthened, so that excessive work pressure does not make it difficult to obtain correct information, and communicate this information to the police incident commander.

Responsibility: Operative Leadership Forum (OLF), Oslo Fire and Rescue Department

Deadline: Mid-2016

Information sharing and reporting to Rescue Management

Initiative: Optimise the relationship between the Rescue Management and the Operations Centre.

Effect: The operations centre spent a lot of time on keeping the Rescue Management updated. The resources must be used such that they are not at the expense of the work of the operations centre, but

rather enable Rescue Management to make decisions and be capable of maintaining the needs of its own agencies.

Responsibility: Oslo Police District

Deadline: Mid-2016

Interaction between the police and the Norwegian Public Roads Administration

Initiative: Clarification of expectations

Effect: Involvement at the right time

Responsibility: Oslo Police District and Road Traffic Centres

Deadline: Mid-2016

Liaison role

Initiative: Prepare a national guide for the liaison function.

Effect: Through the collection of routines and instructions, increase the comprehension of what it means to receive and send a liaison. Greater benefit during exercises and incidents by drawing on each other through the use of liaisons.

Responsibility: Ministry of Justice/DSB

Deadline: 1 June 2016

Population alert (acute alert)

Initiative: Part I: Acquire an SMS alert system and assess the standby function in the City of Oslo (so that the police can have a point of contact with the city, which can be responsible for quickly alerting the population. Possibly consider giving the police direct access to use of the system). Part II: Assess and possibly recommend that a system for alerting the population be acquired nationally.

Effect: Alerting the population correctly and efficiently – population receiving information quickly



on how they should relate to the situation that has arisen.

Responsibility: Part I: City of Oslo Part II: Directorate for Emergency Communication (ref. task to assess the need and systems for alerting the population).

Deadline: mid 2016 for the City of Oslo

Exchange of information between the actors

Initiative: Review of technical solutions and systems by all actors, then prepare procedures for their best possible utilisation (including assessment of the way in which situation reporting is carried out, both vertically and horizontally).

Effect: Clearer communication between the actors and levels involved, and thereby an improvement in comprehension of the situation.

Responsibility: DSB leads the working group with participation by relevant cooperating actors.

Deadline: End of 2016

Information to the population

Initiative: Clarify roles and responsibilities for communication and consider expanded use of [kriseinfo.no](#).

Effect: Uniform and coordinated information from the authorities to the population.

Responsibility: DSB together with key actors with special responsibility for information to the public, such as the police and the municipality.

Deadline: End of 2016

HNS procedures

Initiative: Revise the guide prepared by DSB "Guide for Host Nation Support in Norway".

Effect: Clearer guidelines and greater knowledge of how the scheme works.

Responsibility: DSB

Deadline: Mid-2016

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CHAPTER

01

Introduction



INTRODUCTION

HarbourEx15 was carried out at Sydhavna from 28 to 29 April 2015. The scenario for the exercise was an explosion and fire in containers with hazardous substances in the container area, fire in the fuel depot, evacuation of smoke-filled areas in parts of Oslo, and the grounding of a vessel and subsequent oil spill in Inner Oslo Fjord. The exercise was initiated to further develop competence in the area of emergency planning and rescue operations in the event of a major accident in Oslo. The exercise is the largest that has been carried out in many years, and it involved the rescue agencies, public authorities with responsibility for emergency planning, international rescue services and private actors at Sydhavna and in the City of Oslo. A total of approximately 40 organisations participated.

In order to identify risk at Sydhavna, DSB conducted a study of the level of safety at Sydhavna and the associated fuel depot in Ekebergåsen in 2012 and 2013. *“Regardless of the likelihood of serious incidents connected with the activities at Sydhavna in general, and the petroleum-related activities in particular,*

there are potentially major consequences if an accident should occur. The likelihood calculations cannot compensate for the uncertainty factors that will always be present when risk is to be assessed and managed. ...Unforeseen things can take place – and have also taken place in recent years, such as the train accident in 2010” (p. 115). As a follow-up to the report, and as an element in increasing emergency preparedness related to an incident at Sydhavna, a full-scale exercise was initiated.

The Sydhavna Report started as a scenario in the National Risk Analysis (NRA) 2014. Serious risk factors and incidents that Norwegian society should be able to prevent and manage the consequences of are described there. Hazardous substances are one of the risk areas that are presented in the report. The NRA points out the potential for major accidents in connection with both the transport of dangerous goods and stationary enterprises that manage hazardous substances. Accidents with flammable or toxic substances close to or within densely populated areas



Photo: Port of Oslo.

may have a major impact on life and health for the population around the accident site.

The more complex society becomes and the more the dependencies increase, the greater the need for cooperating, coordinating and practising together. The Sydhavna Report shows that this is an area with elevated risk, and that the location of the port close to urban development areas and infrastructure makes us vulnerable. It is therefore important and necessary to obtain an indication of what society is able to handle. The actors are practising for a worst-case scenario, knowing that if they manage to handle this, they will also be able to handle incidents that are not quite so serious.

An exercise of the scope of HarbourEx15 is enormously resource-intensive. Many people have invested a great deal of work in the planning of HarbourEx15. A full-scale exercise is well-suited for testing out routines for cooperating and coordination between actors in different sectors and at different levels. Almost 10 years have passed since the last time a

major full-scale exercise was arranged in Oslo. Then as now, the focus was on cooperating and coordination among relevant actors at several levels in a large, complex crisis. The evaluation of Exercise Oslo in 2006 showed that there was a lot of good learning associated with planning and carrying out such an exercise. The actors were given an opportunity to become better acquainted with each other's responsibilities, roles and planning. A number of learning points emerged nonetheless. The evaluation of HarbourEx15 shows that the ability to handle incidents has improved. However, there are still challenges to deal with. Therefore it is important not to stop now, but to continue to invest work and resources in following up the evaluations.

Purpose and aim

DSB is responsible for initiating and planning cross-sectoral civil exercises at the national level. The aim of these exercises is to improve crisis management capability at the national level and to identify the challenges that require a high degree of coordination across sectors. HarbourEx15 brought together three

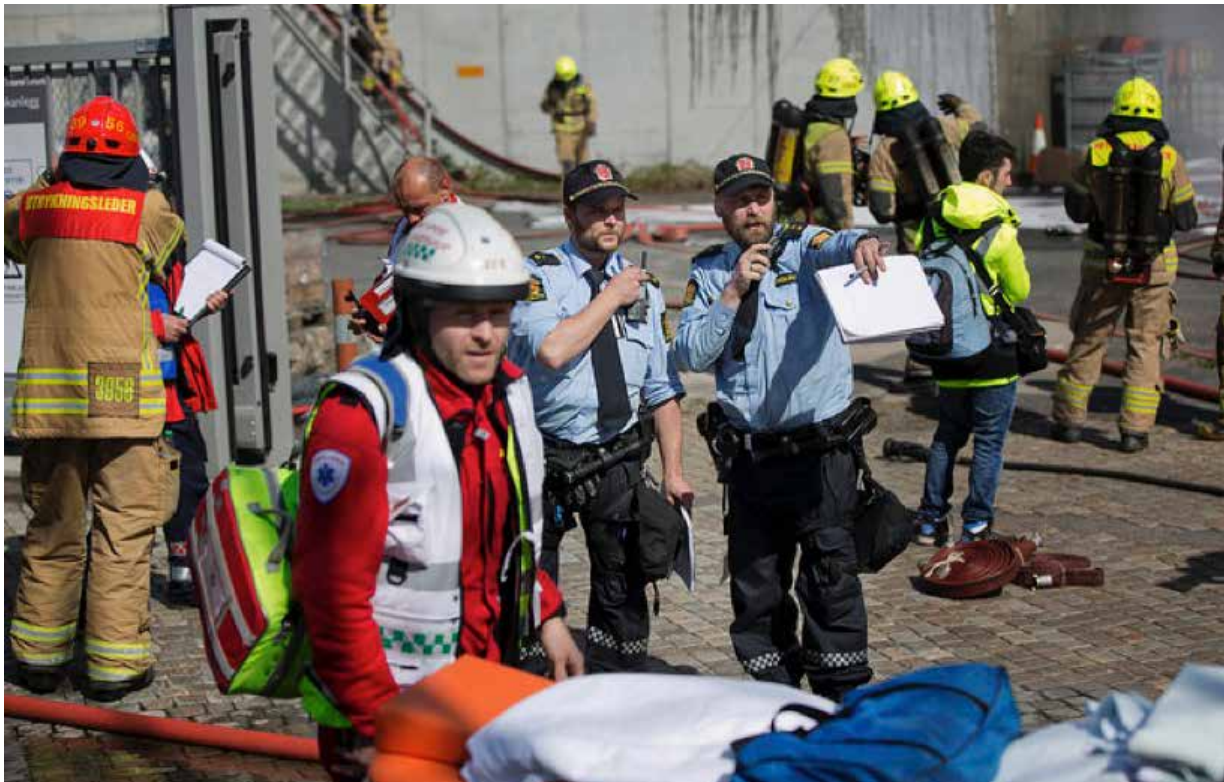


Photo: Fredrik Naumann/Felix Features.

INTRODUCTION

major national exercises into a single exercise: the National Police Directorate's rescue exercise LIV, the Norwegian Directorate of Health's national health exercise and DSB's national civil exercise.

The principal objective of the exercise was to strengthen emergency planning in order to be able to handle situations such as a major accident at Sydhavna. HarbourEx15 was to further contribute to maintaining and developing competence in emergency and rescue operations in the event of a major accident. At the same time, it is important to make use of international support in a given crisis situation under difficult conditions. The exercise made provisions for an arena in which the cooperation principle will be fully exploited.

The national exercise goals for HarbourEx15 were to look at the notification and mobilisation of the emergency response / crisis organisation, as well as the handling, management, organisation and communication between the agencies and actors involved, and crisis communication to the population with regard to:

- Effectively controlling and extinguishing the fire
- Assessing the need for and possibly initiating evacuation
- Effectively controlling and minimising the damage of acute pollution

International exercise goals:

- Giving international experts and experts from the EU Mechanism realistic challenges
- Training in the use of resources from the EU module system in an event on Norwegian soil, including:
 - Use of HNS procedures, both national and EU guidelines
 - Training in the routines for registration, reception and deployment of foreign resources as part of the national HNS
 - Training the national point of contact to the EU's ERCC, including the use of CECIS
 - Training in the use of national experts as a liaison to international resources
 - Training in interaction with international actors, related to incidents involving hazardous substances

Scenarios

The scenarios for the exercise were a major accident at the Sydhavna/Sjursjøya area in Oslo, and they involved rescue and emergency planning agencies from a tactical to a strategic level. The scenarios consisted of the following main elements:

Scenario I – an explosive fire in the fuel depot at Sydhavna

An explosion in a container with ammonium nitrate resulting in leakage from several containers with hazardous substances. The explosion results in leaks at the fuel depot, whereupon a fire ignites after approximately three hours. The fire causes major damage to the tanks and starts a long-term fire that can potentially last up to a week.

Scenario II – evacuation of the public from smoke-filled areas

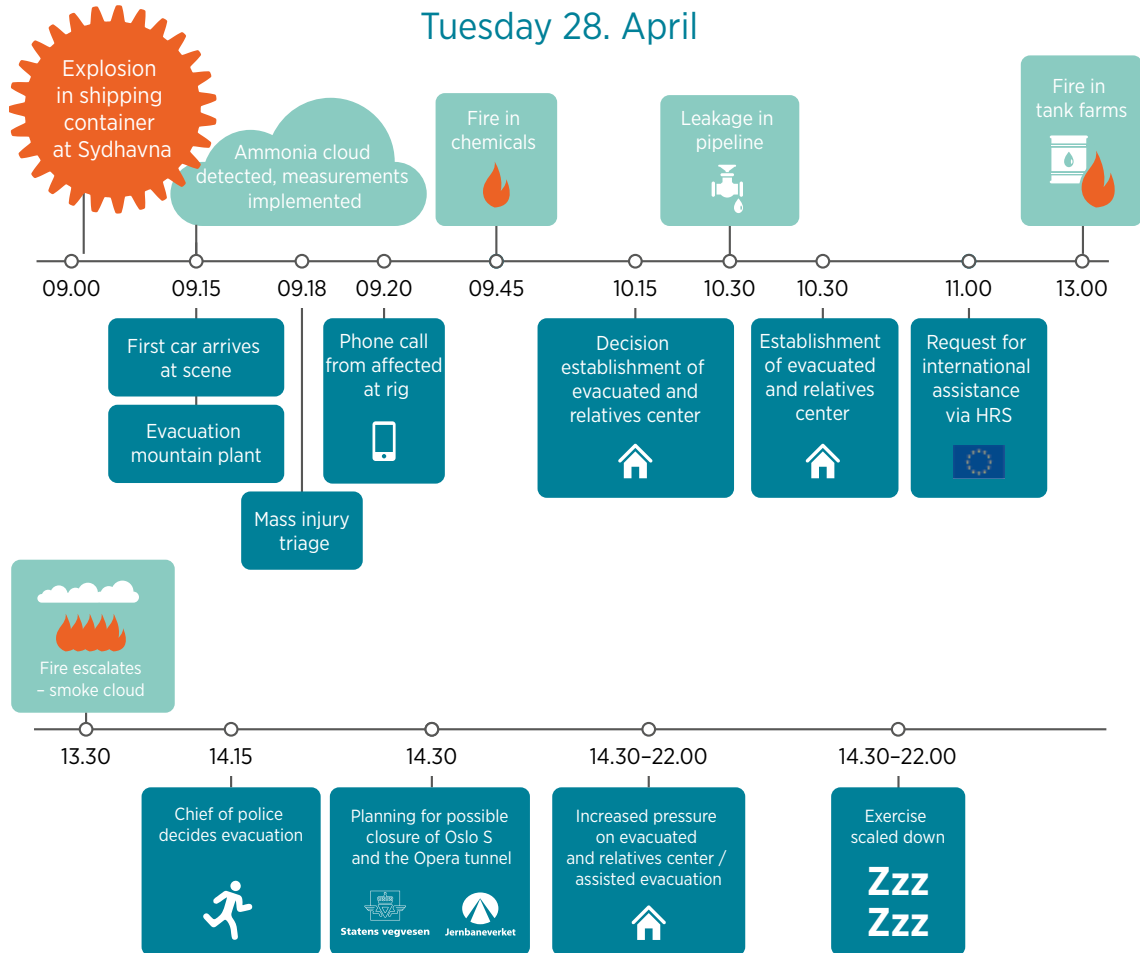
Large quantities of hazardous smoke caused by the fire at the fuel depot drifts towards central Oslo. The authorities must assess, and possibly initiate, evacuation of the population within the affected areas. This creates major challenges for the population in the area, in addition to hindering the flow of traffic on both roads and railways.

Scenario III – ship collision with subsequent oil spill in Oslo Fjord

A ship runs aground in Oslo Fjord, just outside of Sydhavna. The ship is carrying some cans of acid. The cans of acid start to leak and persons on board are injured. The grounding results in the discharge of heavy oil from the vessels involved in Inner Oslo Fjord.

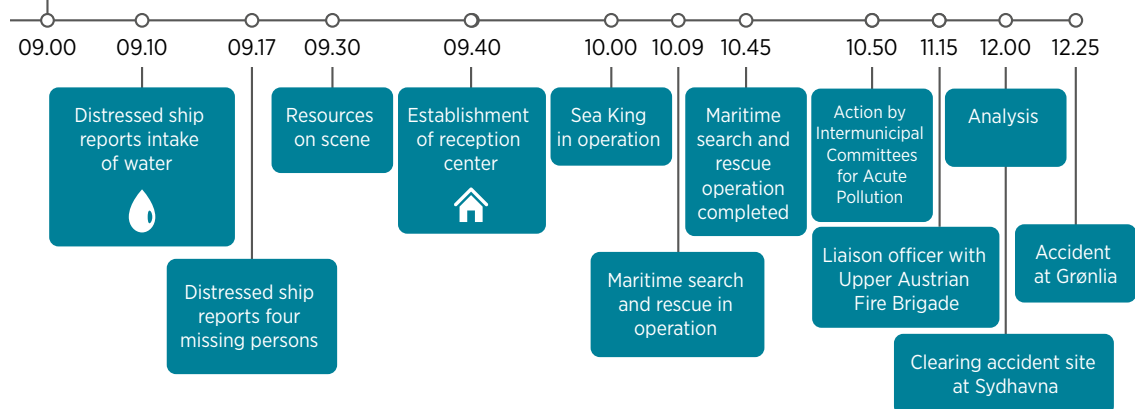
Timeline HarbourEx15

Tuesday 28. April



Distressed ship reports grounding

Wednesday 29. April



INTRODUCTION



Photo: [Fredrik Naumann/Felix Features](#).

CHAPTER

02

Evaluation, method
and data



EVALUATION, METHOD AND DATA

An evaluation is a systematic assessment of an object in accordance with defined criteria. The primary aim of an evaluation is to enable reflection and contribute to the identification of needs for future changes.

Evaluation is a process in which we document: what happened, what went well and what did not go so well? Analyse: what was the reason something went well or poorly? And assess: what can we learn from this so that the handling can be even better next time?

Each agency/enterprise had itself responsibility for making its own evaluations in accordance with their own exercise goals. This evaluation report does not assess each individual enterprise as such, it assesses the achievement of goals in accordance with the exercise's principal objectives – and is focused on cooperation and interaction between the involved actors. Each of the three principal objectives are assessed based on several independent data sources, and it is the sum total of the data that forms the basis for the evaluation's assessments.

An attempt has been made to expand and improve the data in relation to earlier exercises, and it consists primarily of the following three independent sources:

- A form for all the participating organisations with questions on the principal achievement of goals, assessment of cooperating organisations and assessment of their own response.
- Electronic questionnaire survey for all the individuals that participated in the exercise
- Report from the evaluation teams that were positioned at strategic locations to observe what happened during the exercise.

In addition, the report is based on the following sources:

- Reporting from other syndicates
- First impression collections and results from the After Action Review
- Questionnaire for the planners on the planning process, during and after the exercise
- Plans and other documentation (CIM log, media simulation website, etc.)
- Management meeting, 30 April
- Discussions and summaries from the evaluation conference on 1 and 2 September.

The data on which this report is based is extensive. It must be pointed out nevertheless that in spite of the fact that a great deal of work has been carried out to obtain solid data, there are significant weaknesses in the data that is available. This places certain limitations on the analysis, conclusions and further work. There are several reasons for this; the response rate for the form that was distributed to all the participating organisations varied, and certain organisations chose to respond by sending the evaluation syndicate's own (organisation-internal) evaluations. Good, important information emerged in general from these evaluations, but of course they did not answer all the questions in the aforementioned form. Other organisations responded with very brief answers, which makes it difficult to extract adequate information. These deficiencies have been corrected to some extent by obtaining information from alternative sources, such as logs, etc., but it has not always been possible. Certain issues have therefore been insufficiently described or omitted.

The evaluation syndicate has attempted to the greatest possible extent allowed by the data to verify information through assessing what different, independent sources say. Due to the aforementioned challenges with holes in the data, this was not always possible. As extra quality assurance, the report has therefore been distributed to all the participating organisations for consultation. This reduces the likelihood that the report contains incorrect facts or interpretations.

The results of the evaluation shall be further included in a Way Forward process. This will start up in November with a working seminar for a group of experts who can recommend initiatives and prepare proposals for an action plan based on the evaluation report. An important task in the Way Forward process is to take care of the cross-sectoral challenges and ensure that they are followed up and handled in a good way.

NR	EXERCISE	DEADLINE
1	Prepare the goals	Completed as of 28 May 2014
2	Prepare a plan for the evaluation	December 2014
3	Operationalise criteria for the exercise goals	28 January 2015
4	Obtain a complete list of the evaluation contacts	16 February 2015 Completed: 16 April 2015
5	Put the evaluation team together	16 February 2015 Completed: 16 April 2015
6	Assign observation points	1 March 2015
7	Distribute a questionnaire to the evaluation contacts in all the organisations	17 April 2015
8	Coordinated briefing in advance of the exercise	22 April 2015
9	Management meeting	30 April 2015
10	Distribute a questionnaire to all the participants	31 May 2015
11	Distribute a questionnaire to all the planners	4 May 2015
12	Feedback and reporting (incl. markers and media simulation) from the organisations	29 May 2015
13	Process and analyse data	August 2015
14	Post Exercise Discussion	1-2 February 2015
15	Complete the evaluation report	30 September 2015
16	Consultation report	October 2015
17	Way Forward seminar with expert groups	16-18 November 2015.
18	Way Forward report with conclusions and recommendations	December 2015

TABLE 1. Work schedule in the evaluation process.

CHAPTER

03

Analysis and
assessment of goal
achievement



ANALYSIS AND ASSESSMENT OF GOAL ACHIEVEMENT

In this chapter, goal achievement is assessed for each of the three principal objectives for the exercise. To the extent possible, the course of events has been reviewed chronologically and thematically, and assessments are made during the process. The evaluation syndicate points here to relevant challenges and problems, but does not propose any initiatives. The discussion concerning how the findings from the evaluation can be carried forward and translated into specific improvement initiatives is included in the Way Forward process.

The following results from the questionnaire that was distributed to all the participants in the exercise should be pointed out in the introduction:

Which cooperating organisation/actor would you praise the most for good handling?

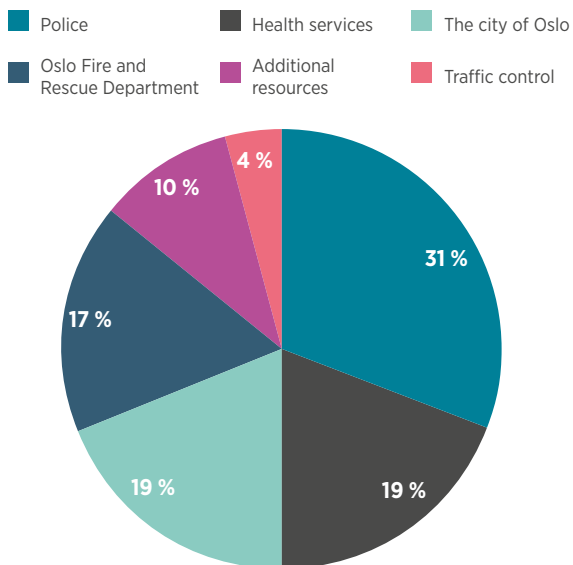


FIGURE 1. Overview of actors' management.

Which cooperating organisation/actor are you most dependent on in order to perform your own tasks?

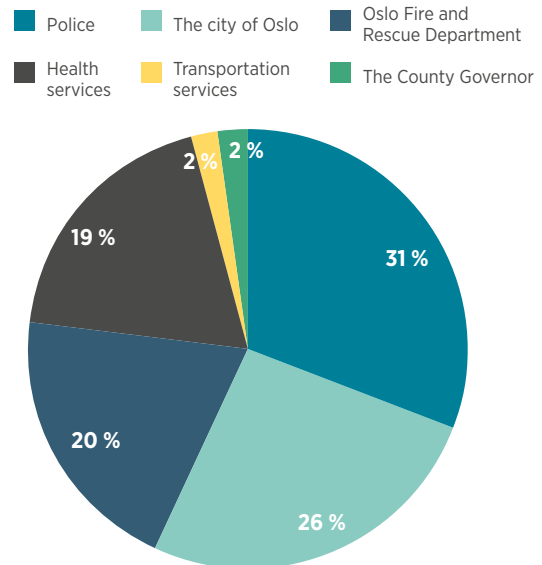


FIGURE 2. Overview of actors' mutual dependence.

3.1 TO EFFECTIVELY CONTROL AND EXTINGUISH THE FIRE

3.1.1 THE FIRST IMPORTANT MINUTES – DESCRIPTION OF ALERT

At the incident site

It is often the media that brings the news that something has happened. The media announce, but alerts require verified information through the authorities' own channels. The criteria for good effective alerts as a rule are as simple as who, what and where, and they enable the actors to mobilise appropriately.

The first alert was received by the police operations centre at 9:03 as an emergency call. The alerter was a crane operator at Sjørøya. The operations centre implemented internal alerts; for the emergency response personnel the alert came over the communication network and was announced as an accident during the initial phase. This meant that the available personnel were given an opportunity to mentally prepare for what they would be encountering at the incident site.

The 110 emergency centre was notified about the incident by a caller at 09:02 hrs. The 110 emergency centre notified the firefighting commander that “everyone at the fuel depot must evacuate to evacuation location no. 3”. The police reported yellow smoke and danger number UN 1093 to the 110 emergency centre at 09:09 hrs. The caller to 112 was the forklift operator that had caused the accident. This person was played by a firefighting controller (the person operates as a second-in-command brigadier at the Oslo Fire and Rescue Department). The forklift operator was in the “Hot Zone” and was instructed to state the facts according to what he saw. No manuscript had been prepared, but he was instructed to answer the questions asked. He was incidentally located next to the tank container with acrylonitrile (substance no. 1093), and this was the warning sign he saw when he was asked whether he saw any warning sign.

Triple notification was carried out without doing so as a conference call, i.e. one number at a time is called, and not all of them at the same time. The

factual information in the reports to 110, 112 and 113* varied. Insufficient exchange of information in connection with triple notification can result in fire, police and health authorities not having the same comprehension of the situation during the acute phase. The police reported the incident in the Fire-Ambulance-Police-Cooperation voice group at 09:10 hrs. * Exercise number set up for the Emergency Medical Communications Centre was not answered. As a result of this, the Emergency Medical Communications Centre did not receive important factual information from the caller during the initial phase.

The PO log shows that the police attempted to carry out a triple notification at 09:05 hrs by means of a predefined telephone conference in the ICCS telephone system. This was not successful because the Emergency Medical Communications Centre had chosen not to use their ordinary phone lines for the exercise. In regards to the exercise, 112 and 110 had not been informed that 113 was using special phone lines for the exercise. When the telephone conference was unsuccessful, the Oslo Fire and Rescue Department and the Emergency Medical Communications Centre were each notified by a separate phone call shortly thereafter. It is estimated that both were notified at 09:06 hrs. A conference call was attempted, but this was not possible due to technical exercise factors.

It could be ascertained immediately that the nature of the incident was such that it applied to all the emergency services, and the Fire-Ambulance-Police-Cooperation voice group could be established from the start of the incident. Fire-Ambulance-Police-Cooperation are encrypted voice groups that only the emergency services have access to. This is meant to ensure that all the personnel in various agencies could share the same situation overview before arriving at the incident site and ensure the sharing of information during the time-critical phase of the incident.

The incident commander attempted to have a safe meeting place for the emergency response personnel defined by the brigadier in the Oslo Fire and Rescue Department through Fire-Ambulance-Police-Cooperation 9. Contact was established in Fire-Ambulance-Police-Cooperation 9, but zone

ANALYSIS AND ASSESSMENT OF GOAL ACHIEVEMENT

classification and a safe meeting place were not defined by the brigadier.

The firefighting commander responded as a result of the alerting of personnel. The firefighting commander communicated both with the 110 emergency centre and his own personnel en route to the site and requisitioned a local guide/fire supervisor to the meeting place.

Initial contact with the police commander in the Fire-Ambulance-Police-Cooperation was registered at 09:12 hrs. The firefighting commander arrived at the meeting place at 09:17 hrs. Up to 50 employees had been evacuated from the container terminal then. This was reported by the Port of Oslo (VTS).

The first unit from the Agency for Fire and Rescue Services arrived at the site at 09:15 hrs. Emergency

call-out leader immediately ordered establishment of a protective spray and started life-saving measures, since people with respiratory problems were observed in the area. At 09:20 hrs, there were three units from the Agency for Fire and Rescue Services at the site.

Alerting a fire and rescue response through the 110 emergency centre functioned appropriately, but the expected triple notification of police, fire and health was not carried out according to procedure.

Role of the object owners during the acute and notification phase

The oil companies were notified by a radio announcement from personnel at Statoil at 09:01 hrs that a loud bang had been heard. At 09:07 hrs there was a new report from Statoil that smoke had been observed from the container harbour and that smoke was



Photo: Fredrik Naumann/Felix Features.

drifting in over the Sjursøya Oil Terminal. Due to this, the oil companies chose to evacuate personnel from the Sjursøya Oil Terminal to a fixed meeting place outside the area.

Statoil / the oil companies alerted the 110 emergency centre at 09:09 hrs. The Oslo Fire and Rescue Department was informed in this manner that the oil terminal and Sisterne Drift (the underground storage facility) had been evacuated. It was pointed out to the 110 emergency centre that the oil companies would receive the Agency for Fire and Rescue Services at the roundabout near the Shell building. The Agency for Fire and Rescue Services did not stop there, but drove past without making contact. There was little contact between the oil companies and the emergency services during this phase, and that made it difficult to make the right decisions for the oil companies, who experienced that they were an external actor in the incident.

Yilport's contact person was called by the 110 emergency centre and also received information about the explosion and fire at Sjursøya by text message. This notification enabled Yilport to mobilise in an appropriate manner. Radio communication was used internally at Yilport to inform Yilport's employees internally about the incident and evacuation. Everything took place according to the applicable procedures.

Dangerous goods/substances involved – what does it mean?

It was clear early on that dangerous goods/substances were involved in the incident. The 110 emergency centre informed its own personnel about the type of substance and the meeting place at 09:11 hrs. According to the 110 emergency centre, the meeting place had been clarified with the police, but uncertainties arose with regard to the defined meeting place nonetheless. Several alternatives were mentioned, such as the roundabout, kiosk and cabin.

The first deployment area was defined as the "kiosk". Contact between firefighting and the police was established and a decision was made to use an alternative access road to the central incident site. The health service was busy with "injured persons" and did not drive in together with the incident commander and firefighting commander. It appears as if time-critical information on the meeting place was

not reported/comprehended by all three emergency services.

The 110 emergency centre in Oslo is one of Norway's three expert centres for dangerous goods. Information on the type of substance, properties of the substance (fire, health and environmental risk), safety distance, hazardous area classification and worst-case scenario based on the reported substance number should be communicated from the expert centre. There will always be a certain level of uncertainty related to the information provided by a caller who is not familiar with the object. Therefore the site must be surveyed prior to implementing the final response effort. Notification in the prehospital service was received via and together with the other emergency services and functioned satisfactorily.

Akershus University Hospital was notified by the Emergency Medical Communications Centre, but notification was received 35 minutes after the accident had occurred. With a view to the fact that there is a need for shell protection of the hospital with contamination of this type, this is too late. The report contained the necessary information.

A little after 9:00 hrs, the Norwegian Institute of Public Health's National Poison Information Centre received two notices of concern from Ekebergåsen due to the build-up of smoke at Sjursøya. The reports were not specific, but the Norwegian Institute of Public Health distributed the notice internally. The report from the CBRNe centre concerning an explosion with yellow smoke, several persons with breathing difficulties, and a bus inside the area in an unclarified situation was received at approximately 09:45 hrs. The report contained information that chemicals could have been involved in the accident.

The Agency for Fire and Rescue Services is often the first to arrive at an incident site, particularly for incidents involving hazardous substances. It is the first unit at the site with its emergency call-out leader who will be the "eyes that see", and who will report the situation to the firefighting commander, who will be part of the Incident Commander's Command Centre (ILKO). It is of decisive importance to report what substances are involved, whether there are injured persons in the area, or other persons who must be evacuated in order to requisition cooperating actors such as the police and health services, but also

ANALYSIS AND ASSESSMENT OF GOAL ACHIEVEMENT

to plan what type of special equipment is required to handle the situation. The emergency call-out leader from the Agency for Fire and Rescue Services established contact with a local guide when he arrived at Sjursøya (09:16 hrs).

Gas was observed on arrival and therefore “gas cloud washing” was initiated; a measure to dilute the ammonia that leaked from another tank. The smoke diver leader at the emergency response site reported to the emergency call-out leader that there were several persons who had difficulty breathing.

It was announced over the communication network that acrylonitrile (UN 1093) was involved. It is unclear to the evaluation team whether at any time it was clear to the Incident Commander’s Command Centre what other substances and what volumes were involved. The evaluation team did not find that information on the substances that were involved was communicated well enough to and within the Incident Commander’s Command Centre. In a situation like this, in which one is dependent on each other’s assistance to handle the incident, it must be very clear to everyone what substances are involved. The risk potential and safety distances must be communicated clearly to the cooperating actors. The Agency for Fire and Rescue Services has the best prerequisites and competence to do this.

It is the task of the firefighting commander to obtain information on what hazardous substances are located at the terminal. He should thereafter distinguish between the substances that are involved in the incident and those substances that are not involved. Due to too high work pressure on the firefighting commander, he never did manage to obtain the right information, or to communicate this information to the police commander.

It appears as if a lack of knowledge about the freight documents resulted in one not being able to read the information that was available in Yilport’s documents regarding the hazardous substances in the various containers. At the same time, one must manage to identify which of these substances are leaking, and which are not. As an example of this, there was no leakage from the tank container with acrylonitrile. However, it was exposed to high temperature due to fire in a neighbouring container and did not represent a risk until after approximately two hours.

The Oslo Fire and Rescue Department’s bus functioned as the Incident Commander’s Command Centre (ILKO) and has all the necessary facilities (Internet connection, projector, maps) to provide a good overview of the situation. Boards where information can be noted on an ongoing basis and where sketches can be drawn are also good aids for ensuring clear information and avoiding that everyone asks for the same information. The evaluation team observed that the substance information and number was asked for four times before it was noted on one of the boards (approximately two hours into to the exercise). The flow of information at the Incident Commander’s Command Centre functioned poorly. This is attributed first and foremost to the fact that the firefighting commander had far too many tasks in order to perform the role in a good way. The incident commander did not receive any answer to his questions to the firefighting commander.

The members of the Incident Commander’s Command Centre (incident commander, firefighting commander and the operative health commander) were together during large parts of the response. The focus was on reporting the status and the ongoing problems (“hole in the fence”, “is the cleaning good enough”, “is it safe to drive in”, etc.). Arranging for a hole to be cut in the fence should be agreed on between the sector / emergency call-out leader and the health service at the incident site – without the question from the health service going all the way up to the operative health commander at the Incident Commander’s Command Centre to the firefighting commander and then back down to the emergency call-out leader. The Incident Commander’s Command Centre was positioned close to the incident site when the bus was initially parked.

What about traffic?

Eastern Norway Road Traffic Centre received its first formal notification from the police at 09:22 hrs. “Two major incidents at Sjursøya; truck crane with a container has overturned, a minibus with passengers rolled over. Risk of personal injuries, possible dangerous goods. The police temporarily closing E18 Mosseveien and driving in via Ormsundveien”.

Due to security considerations, however, the Road Traffic Centre had immediately started to close the entrance to the E18 Mosseveien at 09:20 hrs, when the Road Traffic Centre through its cameras

observed two police motorcycles that attempted to block the entrance. This barricade was reopened at 09:32 hrs by agreement with the police.

The Road Traffic Centre informed the Oslo Road Department (Va Os), the region's crisis team and the Directorate of Public Roads (VD) about the incident at Sjursøya at 09:33 hrs by SMS. The Department Head at the Oslo Road Department was initially informed by the media monitor at the Norwegian Public Roads Administration, Eastern Region, about a lot of smoke and emergency vehicles at Sjursøya. The crisis team was called in by the department head, and an observation phase was established. The Road Traffic Centre confirmed shortly thereafter that a minibus had overturned, but not where.

The communication advisor for the Oslo Road Department, who is also the information and media contact in the department's crisis team, was informed that there was a massive response in the direction of Sjursøya 09:09 hrs by a colleague who worked in the Bjørvika/Sydhavna area. Investigations were made immediately via the exercise website to determine whether an incident had occurred. This was confirmed. The communication advisor immediately contacted the media monitor at the Norwegian Public Roads Administration, Eastern Region. This happened at 09:15 hrs. This function is manned 24/7 by an on-duty communication advisor. The media monitor immediately contacted the Road Traffic Centre. The Road Traffic Centre announced that there had been a traffic accident on Mosseveien and that the traffic was standing still as a result of this. Thereafter the media monitor contacted the communications director at the Norwegian Public Roads Administration, Eastern Region, to provide a briefing. The media monitor also indicated that there could be a need for additional advisors linked to the media monitor line.

Notification – municipality – County Governor – Directorate – Ministry

The City of Oslo is a major actor with more notification lines than most of the organisations that were involved. Such a complex system requires good routines and clear communication lines. The City of Oslo finds reason to make its notification routines more stringent, and points out the importance of reporting according to the chain of command and that lists of the crisis management team are updated

and available through common channels. It is also important that there is redundancy for functions with authority that follow the roles.

For example, it took a fairly long time before Ruter was notified by the municipality. Ruter monitored the net and social media, and received information on the fire via these channels. In time alerts were received by the press and emergency phone line, but it was unclear in the communication whether Ruter was formally alerted and whether one was to mobilise one's own resources. The notification thus did not contain the information necessary to mobilise and implement.

The County Governor of Oslo and Akershus (FMOA) was notified by mobile phone by the Oslo Police District and the City of Oslo, not long after the accident. This was experienced as functioning well. In addition, the County Governor of Oslo and Akershus was alerted through a common emergency e-mail to the office. The alert contained enough information so that they could mobilise, while at the same time they received information through their own channels and in this manner acquired the best possible overview of the incident. The County Emergency Planning Director alerted and mobilised several staff members immediately through DSB-CIM. The County Governor of Oslo and Akershus received an alert from the Norwegian Directorate of Health at 09:45 hrs, and the Norwegian Directorate for Civil Protection (DSB) contacted the County Governor of Oslo and Akershus by phone at 09:47 hrs.

DSB became aware of the incident through the media, and after a short period of time established contact with the Emergency Support Unit of the Ministry of Justice and Public Security. A relatively quick decision was made that DSB was to facilitate coordination at the directorate level if there was need for such.

The collective rescue management was alerted by text and voice messaging in CIM. Information on the incident was provided after arrival at the police station at Grønland at 10:00 hrs.

Notification – assessment and consequences

This was an accident that started at the container harbour and not at the oil companies. It was therefore not natural for the fire service to go into

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dialogue with an object owner other than the injured party initially during the incident. Contact with the oil companies functioned well when the incident escalated to a fire in the fuel depot.

All the emergency services were alerted and arrived at the site quickly. Even if it emerges that the emergency services do not require contact with the object owners during the initial phase, previous evaluations show that the knowledge and resources of the object owners could be of great help to the emergency services, but that this was not made much use of. During this exercise, the oil companies experienced that they were set aside and not made use of as expected.

All levels, from local to national levels of the Norwegian Public Roads Administration were prepared to participate in the exercise, but received a modest role during the exercise. The fact that it took a long time and the information was sparse, may be attributed to technical exercise factors. However, it is nevertheless a paradox that should be discussed: Why did the transport sector not play a more key role in a scenario that obviously involves and challenges the sector.

It is of completely decisive importance to establish which hazardous substances are involved at an early point in time. There was an alert concerning yellow smoke, which should have triggered some interaction routines, such that it could be clarified what substances were involved. It is not until one is inside the area that one can say anything about what substances are involved. It is first and foremost the labelling of parcels that provides this information (yellow-brown smoke can, for example, be nitrous gases due to the reaction of nitric acid with organic substances). Cooperation with other actors, such as local guides and experts from the Norwegian Defence Research Establishment (FFI) did not function satisfactorily. These are persons with important technical expertise that must be involved in assessments made by the Incident Commander's Command Centre.

The health service would have been capable of implementing the treatment of patients faster if fundamental information had been available at an earlier point in time.

3.1.2 WHO DOES WHAT – DESCRIPTION AND ASSESSMENT OF RESPONSIBILITIES AND ROLES

At the incident site

The Oslo Fire and Rescue Department uses its 110 emergency centre to maintain an overview of the resources that have been assigned to the incident site and the resources for residual preparedness in the city. The 110 emergency centre has a direct communication link with the emergency call-out leader for logging. During this exercise, the Oslo Fire and Rescue Department chose to establish the Uniform Management System staff at the main fire station. (UMS, Uniform Management System –<http://www.dsb.no/en/toppmeny/Publikasjoner/2011/Tema/Veileder-om-enheltlig-ledelsessystem-ELS/>)

The distribution of responsibilities and tasks between the 110 emergency centre and the UMS staff at the Oslo Fire and Rescue Department became unclear in this situation. This made communication between the call-out units and the management more difficult.

Figure 3 on next page shows the lines of communication at the Oslo Fire and Rescue Department during the exercise. The figure that shows the normal situation must be understood such that the firefighting commander is not always involved in handling incidents, and that communication during minor incidents goes directly between the 110 emergency centre and the emergency call-out leader.

The fire chief decided to establish a staff during the exercise to practice endurance over time. The 110 emergency centre and staff did not clarify the distribution of responsibilities and tasks, and as a consequence work on identical tasks was performed in parallel at times. This entailed challenges associated with the coordination.

The Agency for Fire and Rescue Services has a great deal of responsibility at emergency response sites that contain hazardous substances, and they are responsible for ensuring an adequate level of safety for personnel from the police and health services, so that they can implement measures to safeguard life and health. In the initial phase of an incident, the personnel and the tasks that are to be handled often do not coincide. At Sydhavna, additional resources

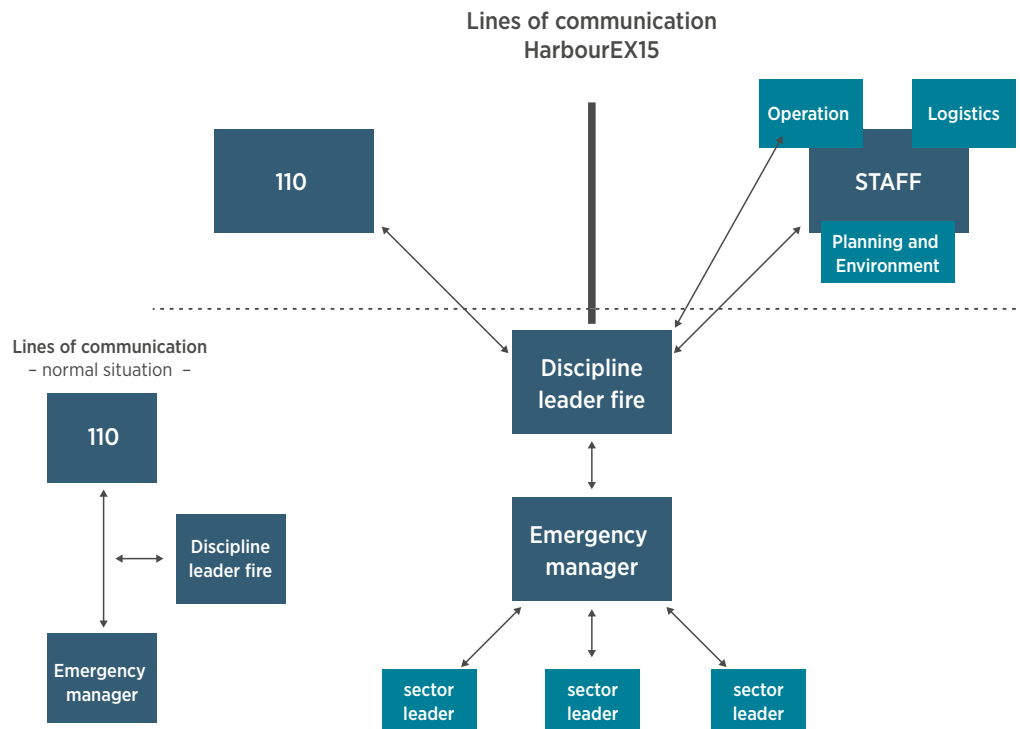


FIGURE 3. Lines of communication in Oslo fire and rescue services during the exercise.

were quickly called out from the Agency for Fire and Rescue Services. At a major incident site, and when there are sufficient resources, the Agency for Fire and Rescue Services divides up the areas that the respective units are assigned responsibility for (sectorisation). In such cases, the emergency call-out leader for each unit is assigned the role of sector leader. The sector leaders report to the first emergency call-out leader to arrive, who will have the role of a liaison between the sector leaders and the firefighting commander. This function was established at 10:00 hrs. Around this point in time, a sketch of the incident site was created, and the sectors were drawn in.

The police evaluation describes how the incident commander led the police portion of the operation through his sub-leaders and out to the emergency response personnel. The brigadier at the Oslo Fire and Rescue Department and the operative health commander were linked to the physical rescue work, and had little capacity to contribute information to the Incident Commander's Command Centre. As a

result the Incident Commander's Command Centre was somewhat reactive and the various responses had little opportunity to look forward in the operation. The police are therefore of the opinion that cooperation at the incident site did not function optimally.

The Agency for Fire and Rescue Services, which had the protective equipment to work closest to the fire and incident site, started by retrieving the injured persons. In addition, they performed a "cursory clean-up" at a temporary muster site, so that injured parties could be transported to the muster site for treatment by health personnel. The situation at the incident site was so unclear that the health service was uncertain as to whether the area was safe enough to enter to treat the injured, even if the Agency for Fire and Rescue Services gave the all clear that it was safe. Health personnel represented by a physician took over the medical responsibility at the muster site at 09:46 hrs. Some uncertainties arose for the health service with regard to the washing of patients. The lack of visible contamination

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on the patients resulted in the Oslo Fire and Rescue Department stating on false premises that “washing was not necessary”. This had major consequences for the response at the incident site, and it ruined the benefit of the exercise for the health service.

Outside the incident site

The South-Eastern Norway Regional Health Authority delegated the coordination responsibility for the specialist health services to the Director of Oslo University Hospital (OUS). Initially during the incident, there was a lack of ambulance capacity, but adequate resources gradually became available and the possibility of reinforcements from other Emergency Medical Communications Centre areas shows that considerable resources can quickly be mobilised in the area. The health trusts established RED alert at 09:18 (Oslo University Hospital) and 09:40 (Ahus Hospital) after a major accident at Sydhavna in Oslo was reported. Ahus Hospital was alerted by the Emergency Medical Communications Centre at 09:34 hrs.

The fact that Ahus Hospital was alerted later created challenges related to shell protection of the hospital. This meant that Ahus Hospital had self-evacuated, contaminated patients inside the hospital before they were given an opportunity to implement shell protection. After the exercise, clear guidelines with regard to notification were prepared internally within the hospital to ensure that shell protection is implemented at an early stage. Oslo University Hospital has already reviewed the notification routines from the Emergency Medical Communications Centre.

Diakonhjemmet and Lovisenberg hospitals also introduced RED alert, while Sykehuspartner and Sykehusapotekene established YELLOW alert. The responsibilities between the health trusts were clear, and there was a good dialogue between Akershus University Hospital and Oslo University Hospital.

The principles functioned well for the Norwegian Institute of Public Health. The head of the environmental medicine division led the crisis team, and contact with the National Poison Information Centre and the CBRNe centre was quickly established. There were some questions about the role of the health service in the City of Oslo. Normally, the Norwegian Institute of Public Health advises the municipality represented by the chief municipal

medical officer. In this situation it was the police who requested assistance from the Norwegian Institute of Public Health, not the municipality.

The Norwegian Civil Defence experienced that the principles were followed in accordance with their intention. New evacuee and family centre agreements were established between the Oslo Police District and the City of Oslo just before the exercise. This entailed new areas of responsibility for several actors. The Norwegian Civil Defence attempted to satisfy the requirement of ensuring the best possible cooperation by placing the leader for the departments that respond to the command site at the emergency response site. This was followed during the exercise.

The responsibilities, roles and cooperation between the Oslo Road Department, police and the City of Oslo were marked by little communication, and thus the responsibilities became somewhat unclear. The Norwegian Public Roads Administration had little or no contact with other agencies that were involved in the exercise, and they tried several times to get in contact with the police and the City of Oslo without success. They did not receive any questions from other agencies, except for once when they sent a map to the Emergency Planning Agency in the municipality. It was the responsibility of the Eastern Region for handling the crisis. Cooperation between the Road Traffic Centre and the police was not optimal either. There was no contact at the central level. The Directorate of Public Roads sent a status report to the National Police Directorate and reported communication challenges between the Road Traffic Centre and the police, but they did not receive any response.

Yilport's impression after the exercise is that the organisations took responsibility for what was expected of them. It was clear who had responsibility. Any changes in the responsibilities was communicated. The cooperating organisations had a clear understanding of their own role and responsibilities, and the requirement to ensure the best possible cooperation with relevant actors was satisfied.

The Agency for Fire and Rescue Services plays a major role at a contaminated incident site. They are to ensure the safety of their own personnel, save lives and limit injuries. During the initial phase of an incident, the challenges are to acquire an overview,

prioritise and distribute tasks, and to implement measures. There are many tasks to perform for the first units that arrive and experience an unclear situation.

3.1.3 SHARING INFORMATION IS ALPHA AND OMEGA – DESCRIPTION OF THE REPORTING

At the incident site

The scenario entails a complex and unclear incident site. With the firefighting commander having to deal with so many factors, the information at the Incident Commander's Command Centre became insufficient. Situation reports were provided to the 110 emergency centre at times, without the same information being provided to the police incident commander. In their evaluation, the police describe that the situation reports were logged in CIM, so that the Oslo Fire and Rescue Department at the Local Rescue Centre had more information than the police operation centre.

The firefighting commander gave the emergency call-out leader orders to sectorise the emergency response area at 09:50 hrs, and according to the Oslo Fire and Rescue Department's own procedures, the emergency call-out leader was assigned a coordinating role / liaison function for the firefighting commander. This function is called the fire liaison (LIMA), cf. the procedure.

Each sector had its own leader, and it could appear as if the role as a liaison was somewhat unknown, and thus was difficult to perform. The function is not often used in practice, which means there is less experience performing the role. The firefighting commander had to repeatedly request information that the fire liaison (LIMA) did not have, which the liaison had to return to after having contacted the proper sector leader. For example, orders were given to cool down the acrylonitrile (1093) tank, without the temperature having been measured before this was requested by the firefighting commander. Without any reference temperature, it will be difficult to register a temperature increase.

The health service had not perceived that the incident site had been divided into zones (hot, warm and cold). As a result of this, emergency response personnel without suitable protective equipment

worked too closely to the central incident site, and cooperating agencies did not have the same comprehension of the situation. The fact that the incident site was not divided into zones is a violation of the procedures.

The police confirm that the emergency services did not adequately share the same awareness of the situation, which affected the aims and priorities of the action. The police did not perceive either that divisions of the incident site into zones had been established. This created uncertainty within the police and health services with regard to how the task would be solved. It appeared as if the operative health commander and brigadier from the Agency for Fire and Rescue Services were tied up with too many tasks in their own lines, without adequately contributing important information to the Incident Commander's Command Centre, or responding to requests from the incident commander. During the acute phase, the police are dependent on information from the Oslo Fire and Rescue Department in order to manage the incident site in the best possible manner.

During the acute phase, the Oslo Fire and Rescue Department will be the provider of conditions for how the police and health service will solve their tasks. The lack of situation reporting at the tactical level among the agencies led to the situation reporting at the operational level being deficient. The incident commander made use of action cards and plans at the operational level, but when the incident commander did not receive the information he wanted from the other professional bodies, even though he requested this repeatedly, the decision-making basis and situation reporting at the operational level became insufficient.

Outside the incident site

In the initial acute phase, Akershus University Hospital received adequate information, but they were alerted too late. However, subsequently Akershus University Hospital was never notified that decontamination was not necessary. Not even the Emergency Medical Communications Centre updated Akershus University Hospital, and the emergency response manager himself had to contact the Emergency Medical Communications Centre to obtain the information. The health trusts are dependent on updated information concerning the scope and number of patients that are expected. It is very

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important that information concerning chemicals is distributed, since it is of great importance to the treatment of patients, including decontamination and a possible antidote.

Oslo University Hospital shared/distributed its reports to the Norwegian Directorate of Health (on behalf of the South-Eastern Norway Regional Health Authority), the municipality, police, county governor and others, but no corresponding reports were received from other organisations.

DSB assumed the role as a coordinator at the directorate level. Situation reports were forwarded to the Emergency Support Unit of the Ministry of Justice according to the agreed plan. These reports were compiled on the basis of reports from the County Governor of Oslo and Akershus (CGOA), Norwegian Directorate of Health, National Police Directorate and specialist units at DSB.

The County Governor of Oslo and Akershus describes it as demanding to follow up reporting. The reports from the City of Oslo were not precise enough and lacked a more general overview of the municipality. Reports from the Norwegian Directorate of Health were received late. DSB never sent any cumulative report, and the County Governor of Oslo and Akershus experienced that the template in CIM must be made more precise.

The civil defence district received three reports from the County Governor of Oslo and Akershus. These reports were informative and good at a general level.

The Norwegian Public Roads Administration had to obtain information through news broadcasts every hour. Only the Emergency Planning Agency in Oslo contacted the crisis team during the entire exercise.

Challenges associated with information sharing and situation reporting have been reported from many sources. Yilport, however, describes that the reporting went well, and that Yilport had good contact with both the ambulance and fire services.

Reporting: assessment – consequences

The Oslo Fire and Rescue Department has prepared good procedures for the most relevant fire and rescue issues. The plans and procedures should nevertheless be reviewed and updated as necessary.

The police focus attention on the poor awareness of the situation combined with insufficient situation reporting, which was not in accordance with the routine lines, resulting in poor interaction at the incident site.

The health service is of the opinion that interaction, primarily with the fire and police services, especially on the way to, but also at the incident site is important. Cooperation with other sectors at a general level is not necessarily decisive for good treatment of patients, but it may nonetheless be important in certain situations. The need for a “common situation overview” is therefore not required in all situations and at all levels in order for the actors to solve their tasks.

Description and assessment of the use of liaisons

The Emergency Medical Communications Centre had a liaison with the Oslo Police District / Local Rescue Centre. The liaison reported to the staff at the prehospital centre, which kept the crisis management informed about important matters. This functioned well.

At the request of the Oslo Police District at 09:30 hrs, the County Governor sent an emergency planning staff member as a liaison to the Rescue Management to report at 10:00 hrs. They reported back that it is important to assess the correct use of resources in demanding situations, and that one must bear in mind what the right competence, authority and tasks are for a liaison. It is important that the liaison function represents added value. The County Governor has already entered into a dialogue with the City of Oslo with regard to looking at the possibility of a liaison function for “Oslo-specific” incidents.

The police quickly asked for a liaison from the Norwegian Institute of Public Health (earlier than they would have done in a real incident). The Norwegian Directorate of Health also requested a liaison from the Norwegian Institute of Public Health, which sent a technical expert, but it was unclear what contribution the individual was to make. It was also demanding for the crisis team at the Norwegian Institute of Public Health to provide the individual with enough information, since they were also dependent on information from the liaison that was with the police, where it was of course very hectic and the liaison had more than enough to do

assisting the police. The liaison at the Norwegian Directorate of Health had a difficult job due to insufficient information that could satisfy the needs of the directorate. It should be considered if a liaison with the police should not have had an assistant that could have ensured communication with the crisis team at the Norwegian Institute of Public Health.

In order to represent the oil terminal, the manager from Shell was sent to the police station as a liaison, but his involvement was quite limited. It was nevertheless useful for the oil terminal to see how such a system functioned during a major incident. The Norwegian Public Roads Administration also had a liaison ready for the police, but he was not summoned. DSB offered liaisons to both the National Police Directorate and Norwegian Directorate of Health, as well as assistance from the info pool, but this was not used.

For those who were used to exchanging resources through the use of liaisons and had experience from prior cooperation, this scheme usually functions very well. However, for persons who are not familiar with how the task is performed, it may be difficult for them to orientate themselves when there is hectic activity where one has been sent as a liaison. Liaisons can get the feeling that they are observers, more than contributors, and they lose the ability to report back to their own organisation in a good and efficient manner. Preparing a guide for how to facilitate the greatest benefit from a liaison arrangement should be considered.

3.2 ASSESSING THE NEED FOR AND POSSIBLY INITIATING EVACUATION

In the scenario for the exercise, it was apparent that the large amount of smoke caused by the fire at the fuel depot would create major problems for the population in the area, in addition to obstructing the flow of traffic on both roads and railways. The need for evacuation of the population in such a situation is debatable, and some individuals feel that the

need was somewhat artificial and contrived. This is primarily a technical exercise question, but some of the framework defined for the work may have been unnatural and must be taken into account for assessment of goal achievement and deciding on (and implementing) possible measures.

In a situation where there is need for evacuation, it is the police who decide whether an evacuation shall take place. It is the municipality that is responsible for ensuring that those involved and their families are well taken care of. In order to be successful at handling a large number of evacuees and their families, the police, municipality and other involved actors must coordinate their plans. Through practising together, competence can be built up in the various functions and incorporated into good routines for interaction.

Evacuees include in principle both injured and uninjured persons. Injured persons are normally transferred to hospitals, while the uninjured are taken care of at a suitable location where the municipality establishes an evacuee and family centre in cooperation with the police.

3.2.1 FRAMEWORK CONDITIONS FOR DECISIONS ON, AND THE EXECUTION OF, EVACUATION

Pursuant to Chapter V, Section 15 of the Civil Protection Act, the municipality's emergency preparedness plan shall include an evacuation plan. Pursuant to Section 4 of the Regulations relating to municipal emergency preparedness, the municipality's emergency preparedness plan shall include an evacuation plan and a plan for alerting the population. Section 27 of the Police Act concerns accident and disaster situations and requires that the police implement and organise rescue efforts when human life or health is threatened (...). In accident and disaster situations, the police are required to implement the measures that are necessary in order to avert danger and limit injuries. Until this responsibility is taken over by another authority, the police shall organise and coordinate the rescue effort. The instructions for the rescue service describe the rescue service as the publicly organised activities that are performed for the immediate effort to save people from death or injury as a result of acute accident or hazardous situations, which require coordination and are not safeguarded by specially created bodies.

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Since the situation could be characterised as a rescue operation, the collective rescue management was summoned, and the Local Rescue Centre was established under the management of the chief of police. The collective rescue management shall have an advisory function in relation to the chief of police with regard to being able to make decisions such as a major evacuation of the population on a reliable basis. The City of Oslo will to a great extent be the operative element. However, there are many actors who are decisive with regard to whether such an evacuation will be “successful”. The transport companies (Ruter (which is also part of the City of Oslo), NSB, Norwegian Public Roads Administration, Norwegian National Rail Administration), the Norwegian Civil Defence, voluntary organisations, the County Governor, et al., will in general be required to assist the police and the municipality in order to make this work. In addition, the Local Rescue Centre is dependent on good, solid information in order to make the right decisions. In this case, especially from the Norwegian Meteorological Institute and the Norwegian Meteorological Institute.

3.2.2 OVERALL ASSESSMENT OF THE ACHIEVEMENT OF GOALS

In the questionnaire that the evaluation syndicate distributed to all the organisations, the organisations were requested to assess the achievement of goals for the three principal objectives of the exercise. Not all of the participating organisations have been involved in this part of the exercise, and they have therefore responded “not applicable”. There are also certain organisations that have not answered the form, but have sent in their own version instead. There are eight actors who answered the question on the achievement of evacuation goals:

- Assessing the need for and possibly implementing evacuation of the affected city districts in Oslo

1	2	3	4	5	6
	Ruter	DSB	OFRD	OPD (S&O)	
		OPD (T)	CGOA		
			OACDD		
			NIPH		

The average on a scale of 1 to 6 is 3.6. In spite of the fact that this is a rough, and to some extent subjective assessment, an average score of three something does give reason to assume that there is room for improvement in this area. To the extent the available data makes such possible, this chapter will review the key elements and identify problems within the portion of the exercise associated with evacuation.

3.2.3 CHALLENGES

Good goal achievement in this case can be broken down into the following challenges:

- Obtain, compare and assess the relevant information
- Make a decision on evacuation
- Carry out the decision and follow up its execution

The first two will generally be carried out by the Local Rescue Centre / chief of police with assistance from the collective rescue management, based on information from many different actors and levels. The latter will generally be carried out by the municipality, with assistance from a number of actors.

3.2.4 OBTAIN, COMPARE AND ASSESS THE RELEVANT INFORMATION, AND MAKE A DECISION

Since the evacuation scenario occurred a while after the exercise had started, the relevant actors had already been alerted and mobilised. In this phase of an incident, it is the police who are responsible for management, as described above. The Oslo Police District had both established a staff and summoned the collective rescue management in connection with the accident at Sydhavna. It is the Operative Staff of the Oslo Police District that collate and present this information to the Local Rescue Centre.

The police write the following in their own evaluation: “Situation reporting to the Operative Staff goes via the operations centre, which receives its report from the incident site via the incident commander. The staff will of course obtain an overview of the situation after it has arrived at the operations centre, and there will always be a time delay here in relation to the subsequent elements in the chain. The staff experienced that the overview of the situation was updated late.” During the exercise, a new function referred to as an “operational chief” was tested. The

operational chief was to function as a liaison between the operations centre and the staff. This largely functioned as intended.

It has also been reported that the Operative Staff experienced certain challenges in connection with obtaining a clear overview of the status and situation from the incident site, and that this can be attributed to challenges associated with the capacity of the advisors at the Incident Commander's Command Centre. It is pointed out in particular that the fire and health services were underdimensioned with regard to management support at times. This impeded coordination of the efforts on site, and impeded the quality of the situation reporting that is included as an important part of the decision-making basis for the continuing management of the crisis.

The Operative Staff is responsible for reporting to both the Rescue Management and the National Police Directorate. In this exercise, information to the Rescue Management was given priority in order to give them the best possible benefit from the exercise. This was at the expense of reporting to the National Police Directorate during the most hectic phase. From the perspective of the Operative Staff, too much time was spent on updating the Rescue Management. However, it is also important that the Rescue Management is far ahead on the timeline, so that this does not conflict with the operational work of the staff.

In order to produce a better decision-making basis for the Operative Staff and Rescue Management, the police's intelligence service should be trained in rescue situations. This work resulted in a better basis for making decisions, but there were also certain challenges related to the fact that the various professions had to work closely together when time-critical decision-making support was to be provided. Certain actors were not equally used to working under time pressure.

During the exercise, a new model for the organisation of the collective rescue management / Local Rescue Centre was tested for the first time. This means that the acting chief of police and chief of staff sat together continuously with members of the collective rescue management. The chief of staff led the meetings and Rescue Management so that the acting chief of police could play a somewhat more passive

and strategic role. The final decisions were made by him in consultation with the Rescue Management. In addition, the police had a logger with them that communicated with the Operative Staff. The Operative Staff was led by an assistant chief of staff. The Oslo Police District had made a deliberate reinforcement of the management element in the Rescue Management here, so that this had a stronger impact on handling the incident. These measures were perceived as being successful.

Work in the collective rescue management was organised in batches: briefing by the police / Operative Staff, discussion around the table and time for members of the collective rescue management to work with their own organisation. This was perceived as being appropriate. A lot of good, important information was shared over the table, and the members received a lot of information they could relay to their own organisation. However, there is varying comprehension of their own role in the collective rescue management. Some organisations could probably have used participation in the Rescue Management in a more efficient manner. The organisations that are represented in the Rescue Management naturally have a desire to ensure that the added value is greater than the "loss" of sending valuable resources out of their own organisation. Not all cooperating organisations used their representatives in the Rescue Management to obtain/provide information. This created some misunderstandings and extra work for the Rescue Management and functions in the Operative Staff.

The members of the collective rescue management meet at approximately 10:00 hrs at the Grønland police station. The meeting was opened by the acting chief of police, which reminded those present of the function of the Rescue Management as advisors for his decisions – at a strategic level.

The Norwegian Institute of Public Health and Norwegian Meteorological Institute were also summoned to the Operative Staff early on. Representatives for both of these institutions participated in the staff's status meetings with the Rescue Management. The information that emerged at these meetings, both from different functions in the staff and representatives from the Norwegian Institute of Public Health and the Norwegian Meteorological Institute, is perceived as being very useful and

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functioning as a good basis for the discussions and assessments of the Rescue Management. Information from the Norwegian Meteorological Institute concerning the wind direction and expected development, together with information from the incident site, gave the Rescue Management early indications that a major evacuation of the affected city districts may be required. In light of this, it is appropriate to ask why the Norwegian Public Roads Administration was not involved earlier and to a greater degree.

In addition, there are questions about where and by whom problems related to evacuation, but which do not have direct consequences for life and health, are assessed. In the Rescue Management, there was little or no discussion related to areas such as:

- What if the area around the Oslo S train station had to be evacuated? – consequences for traffic management and the ability of people to get out of the city
- Flow of traffic into and out of the city
- How should such a number of evacuees be handled? Can one assume that people can stay with friends and family, to what extent are the authorities responsible for accommodation?
- How to provide food, medicines, etc.?
- How long can this situation last?

The chairperson for the collective rescue management asked repeatedly whether there was a need to bring additional representatives in. The liaison from Ruter was with the chief of police's operative staff. Liaisons from the Norwegian National Rail Administration and Norwegian Public Roads Administration were not with the chief of police's operative staff. The latter was not with the Rescue Management either.

At 14:20 hrs the Rescue Management received a report on a development in the situation at the incident site. The fire had spread to the fuel depot and the build-up of smoke was considerable. After a few minutes of discussion, it was concluded that there will be a need to press the big button – exposed areas were to be evacuated. It was still unknown what areas this would be.

The situation update from the Operative Staff arrived 20 minutes after the report that the fire had spread. A visualisation of the forecast spread of

smoke from the fire was shown. Both the Norwegian Meteorological Institute and the Norwegian Institute of Public Health presented their professional assessments. The forecast for three hours later showed that the affected area could be larger than first assumed. The Norwegian Meteorological Institute stressed, however, that it was only a model and that there was a need to take measurements. The Norwegian Institute of Public Health had both measurements and models. The smoke consisted of airborne particles in hazardous concentrations. It emerged that both the Norwegian Institute of Public Health and the incident commander on site considered the smoke to be toxic. The Oslo Fire and Rescue Department disagreed with this, but the Norwegian Institute of Public Health maintained its opinion. It was stated that the level of smoke / hazardous substances indoors in homes (even with windows and doors closed) would be about 50% of the outdoor level.

Based on information from the Operative Staff, Norwegian Institute of Public Health and Norwegian Meteorological Institute – supplemented by several members of the collective rescue management – the outer borders for the evacuation zone were defined. Visualisation using maps clearly represented added value in this situation.

In spite of certain challenges related to the flow of information from the incident site via the operations centre to the Operative Staff, there were no major deficiencies in obtaining, comparing and assessing the information. The information basis that was available was sufficient so that the Rescue Management / chief of police could make assessments and make the necessary decisions. The clarification of roles, responsibilities and authority appeared to be very orderly and clear at a general level.

3.2.5 CARRY OUT THE DECISION AND FOLLOW UP ITS EXECUTION

In executing an evacuation, the municipality is an important key actor. In the City of Oslo, it is the Department for Health and Social Services that has the ultimate responsibility for evacuation. The Department for Health and Social Services is also responsible for coordinating resources from Ruter, the Norwegian Civil Defence, the Red Cross and the Agency for Urban Environment. The city

districts themselves are responsible for evacuating persons requiring assistance, such as persons who receive home care services or day care centres. The Education Agency is responsible for evacuating the schools.

In such a situation that arose during the exercise, in which thousands of people must be evacuated, there will be a need for extensive cooperation with a number of actors. Most people who are located in the area to be evacuated will manage to evacuate themselves. The Rescue Management assumed that this would apply to a percentage as high as 80 to 90 per cent. Given this, 10 to 20 per cent of the population will require some form of assistance. In such a situation, the municipality and police will require extensive cooperation with the transport companies, road and railway authorities, Norwegian Civil Defence, voluntary organisations, etc. In the following chapter, we will review alerting the municipality, other relevant actors and the general public. Then the handling will be assessed with emphasis on interaction between the actors. Finally, communication with the population will be assessed briefly. This will be supplemented in the chapter on communication.

Alerting and evacuation

The alert must first be given by the Rescue Management / police to the municipality, which is responsible for implementing the evacuation of the portions of the population that require assistance. At 14:02 hrs it was clear that there was a need to alert the population. The use of SMS messages was discussed. It is unknown whether the crisis management was notified about this. At 14:29 hrs the chief of police sent out a notice to start planning evacuation of the population. At 14:31 hrs the population alert provider, UMS, carried out a simulation of how many persons with a mobile subscription were located in the defined area. The actual order to evacuate came at 14:33 hrs. An analysis of the municipal enterprises in the area was conducted, as well as an analysis of those who required assistance with evacuation. The establishment of an evacuation centre was implemented at 14:47 hrs.

Alerting the population

Alerting the population was carried out by means of the Norwegian Civil Defence's siren system (announcement: listen to the radio). The police, in cooperation with the municipality, formulated the message, which was presented to the Rescue Management

and approved by the chief of police. The police used Twitter actively during the incident. Twitter was the police's preferred channel during the initial phase, and it was also used to alert the population. In addition, location-based population warning by SMS was tested. Location-based alerting is performed by first determining which mobile cells cover the area in question. By means of probes in the mobile operator's network, SMS messages are routed to mobile subscribers that are within the geographic area in question. In return, statistics are obtained on how many received the messages, where they have been received, and the nationality of the receivers' SIM cards.

The test consisted of simulating transmission. This permits the retrieval of real-time data from the telecommunications network, which gives a "count" of all the phones in the defined area without actually sending an alert. This is done in a matter of seconds and provides a good indication of the population and density within the defined area.

The test showed that there were 23,727 phones (22,031 Norwegian SIM cards and 1,696 foreign SIM cards) in the area.

Municipality's subsequent alerting of cooperating actors

Ruter assists the municipality with transport services in the event of an evacuation. As is evident above, the alerting of Ruter was described as insufficient. Ruter writes in its evaluation report: "In time the press and emergency phone line were alerted, but it was unclear in the communication whether Ruter was formally alerted and whether one was to mobilise one's own resources. The notification in other words did not contain the information necessary to mobilise and implement. (...) Ruter is otherwise of the opinion that a request for assistance shall be from the police, who are responsible for implementing the evacuation".

The Norwegian Civil Defence may also be an important resource in such a situation. The Oslo and Akershus Civil Defence District reports that notification to them shall normally be by telephone. Whoever answers the telephone call has a special form that is filled in when a request for assistance is received to ensure receipt of correct and relevant information. The request for assistance for establishment and operation of an evacuee and family centre from the

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City of Oslo arrived by e-mail to an employee. This e-mail was not read, and time was lost during the notification phase.

3.2.6 INTERACTION AND FLOW OF INFORMATION BETWEEN THE INVOLVED ACTORS

City of Oslo and the police

Cooperation and coordination between the City of Oslo and the Oslo Police District will be decisive in connection with the handling of such a scenario. The City of Oslo had several lines into the police. The central crisis management had a representative at the Local Rescue Centre (LRC). Other representatives from the City of Oslo at the LRC include the fire chief, port captain, head of the Section for Acute Psychosocial Services, the causality clinic and the chief municipal medical officer. The chief municipal medical officer participated on behalf of the Chief County Medical Officer. With so many representatives in the Local Rescue Centre, there were some uncertainties with regard to the comprehension of responsibility and distribution of tasks. During the exercise there was an unclear comprehension of roles and responsibilities between the chief municipal medical officer and the representatives from the Emergency Planning Agency and the Section for Acute Psychosocial Services. The central crisis management had a good dialogue with their liaison

in the LRC. Clarifications and the implementation of measures were discussed on an ongoing basis.

Internally in the City of Oslo

The organisation of several crisis managers at several levels in the City of Oslo requires very good internal communication and coordination, in addition to a clear relationship to responsibility and authority. The evaluation shows that there are several challenges associated with this. It is pointed out, for example, that the staff has not prepared an actor map of the parties involved, which entailed an inadequate overview of who was to receive the reports. Some of the information that was communicated was at times unclear and incorrect. The Department for Health and Social Services gave the evacuee and family centre the wrong number, and gave unclear instructions for the addresses. Incorrect information also applied to the evacuation of persons with a need for assisted evacuation. The evacuation of this group took a very long time. This internal uncertainty and the lack of coordination showed up apparently in poor cooperation with three important actors that are to assist the city districts with the evacuation work: the Agency for Urban Environment, Ruter and the Red Cross. The Agency for Urban Environment's inquiry to the City of Oslo was never answered, and the Agency for Urban Environment was accordingly never formally summoned to assist. The Agency for Urban Environment assisted nevertheless with the



The screenshot shows a news article from the website 'Dagens gang'. The article is titled 'Halve Oslo evakueres' and is dated 15:19 on 2015.04.28. The text of the article reads: 'Øvelse! Øvelse! Øvelse! Alle innenfor ring 3 i Oslo skal evakueres, sier politiet til Nyheter24. Sjørøya vurderes nå som et høyrisiko område etter at 30 000 liter diesel rant ned i en karr i en av tankene. Brannen er under kontroll, men det er fare for røykspredning. Hendelsen er under etterforskning. Alle innenfor ring 3 er under evakuering. Innsatsleder anbefaler å følge med på sosiale medier, media og politiets nettsider for oppdatere seg på utviklingen.'

evacuation of schools and day care centres based on their own initiative and an informal inquiry from Ruter. As a result of this, the Agency for Urban Environment experienced some uncertainty concerning their role and responsibilities in the field at the evacuation points, and took the initiative themselves to clarify this.

Ruter received information and tasks from many different actors, such as the city districts, schools, Emergency Planning Agency, Department for Health and Social Services, Local Rescue Centre and the police. Information that was received from the municipality was not coordinated and not clear enough. As a result of this, the central decision points of who was to be evacuated and how were not given to Ruter. Formal reporting channels and information sharing between the municipality, police and Ruter appear to be unclear. According to Ruter, the lack of information entailed difficulties with regard to mobilisation of the right resources and making the right decisions, which meant that the handling was not optimal. For example, this concerned the fact that Ruter did not receive relevant information on the need for evacuation, which entailed that they were not requested to handle all the locations that were to be evacuated, and the fact that Ruter was not able to establish a dialogue with external actors, since they were not available / did not answer the phone, which created uncertainty with regard to the safety situation for their own personnel and passengers.

Ruter, the municipality and the police

Ruter's emergency response management assessed the situation such that it could be relevant to assist the City of Oslo with evacuation. Ruter contacted the operators to clarify what resources were available, and to establish plans to make equipment available that was already in use in regular scheduled services. Contact was established with the Emergency Planning Agency to offer resources.

Ruter did not receive the alert to implement evacuation. There was a call at 11:11 hrs from the Department for Health and Social Services to Ruter's press and standby duty service with notice that evacuation from schools and day care centres in the Gamle Oslo and Nordstrand districts had been implemented. This resulted in no activity on the part of Ruter. The simulation staff did, however, have to make a correction to this notice and notify Ruter that

they were requested to assist with the implementation of evacuation. Ruter started then to collect information on who should be evacuated.

Gradually in time, Ruter received information on who should be evacuated from many different actors: city districts, Emergency Planning Agency, Department for Health and Social Services, police, schools, day care centres and the Education Agency. Information was not coordinated on the part of the municipality. The liaison from Ruter was in the Oslo Police District, but he experienced that the function was not structured well enough.

The police for their part say in their evaluation that contact with Ruter proved to be very important in relation to the evacuation of the population, and that the cooperation was perceived as very positive.

City of Oslo, volunteers and the Norwegian Civil Defence

Through the Department for Health and Social Services, the City of Oslo has prepared cooperation agreements with the Norwegian Civil Defence and the Red Cross concerning operation of the evacuee and family centre and the transport of people requiring assisted evacuation. It was the intention that the Norwegian Civil Defence would take care of access control and security at the centres, but because the Norwegian Civil Defence is a reinforcement resource with a relatively long mobilisation time (1-2 hours), this had to be reassessed. The Norwegian Civil Defence is well-suited to reinforce and replace personnel if the situation becomes more long-term and there is a need for extra personnel. The Red Cross was used to assist with the evacuation of persons requiring assisted evacuation. There were several challenges that prevented an efficient evacuation. Some of them were related to the transport capacity and traffic situation at the point in time. The main challenges for the leader from the Red Cross, however, were in finding out who in the municipality he should related to and in obtaining the necessary information. Clear routines for the flow of information between the municipality and the Red Cross should be established. The evaluation from the Red Cross shows that the agreement on use of their personnel must be limited to evacuation from buildings, support for the evacuees, coordination of transport, as well as the registration of evacuees. It is pointed out that established transport companies should be

responsible for the actual transport to the evacuee and family centre. The capacity of the Red Cross is dimensioned for the transport of individuals with special needs and small groups.

Norwegian Public Roads Administration

During the exercise, contact between the police and the traffic management centres was inadequate, and it was unclear at times what parts of Oslo should be closed to traffic. In cooperation with the police, earlier this year the Oslo Road Department made a change in their plans concerning a liaison to the Local Rescue Centre, to support technical traffic questions during major incidents. This expertise was never requested.

3.2.7 INFORMATION TO THE GENERAL PUBLIC

Communication with the media and the population is discussed in Chapter 4, but in the discussion on the implementation of evacuation, the attention must be particularly focused on the challenges the actors had in connection with presenting a common message about the evacuation.

The Oslo Police District had contact with several partners, first and foremost the central crisis management in the City of Oslo and Department for Health and Social Services, but they were not successful in coordinating the message. In connection with the evacuation of the schools, for example, the central crisis management sent out an alert that all the schools in the area were to be evacuated, which was subsequently changed to three schools were to be evacuated. Information that was late and unclear, combined with an unclear distribution of responsibility between the Department for Health and Social Services and the city districts created confusion and frustration among the general public.

Coordination of the message should also take place at several levels, including in the field at the incident site and in the rescue management.

With regard to evacuation of the population and the evacuee and family centre, responsibilities must be clarified between the police and the municipality, and this applies to the responsibility for information as well. What is important to communicate, who is to communicate, etc.

In addition, the police announced at one point in time that the evacuation zone was the entire area within Ring Road 3. This information was repeated on social media, in ordinary media (online newspapers) and orally on a live news broadcast at 15:00 hrs. Information that everyone within Ring Road 3 was to be evacuated was repeated several times during the news broadcast, both by the police representative who is interviewed at the incident site and by the news anchor in the studio.

3.2.8 ASSESSMENTS AND PROBLEMS

Communication between the actors involved

Many actors perceived the dialogue with the police and City of Oslo as challenging. The reason for this appears to differ between the two actors. For the police, the system that received calls quickly became overloaded. Many actors perceived a need for a close dialogue with the police, while the police's resource situation did not allow such to the degree the actors would have liked. For the City of Oslo, it appears as if the challenges can to a large degree be attributed to the size and complexity of the organisation, as well as somewhat unclear responsibilities and authority within the municipality. This entails uncertainty both internally and externally with regard to who is to have what responsibility, as well as who one should relate to and share information with.

Collective rescue management and the new organisation of the work/interaction between the Rescue Management and the police functioned very well. The Rescue Management was kept continuously informed and was involved in all the strategic assessments and decisions during the entire course of events, and they to a large extent had the time and opportunity to work with their own organisations and for bilateral meetings between the organisations. In order for work in the collective rescue management to function optimally, good, adequate and timely information is of decisive importance. The police ensured this by means of relatively frequent status updates during which representatives from the Operative Staff reported relevant information. These updates were kept short and concise, and gave – combined with the information that the representatives in the Rescue Management could bring from their own organisation – a very good foundation for discussion and decisions. There is good reason to assume that communication and interaction between

the actors that were represented in the Rescue Management were significantly better than for those who were not present. From the perspective of the Operative Staff, however, it has been evaluated that too much time was spent on updating the Rescue Management. Alternative solutions must be assessed here, since the Rescue Management is dependent on good information and the Operative Staff is dependent on having time to perform their tasks.

As is evident from the review in this chapter, there were a lot of things that functioned well, but the lack of dialogue and insufficient exchange of information caused frustration and uncertainty for several actors. It appears, however, that when responsibility has been established in advance, agreements on more or less formalised cooperation are in place and schemes related to various forms of liaisons have been established, the interaction functions significantly better.

3.2.9 CONSEQUENCES OF AN EVACUATION

Traffic management

According to the numbers from the City of Oslo, just under 24,000 people were in the area defined for evacuation. In addition, it was stated repeatedly in the media and social media that everyone located within Ring Road 3 was to be evacuated. Furthermore, there were certain roads in and out of Oslo that were closed due to the fire at Sydhavna. It is easy to take for granted that the public road network functions at all times without any traffic management problems, and that it can therefore apparently seem easy to close roads at the same time as one is evacuating and sending emergency vehicles on the public road network that is open. In reality, however, the simple closure of tunnels, for example, will quickly entail blocking other parts of the public road network. It is difficult to simulate during an exercise, but the evacuation of central Oslo and an emergency response would be much more challenging if the public road network was actually physically closed. With the risk of delving into technical exercise problems, it is nonetheless necessary to question whether the challenges related to traffic management were being taken seriously enough. Lack of communication and insufficient exchange of information between the police and the road authorities during the exercise may be the cause of this challenge being under-communicated. During the exercise, problems in the public road network were never reported, which emerges

as relatively unrealistic when such large portions of central Oslo are to be evacuated. The assessment of the Norwegian Public Roads Administration is that the insufficient and sometimes total lack of contact with the municipality and the police concerning a focus on navigability in connection with the evacuation would have resulted in major problems in a real situation.

Other capacity challenges have only been pointed out in the data for this evaluation to a limited extent, but there is nevertheless reason to question the transport capacity, the capacity of the evacuee and family centre, and the capacity for manned surveillance and security on the perimeter of the area to be evacuated. When the evacuation decision was made there were around 23,700 telephones within the area in question. There is reason to assume that the real number of people who would have to get out of the city and find alternative accommodation is significantly higher. Firstly, many children live in the area (who presumably do not have a mobile phone, and therefore are not included in the count) and, secondly, the count was made at a time when many people are at work. The area that was to be evacuated consists primarily of residential units – not companies or workplaces. In addition, possible traffic management problems could be exacerbated by the fact that school and day-care centre children had been evacuated to different locations by the city, and they will have to be collected by their guardians. Given a situation in which this, in addition to potential public order problems, could represent a risk to life and health, it would have been of decisive importance to have an extensive manned surveillance and security plan.

Manned surveillance and security

In the collective rescue management, it was disclosed orally that a request for assistance had been sent by the police at around 16:00 hrs. In addition, it was disclosed that general assistance had been requested. "When the Norwegian Armed Forces are to support the police by manned surveillance and security in peacetime, this is currently regulated as enforcement assistance through [the Assistance Instructions](#). In accordance with the aforementioned [instructions](#) general and enforcement assistance respectively entails the following: general assistance: (a) assistance with transport and other administrative assistance, including assistance in the form of special technical capacity or expertise that the Norwegian

Armed Forces possesses, which does not directly involve the military assistance unit in the police's operative solution of tasks, (b) assistance in connection with accidents (including searching for persons who are assumed to have perished), natural disasters and similar situations and (c) assistance in connection with the neutralisation or removal of explosives and the like. In accordance with the instructions, the Norwegian Armed Forces may provide enforcement assistance to the police in the following situations: (a) searching for and the apprehension of dangerous persons when it is necessary in order to avert an imminent risk to anyone's life or health. The military effort should as a rule be concentrated on manned surveillance, security and cover, while the police should perform the active apprehension, or (b) if there is a risk of an attack of an extensive or particularly damaging nature aimed at essential societal interests, and for preventing and combating such; in this connection, the Norwegian Armed Forces can for example assist the police in connection with manned surveillance and the securing of objects and infrastructure.

Taking the aforementioned distinctions into account, a request for general assistance appears to be inadequate. It can be questioned whether enforcement assistance should have been requested, and whether this situation falls under the criteria that are specified in the instructions at all. Thus the possibility is opened that the Norwegian Armed Forces would not have been able to assist. In this case, what resources should have provided manned surveillance and security for such a large area is an open question. If the request would have been complied with, there would also be a need to fill the period of time it would have taken to mobilise the resources of the Armed Forces. The Norwegian Home Guard stated to the collective rescue management that it would have taken 4 to 6 hours from "blowing the horn" until the personnel were in the street. There was talk of the necessity of planning for a long-term need for a response, but it appears somewhat unclear whether anyone had a solution for this challenge, and who would have taken responsibility for this when the rescue operation was over.

Responsibility and authority

A very relevant question is who is responsible for the challenges related to evacuation that do not immediately concern life or health. The collective

rescue management and the police were very clear that problems beyond the acute risk to life and health were not their concern. It is important to fathom the consequences of evacuating several tens of thousands of people, and to have a very clear idea of who is responsible for what. In HarbourEx15, the exercise was carried out in accordance with completely fresh plans for the evacuation and the evacuee and family centre. This is demanding, but it also provides a golden opportunity to identify weaknesses and improvement potential in plans that have not yet been incorporated into the respective organisations. It is of decisive importance to be clear as to who assists whom, and who is managing the handling at any given time. Who should decide what, and on what basis? The police must make decisions then and there on the decision-making basis that is available, and it is important to be in the forefront of developments. However, in order to manage this, it is also important that other actors are familiar with their own responsibility, and know what actions are expected when such a decision is made.

3.3

EFFECTIVELY CONTROLLING AND MINIMISING THE DAMAGE OF ACUTE POLLUTION

Scenario: grounding, Search and Rescue (SAR) and an oil protection operation took place the day after the explosion/fire at Sjursøya. This was defined as an acute pollution scenario, including a rescue element for a chemical rescue at sea. In addition, one of the aims was to test the transition from a rescue operation to an environmental operation, in addition to the fact that the police wanted to train in the investigation of a grounding as part of the exercise LIV.

Central participants in this scenario included:

Joint Rescue Coordination Centre Southern Norway, Oslo Fire and Rescue Department, Inter-Municipal Acute Pollution Committee for Inner Oslo Fjord, Port of Oslo (including the Oslo the vessel traffic



Photo: Espen Reite/ The Norwegian Coastal Administration.

service centre), the police, the Norwegian Coastal Administration and the Norwegian Coast Guard.

The search and rescue resources consisted of; Vekteren (police boat), Redningen (Oslo Fire and Rescue Department) with the rescue at sea chemical team, RS 152 (Bergesen d.y), 330 Squadron – Sea King Rygge, police - Heli 30, and the Norwegian Coast Guard – KV Nornen.

Other resources: Fireboat Asker & Bærum, Hauk (Port of Oslo), Pelikan (Port of Oslo), MS Prinsen (simulated disabled vessel from the shipping company Norled), 3 vessels on standby close to shore (Ingeborg Platou, Sjøglimt and Lillegutt) from the Norwegian Coastal Administration, workboats from the Norwegian Coastal Administration and the Inter-Municipal Acute Pollution Committee for Inner Oslo Fjord, as well as depot personnel, oil protection equipment and emergency response personnel from the Norwegian Coastal Administration and the Inter-Municipal Acute Pollution Committee for Inner Oslo Fjord.

3.3.1 SCENARIO – GROUNDING AND ACUTE POLLUTION

The MS Prinsen received an urgent assignment outside of its scheduled service to transport 25 litres of 96% sulphuric acid from Aker Brygge to Sjursøya. There were eight persons on board. En route the master of the vessel became distracted and ran aground at the position 59.53,17 N 010 43.58E, as the vessel passed the island Gressholmen (Nordre brygge – see illustration). The vessel started to leak and took on a lot of water. The vessel's tank no. 3 was punctured and released approximately 10 to 12 m3 of bunker oil.

The captain chose to beach the ferry the MS Prinsen at Skinnerbukta on the island of Malmøya. In the simulation the vessel was driven onto the beach in order to avoid sinking. The can with sulphuric acid tipped over as a result of the grounding and the cover loosened. The sulphuric acid reacted with water from the leak and generated gas. The chief engineer and his assistant were in the area adjoining where the gas is generated, and were disabled. The captain could not establish contact with the chief engineer, and therefore he sent two seamen down to the engine room to check the conditions. They were also affected by the gas, and they did not manage to report back to the captain.



The map shows the location of the grounded ship.

Responsibilities

The MS Prinsen, represented by the captain, “owns” the incident, and the captain is responsible for the ship’s own safety for all types of acute emergency and preparedness incidents in which the ship is involved. Coastal radio (Telenor Maritim radio, including Tjøme radio) has a duty to monitor the radio, and as a societal duty assigned by the Ministry of Justice and Public Security, there is a responsibility to maintain radio communication with vessels in distress on behalf of the public rescue service.

The public rescue service, represented by the Maritime Rescue Coordination Centre / Joint Rescue Coordination Centres have the overall responsibility for coordination of all search and rescue operations at sea, within the entire Norwegian search and rescue region.

OSC – (On-scene Coordinator) is the extended arm of the Maritime Rescue Coordination Centre and the representative at the incident site. An “OSC” – can only be appointed by the Maritime Rescue Coordination Centre. The KV Nornen was appointed as the OSC for the Maritime Rescue Coordination Centre in this exercise. This was because it had the best work platform, and the greatest number of personnel experienced in handling the tasks that the Maritime Rescue Coordination Centre would require the OSC to perform during a real incident. All the units at an incident site who desire to contribute to the rescue work, shall report to and comply with instructions given by the OSC.

The Oslo Fire and Rescue Department is one of two fire services in Norway that have special expertise and equipment for rescue efforts on vessels in a chemically contaminated environment. The Oslo Fire and Rescue Department’s rescue at sea chemical team was called on by the Maritime Rescue Coordination Centre to locate and save missing persons on board the disabled vessel. They were placed on board the disabled vessel from the Oslo Fire and Rescue Department’s vessel the Redningen.

The Port of Oslo Vessel Traffic Service Centre was responsible at the time of the exercise for directing maritime traffic in the Port of Oslo area of responsibility. The Port of Oslo also has emergency preparedness in the form of the Inter-Municipal Acute Pollution Committee in an oil protection operation,

and assisted with vessel resources and oil boom equipment.

The City of Oslo (municipalities in Norway) has an emergency preparedness duty and duty to take action for acute pollution incidents pursuant to the Pollution Control Act. An Inter-Municipal Acute Pollution Committee takes care of the municipal emergency preparedness duty and duty to take action on behalf of several municipalities in a region. During the exercise the Inter-Municipal Acute Pollution Committee for Inner Oslo Fjord was responsible to take action against acute pollution.

The Norwegian Coastal Administration is the national pollution authority for acute pollution incidents. During the exercise the Norwegian Coastal Administration’s emergency response organisation supervised the incident, and assisted the Inter-Municipal Acute Pollution Committee with government oil protection resources (vessels, equipment and personnel).

During this exercise, the police investigated the incident parallel to the oil protection operation.

Description of alerts and reporting

The Port of Oslo Vessel Traffic Service Centre received notice about the grounding from the ferry the MS Prinsen on 29 April at 09:16 hrs. It was reported that the ferry sailed on and was taking in water. The captain reported that the vessel had started to list and that he wanted to run it aground.

The Port of Oslo Vessel Traffic Service Centre sent the alert about the grounding further in accordance with its own procedure / notification list. Mayday was confirmed sent from the disabled vessel and received by the Port of Oslo Vessel Traffic Service Centre and others (rescue boat et al.).

The captain of the Prince reported the vessel’s position, number of crew members and passengers. The chief engineer on board was missing, and it became clear after a short period of time that additional crew members were missing.

The Port of Oslo Vessel Traffic Service Centre was notified when it asked about the cargo that it consisted of heavy oil and some cans of sulphuric acid. The quantity of heavy oil and acid was estimated by the

captain. After that there was ongoing contact between the disabled vessel and the Port of Oslo Vessel Traffic Service Centre concerning the status of the vessel and crew. At the same time, communication was established between the disabled vessel, the Port of Oslo Vessel Traffic Service Centre, rescue boat and police boat.

Approximately 10 minutes after the grounding, the captain reported that he had grounded the *Prinsen* at the indicated location to save the ship. The Port of Oslo immediately established a crisis management. The Oslo Fire and Rescue Department established a staff at 10:15 hrs. The Oslo Fire and Rescue Department monitored the radio and logged the events on an ongoing basis. The operation leader was in dialogue with the Norwegian Coastal Administration, Port of Oslo, the 110 emergency centre, and others. Division of work between the 110 emergency centre, rescue at sea chemical team and the Inter-Municipal Acute Pollution Committee was clarified. The Inter-Municipal Acute Pollution Committee staff was formally established at 10:25 hrs. The rescue at sea chemical team remained at the 110 emergency centre.

At 09:26 Tjøme radio (Telenor Maritim radio) broadcast a notice of the grounding to ship and boat traffic. The captain of the *Prinsen* communicated with Tjøme radio on the status of the injured, search for missing persons and the condition of the ship. After this, Tjøme radio requested that the Maritime Rescue Coordination Centre be alerted, and the Port of Oslo Vessel Traffic Service Centre alerted the Maritime Rescue Coordination Centre. The Maritime Rescue Coordination Centre appointed shortly thereafter the coast guard vessel the *Nornen* to be the "On Scene Coordinator" (OSC), and contact was established between the KV *Nornen* and the captain of the *Prinsen*. The oil protection vessel from the Port of Oslo and the Oslo Fire and Rescue Department had also arrived at the disabled vessel then. The captain informed about a possible acid leak and gas risk.

At the same time, the Port of Oslo Vessel Traffic Service Centre confirmed to its own crisis management that all the actors had been notified in accordance with procedure. The Norwegian Coastal Administration was notified by the Port of Oslo Vessel Traffic Service Centre at 09:48 hrs. The Port of

Oslo Vessel Traffic Service Centre received information from the crisis management that all the employees of the Port of Oslo Vessel Traffic Service Centre and at Sjursøya had been alerted. A person from the Port of Oslo was at the incident site and was used as a liaison.

The Norwegian Coastal Administration received the initial alert from the Maritime Rescue Coordination Centre at 09:44 hrs. The Norwegian Coastal Administration mobilised its own surveillance aircraft LN-KYV at 10:00 (only simulated). Further internal notification, and notification of the Ministry of Transport and Communications was carried out by 10:12 hrs. Further follow-up and coordination with the County Governor of Oslo and Akershus, Inter-Municipal Acute Pollution Committee for Inner Oslo Fjord, shipping company Norled (responsible polluter) and the Maritime Rescue Coordination Centre. Coordination with the KV *Nornen* with regard to further use of this vessel in the oil protection operation after the life/health situation has been clarified. The Inter-Municipal Acute Pollution Committee for Inner Oslo Fjord requests assistance of vessels and depot personnel from the Norwegian Coastal Administration at 10:11 hrs.

At 09:54 hrs the Port of Oslo Vessel Traffic Service Centre received reports that the rescue boat had started a surface search for missing persons. The 110 emergency centre reported that a reception centre for ambulance and helicopter had been established. It was reported to the Port of Oslo Vessel Traffic Service Centre that the rescue helicopter (from Rygge) had reported to the OSC. Shortly thereafter, the Port of Oslo Vessel Traffic Service Centre informed that the oil protection equipment had been dispatched and about what resources were in place at the disabled vessel. Smoke divers were on their way to the disabled vessel at 10:06 hrs. The OSC (KV *Nornen*) reported to the Norwegian Coastal Administration at 11:03 hrs that the vessels from the Port of Oslo (the *Pelikan* and *Hauk*) were ready at the disabled vessel with oil booms. On standby with booms until the evacuation of the injured persons had been completed.

At 11:20 hrs the Norwegian Coastal Administration received notice from the Maritime Rescue Coordination Centre that their role in the operation was finished. The missing personnel on the vessel

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the Prinsen had been located and evacuated to land. From this point in time the operation is to be regarded as an oil protection operation. At 11:33 hrs, the Norwegian Coastal Administration clarifies with the KV Nornen that they can provide assistance to the Inter-Municipal Acute Pollution Committee for Inner Oslo Fjord for the oil protection operation being led by the Committee. The oil protection operation was concluded by the exercise management at 15:15 hrs.

3.3.2 ASSESSMENTS AND CONSEQUENCES

The Port of Oslo Vessel Traffic Service Centre was quickly alerted about the grounding by the disabled vessel, and forwarded the alert according to established procedures. The Port of Oslo Vessel Traffic Service Centre and the Maritime Rescue Coordination Centre / Nornen quickly established an overview of the situation and deployed resources for both the rescue / search for missing persons (SAR) and the oil protection operation.

As described earlier, the Norwegian Coastal Administration was in contact with the shipping company relatively early. This is natural, given

the pollution authority's (Norwegian Coastal Administration's) follow-up and supervision of the responsible polluter (shipping company). On a general basis, however, the Norwegian Coastal Administration's contact with shipping companies is limited to incidents involving acute pollution or the risk of acute pollution. Other natural points of contact with the shipping company in corresponding incidents may be the captain of the vessel in question (notifies his own shipping company, and this was carried out quickly in this exercise) and the Norwegian Maritime Authority.

The Port of Oslo Vessel Traffic Service Centre received ongoing situation reporting from the captain of the disabled vessel, Maritime Rescue Coordination Centre / Nornen and the incident commander for the oil protection operation (Oslo Fire and Rescue Department). Communication between the actors was also essentially open so that the Port of Oslo Vessel Traffic Service Centre could monitor what was taking place. The Port of Oslo Vessel Traffic Service Centre and the incident commander for the oil protection operation (Oslo Fire and Rescue Department) received information on the type of cargo and quantities so that they could implement



Photo: [Espen Reite / The Norwegian Coastal Administration](#).

oil protection measures. The Oslo Fire and Rescue Department did not have any oil protection operation as long as the rescue operation was ongoing. The master of the Redningen had contact with the firefighting commander, who was at the Incident Commander's Command Centre established at Kneppeskjærsutstikkeren.

The Port of Oslo Vessel Traffic Service Centre received reports that were forwarded to the crisis management. A liaison from the crisis management also sat in the offices of the Port of Oslo Vessel Traffic Service Centre during large portions of the incident. In addition to the actual reporting, a lot of information and assessments were shared between the actors over the communication network. This was the case both during the SAR operation and the oil protection operation.

Notification of the grounding and leakage of oil and chemicals took place from the disabled vessel to the Port of Oslo Vessel Traffic Service Centre. After a dialogue with Tjøme radio, the Port of Oslo Vessel Traffic Service Centre alerted the Maritime Rescue Coordination Centre and the SAR operation was initiated. The SAR operation also included rescue at sea chemical teams from the Oslo Fire and Rescue Department in the chemical diving and search for missing persons operations, and possible securing of hazardous chemicals (acid).

At the same time, the Port of Oslo and the Inter-Municipal Acute Pollution Committee for Inner Oslo Fjord prepared an oil protection operation to be ready to respond when the SAR operation had been concluded. When the SAR operation was concluded, the responsibility was transferred to the incident commander for the oil protection operation (Inter-Municipal Acute Pollution Committee for Inner Oslo Fjord). During the incident, there was also dialogue between the police, OSC, the captain and the Port of Oslo Vessel Traffic Service Centre concerning the handing of a fatality and access to the disabled vessel for investigation by the police. The rescue and oil protection resources had a dialogue over the communication network throughout the entire operation.

There were clear and well-organised changeovers in the operation: when the Maritime Rescue Coordination Centre took control, when the coast guard vessel the Nornen was appointed as the OSC,

who was responsible for what tasks in the SAR operation and the changeover to the oil protection operation. However, the changeovers were not tested well enough. Technically with respect to the exercise, it was determined when the changeover was to take place. The experience of the Incident Site Commander at Sea is that he had too many technical tasks to lead the operation well. The Redningen was not an optimal vessel for the Incident Site Commander at Sea. It should be evaluated whether another vessel (such as the Nornen) should have had the role of Incident Site Commander at Sea. The impression is that these actors were used to interaction, had good knowledge of each other's tasks, resources and procedures.

The personnel at the Port of Oslo Vessel Traffic Service Centre had to maintain normal operations in addition to handling the exercise. This is how it would be in a real incident as well. It is possible that the Port of Oslo Vessel Traffic Service Centre would have had even more to do in a real incident, since they would have then also had to stop or redirect traffic in the harbour. The evaluation team would like to point out in particular the importance of the precise use of terminology and names for a correct overview and comprehension of the situation. For example, the terms tank and cistern were used interchangeably for a period of time in the reporting from the emergency services, but they referred to two different facilities at different locations. The precise name of the chemicals in a destroyed container was another challenge for a short period of time.

There is reason to point out that when many resources are ready at the disabled vessel at the start of the exercise, the exercise can take on an artificial quality, and this can reduce the benefit gained from the exercise. Nevertheless, the exercise identified several factors that require action in the form of information sharing after the exercise. There is a need for the follow-up of communication, comprehension of roles and responsibilities, interaction and cooperation between the participating rescue agencies for incidents at sea.

It is a significant factor for a successful result and a good exercise in this context, that all the participating resources at sea, in air and on land are familiar with and have knowledge of their role and area of responsibility, in addition to possessing the necessary

ANALYSIS AND ASSESSMENT OF GOAL ACHIEVEMENT

familiarity with and comprehension of how the communication, interaction and cooperation shall take place at an incident site in a maritime scenario.

The rescue service's task was solved in a satisfactory manner, even if the manner in which the task was solved is not in accordance with the current regulations or form of cooperation with a view to the management structure and lines of communication.

3.3.3 CHALLENGES THAT SHOULD BE SUBJECTED TO FURTHER ASSESSMENT

Mayday

Nødstedt sent a Mayday call on a simulated VHS channel 16, i.e. Channel 72. A radio station responded immediately to the call, without identifying itself or handling the Mayday call in the proper manner. One or more other radio stations subsequently responded to the Mayday call and reported that they were en route to assist. There is so much activity on channel 72 that it took a long time before the coastal radio represented by Tjøme radio had enough space to respond to the disabled vessel and control the radio traffic.

Radio stations, i.e. SAR units and other operators with a maritime radio, are expected to follow the current regulations, and this is particularly important in connection with the exercise activity. This is because an exercise is the right time/place to practice what is to be done correctly in real incidents. When a Mayday call is sent from a vessel in distress, it is the closest coastal radio that will establish contact with the disabled vessel. The SAR resources/vessels or other radio stations who feel that they can assist during the acute phase of an incident report their availability to the coastal radio. The coastal radio reports the information received to the Maritime Rescue Coordination Centre, which leads and coordinates the assistance provided to the disabled vessel.

SAR Communication – communication discipline

Several of the units (SRU) at the incident site took direct contact with the disabled vessel and talked with other units (SRU) at the incident site. At times the radio traffic was so heavy that the coastal radio had to request radio discipline.

When the coastal radio has established contact with the disabled vessel, the coastal radio will obtain

the necessary information from the disabled vessel. Everyone who monitors channel 16 will be able to obtain this information. The information received will be forwarded from the coastal radio to the Maritime Rescue Coordination Centre, and the Maritime Rescue Coordination Centre in cooperation with the coastal radio will clarify what resources will be assisting the disabled vessel, and in what way. The coastal radio will control communication on the maritime radio. When suitable resources, such as the OSC, are appointed by the Maritime Rescue Coordination Centre, and this resource arrives at the incident site, the OSC can be given an opportunity to take over direct communication with the disabled vessel. Other units shall act according to the radio communication and the instructions by the OSC, when the coastal radio informs about what vessel has been appointed by the Maritime Rescue Coordination Centre to be the OSC. All units shall observe strict radio discipline during the development of the scenario.

Duty to monitor channel 16 (channel 72) – Use of the Norwegian Public Safety Network in parallel to the maritime VHF channels

For long periods of time, the OSC attempted to call up additional resources to participate in the incident. It took up to 15 minutes from when the call was made until a response was received. The KV Nornen had to send its light boats to one or more of the resources, knock on the window and ask them to listen to the radio. It was clear that these resources were busy in another communication network (i.e. Norwegian Public Safety Network), and informed their own agency on the status of their own response in the scenario.

It is particularly important that resources that normally operate in another communication network (Norwegian Public Safety Network), do not confuse this with the radio routines and regulations in the maritime radio communication environment. It is expected that the resources that operate in the maritime environment have adequate knowledge of and observe the rules that apply to maritime communication. All boats that have a radio licence for a maritime radio have a duty to monitor the radio. This follows from the licence that has been granted. There will of course be a special expectation that the resources that make themselves available to the public rescue service and participate in search and

rescue operations both observe the communication procedure that applies to maritime communication and at the same time listen to the instructions that are given. The duty to monitor the radio for all boats with a VHF radio is based in general on: *ITU Radio Regulation Articles – Edition 2012, ITU Chapter I: Terminology and technical characteristics and ITU Chapter VII, Section 3 – Watchkeeping.*

SAR – Maritim ledelsesstruktur – «Chain of command»

The OSC (KV Nornen) was at times put out by how certain resources did whatever they liked at the incident site. The reporting lines did not function adequately, and it was not possible to establish contact with several resources for a long time on channel 72. Some resources contacted the disabled vessel directly and other resources on channel 72 without agreeing on a separate working channel for their internal calls. One or more of the resources initiated work efforts that they were not assigned by the OSC.

Just as the communication plan indicates who has contact with the disabled vessel, all the resources should report to their immediate superior during an incident. All the resources that make themselves available to assist are a SRU (Search and Rescue Unit.) During the acute phase, the coastal radio gives instructions on behalf of the Maritime Rescue Coordination Centre. When the OSC is on site, the OSC gives instructions to the SRUs. When a task is ongoing or has been completed, the SRU reports to the OSC, and the OSC reports subsequently to the Maritime Rescue Coordination Centre. The Maritime Rescue Coordination Centre reports the necessary information subsequently to the police/health services or other agencies that require detailed information from the incident to continue their cooperation in connection with the incident. If each SRU spends a long time updating their own agency, so that the Maritime Rescue Coordination Centre ends up obtaining its information from another operations centre, instead of reporting to the OSC, we are headed in the wrong direction to improve cooperation at the incident site. When the Maritime Rescue Coordination Centre in Southern Norway coordinates maritime incidents, it is to handle all the press/media inquiries, unless otherwise agreed. If the media contact other actors in the Rescue Service, they are to be referred to the Maritime Rescue Coordination Centre's permanent number for press inquiries: tel. +47 51 64 60 10.

Handling the media during SAR incidents

The police media representative informed the press about the maritime incident on an ongoing basis. When the Maritime Rescue Coordination Centre in Southern Norway coordinates maritime incidents, it is to handle all the press/media inquiries, unless otherwise agreed.

Establishment of a reception centre

In the communication between the Maritime Rescue Coordination Centre and the Local Rescue Centre, several names were mentioned as potential locations for receiving evacuees / injured persons. In the end, the Local Rescue Centre decided on a suitable location for the reception centre. The associated position for the location was not stated. It is important that both the name and position of the desired location for the reception centre is reported to the Maritime Rescue Coordination Centre, so that resources are not sent to the same place name at another position.

3.3.4 OTHER COMMENTS

The Oslo Fire and Rescue Department makes reference to the fact that Scenario III was a well-organised incident site. The Incident Commander's Command Centre was established on land. The firefighting commander communicated well with the emergency call-out leader in the field at the disabled vessel. This quickly gave the Incident Commander's Command Centre a common understanding of the situation.

The rescue at sea response on board the disabled vessel under Scenario III functioned very well. The same can be said about the organisation of the CBRNe task that day. There was a well-organised Incident Commander's Command Centre here, to which support functions quickly became attached.

Oslo University Hospital also benefited well from the incident site. The rescue at sea exercise had many positive elements. In particular, the communication between the operative health commander, health service commander and doctor on the Sea King.

CHAPTER

04

Communication
with the media and
population



Communication with the population and media in connection with serious incidents, crises or adverse events is challenging. The authorities are to collect information, form an opinion and communicate in various channels. At the same time, experience from crisis management shows that it is decisive for both the strategic and operative handling that the authorities give the population information on how they should react to an incident early on. Reaching out with adequate information in time is of course probably the most demanding in the early phase, but also in later phases if the situation is unclear and the decision-making basis is thin, and if the consequences of actions are great. Many crises also affect multiple organisations and sectors, and coordination of information between the affected authorities becomes necessary. The authorities must therefore have routines that help ensure that they can communicate in a coordinated, uniform, concrete and continuous manner with the population and media during incidents.

4.3.1 DATA SOURCES FOR EVALUATION OF COMMUNICATION

The evaluation of the authorities' communication with the media and population during HarbourEx15 is based on several types of data sources. Information the agencies and organisations published on the different interfaces during the exercise have been analysed. Comments have been taken from what the simulation staff in the media and public play noted in Exonaut, and feedback has been collected from observers who were present at the selected organisations during the exercise. DSB also engaged media students to follow the exercise website during the

exercise. The greatest importance has been attached to the agencies' own evaluation reports. The last point in these reports concerned how the handling of communication in their own agency and the cooperation with other agencies with regard to this functioned. The evaluation concentrates on the first day of the exercise. This is because the need for information and the challenges were the most demanding at this time.

4.3.2 EXERCISE TOOL

Most of the communication from the authorities and organisations to the general public and media took place via a web portal for exercises that DSP borrowed from its sister organisation in Sweden, the Swedish Civil Contingencies Agency (MSB). The web portal represented the exercise participants' Internet and consisted of the authorities' websites, press with published online newspaper articles and TV broadcasts, as well as the Facebook simulator Xbook. Xbook is not identical to Facebook, and therefore there may be technical exercise factors that affected the use of the channel by the authorities, but no information on such instances has been received.

To practice the use of Twitter, accounts were created on twitter.com for the authorities, media channels and the "general population". The settings for each account were set so that only "followers" could read the twitter messages. Then it was ensured that only participants in the exercise followed each other. In practice, this functioned as a closed twitter group. For the web portal and twitter, read-only accounts were also created for participants in the exercise who were not to have the right to publish. Contact



information on the participating organisations, authorities' communication departments and the press were distributed in the communication directory prior to the start of the exercise.

Coordination


Major adverse events entail a great need for information to the media, affected citizens, politicians, partners and others. Communication about the incident must be precise, provided at the right time, honest, uniform and coherent, and shall give the recipients a basis for reacting appropriately in the situation they are in. The overarching principles for good crisis management: responsibility, proximity, equality and cooperation apply correspondingly to information as to other elements of crisis management. Handling the media and the overall need of the general population for information on the incident is included in this.

“Crisis communication is also about giving the population fast and specific information that enables them to handle an adverse event in the best possible manner. Communication should illustrate responsibilities and coordination of authority and advise how those affected can obtain additional information and possible help and support. The responsibility for crisis management lies with the organisation that is responsible for the field in a normal situation (Central Government Communication Policy, p. 18 (Ministry of Government Administration and Reform 2009)).

During the exercise, a great deal of concern was registered early on in the media and social media concerning what one should do if one was in the vicinity of Sjursøya. There were concerns about how hazardous the smoke was and what one should do to protect oneself from the hazards.

On Xbook, information on how the general public should deal with the incident was published first in English. It was published at approximately 10:30 hrs. The British Embassy then published information as a response to questions asked on their Xbook page. The City of Oslo also published relevant information that concerned the implementation of the evacuation of the city districts and information on the affected day care centres. The municipality was perceived as being somewhat reactive, since they mostly answered direct questions. It also appears as if the general population was quite satisfied with the information they received from Ruter. On Xbook they distinguished themselves, together with Statoil Fuel and Retail, as one of the most proactive organisations with regard to sharing information.

With regard to the news broadcast at 11:00 hrs, two hours after the accident occurred, one of the observers wrote: “There is very little information concerning the people who are in the vicinity of Sjursøya. No one who lives there knows how they should deal with the situation and whether there are hazardous elements they must take into consideration. Hence they do not know either whether it may be necessary to evacuate the area. How will schools, day care centres and traffic be affected? We still do not know anything about this. If one is requested to evacuate



Småbarnsmor

☆

ØVELSE-ØVELSE-ØVELSE Jeg prøver fortsatt å komme meg tilbake til barnehagen og hente barna. Vil ha dem lengst mulig bort fra Sjursøya. Kan det smelle igjen? Jeg er kjemperedd.

2015-04-28 09:38:26

COMMUNICATION WITH THE MEDIA AND POPULATION

– do people know what they should do? How can one get out of the city? Is it dangerous to breathe in the air? Should I collect my child from school right away?” At 11:30 hrs an important message was conveyed from the police in the news broadcasts. They encouraged people to stay indoors and to close their windows.

In addition, the first message on Twitter that was relevant to the general public was posted at approximately 11:00 hrs. The messages were from the City of Oslo and the Oslo Police District: “Accident at Sjursøya: The police request that the general public remain indoors”.

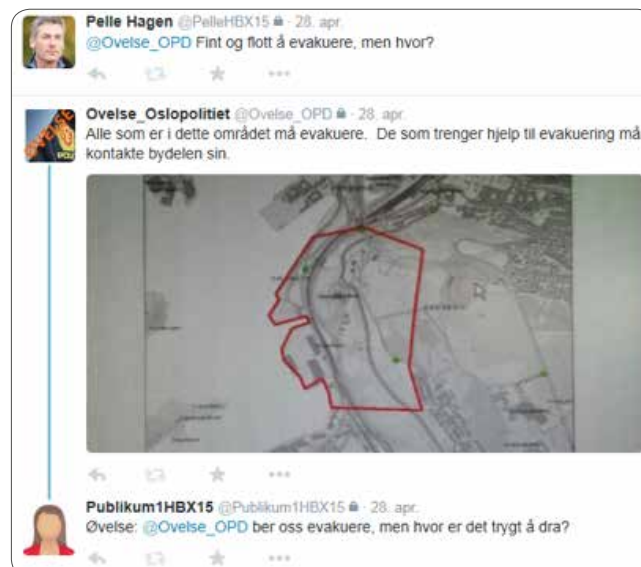
The coordinated messages did not arrive until around 14:00 hrs. Some examples include the Oslo Fire and Rescue Department distributing the telephone numbers for assisted evacuation for the various city districts. The Norwegian Directorate of Health was on the scene a little bit earlier, posting messages concerning the police’s family centre, that one should not drive into central Oslo and that everyone in Oslo must close their windows, among other things.

The authorities who published information first have something in common: They possess information in their own limited area of responsibility. The fact that they are not as dependent on coordinating this information with other agencies can to some extent

explain why they are the first to communicate. We see therefore indications that the coordination of information is challenging, and that the lack of efficient cooperation delays the communication. One agency acknowledges: “In this incident, as in most other crises, we are dependent on others in order to communicate well!”

Even if the cooperation functioned satisfactorily for some, several agencies described that they had problems coordinating their message. This prevented them from providing information early on, which, if given in time, could have enabled the population to react more appropriately. There are several reasons why the coordination did not function. Several agencies stated that they could not establish contact with the communication departments of other agencies:

“Ruter attempted to coordinate their message with the police communication staff, but they cannot establish contact”/ “We attempted to establish contact with other actors in between, but there was little response”/ “Cooperation with the Norwegian Institute of Public Health, Norwegian Directorate of Health and other enterprises did not function so well”/ “Cooperation on messages with other organisations that were involved functioned poorly during the exercise due to the lack of communication with the City of Oslo and the police.” / “We made several attempts to be



proactive by obtaining information ourselves, but this proved to be difficult”

In the evaluation reports, several possible explanations were mentioned for why coordination did not function optimally. Some authorities wrote that they had a liaison, but that they were not able to utilise this resource due to misunderstandings and uncertainties. Others relate that they possessed information others could have benefited from, but that it proved to be difficult to share the information, and that relevant agencies did not ask for such information either. The actors describe that the reason for this appears to be the lack of understanding of what relevant information other agencies may have.

The result of this is that the general public does not receive the information it requires in order to react appropriately. One of the observers who followed the information on the exercise website writes: “Common to the communication channels is the fact that there is very little information on the crisis. Only information that is not necessary is provided. We are told how many people have been injured and what emergency preparedness resources have been deployed, but this information is not adequate for how one should deal with the situation if one is in the surrounding area.”

The consequences of information arriving too late, or not containing enough relevant information, may be decisive for how demanding the operative task will be. During the exercise the City of Oslo conducted an actual “count” of all the phones that were located in the evacuation area. They obtained a list of the number of mobile phones that were connected to the base stations of Netcom and Telenor in the area in question. This gave an indication of the population number and density. They counted 23,727 phones. If the population starts evacuation without adequate information on when, where and how, the situation could become chaotic. Early and relevant information from the authorities can contribute to saving lives and people’s health, provided that the information enables the population to act and react appropriately in relation to the situation they are in.

4.3.3 ROLES

The emergency services deployed substantial resources at the incident site in order to get the fire under

control and extinguish it. Here the work is operative, and the focus is on efforts to save lives, health, the environment and limit damage. The police are responsible for information on the situation at the emergency response site being communicated to the population and the media. It can appear as if the police concentrated on information to people who were in the vicinity of the accident site during the exercise, while the population located far from this area also expressed concern. These were people who could see the smoke, had family members who were in the vicinity of the accident, read about the dramatic incident in the media, were incorrectly informed or for other reasons were worried.

Particularly for incidents that have similarities with scenario one and two in the exercise, hazardous smoke in densely populated areas and the evacuation of large areas, it is also important to have fast, good and reliable information on how people in the surrounding areas should deal with the situation. This can contribute to reducing harm to life and health.

4.3.4 COORDINATION

During the exercise most of the authorities requested that the population follow information from the police, and they encouraged the general public to follow the police twitter account and official website, and in the media. This shows that the authorities are aware of the responsibilities for handling an incident. But this is a challenge when the population desires information on the situation and ask questions to the wrong authority and another channel than what the authorities use in their communication. For example, several authorities were challenged to answer questions about how one should deal with the smoke as a resident. Should one close the windows? Evacuate? Collect children at the day-care centre? Visit a doctor?

Different practices by the authorities to solve this challenge during the exercise were identified. While the majority only referred the population to other authorities and their communication channels, others gave the information the population required based on information already published by the responsible authority, at the same time as they referred them to the proper authority and channel. This is considered appropriate. This challenge is reinforced by the fact that the police force has made

a differentiated choice of channels for the publication of their information. “In this case, the police use of twitter was well-organised, while the general public was primarily on Xbook”, one agency writes. Can it be that the authorities who do not answer the questions, but only refer the population to other agencies, do so because it has not been cleared with the police, or others, what information can be released?

One example of this problem, where a person contacted the “wrong” agency, time was critical and the police possessed the information, has been taken from one of the evaluation reports: “There is also reason to reflect on the fact that we could not answer inquiries about the traffic situation, but referred them to the police (...) On Twitter there was a case about what one should do if one had to evacuate the vehicle one was sitting in. These were inquiries that should have been addressed to the emergency services. They were demanding and unfamiliar to handle for us because they are characteristic of a situation that is critical with regard to life and health.”

The problem is reinforced by the fact that the number of authorities and underlying agencies in Norway makes it complicated for the population to know what sector, agency, at what level, and in what channel questions and concerns should be addressed. Observers that followed the exercise website point out that it was difficult to deal with all the different agencies. “People wonder WHO is actually responsible and who one should deal with”. One of the authorities writes that “information that was published by different actors was at times unclear and contradictory. The city districts experienced therefore that to some extent they did not dare act due to an unclear understanding of the situation, and therefore it is likely that this also applies to the general public.”

To ensure that important information reaches as many as possible, the responsible authorities, police and health authorities, should have a close dialogue and distribute their coordinated messages to all the authorities involved. One of the authorities points out in its evaluation the need to have good agreements in advance with other agencies in order to ensure a coordinated message.

The police explained that they have a high level of demand during the acute phase. The Oslo Police District allocated special resources to contacting

cooperating actors in order to coordinate the communication. They nevertheless see a need for the authorities to take a closer look at how the various actors should be able to reach each other in the most hectic phase.

Kriseinfo.no did not participate during the exercise, but could have probably contributed to distributing information efficiently. They have a presence on their own website and on Twitter and Facebook, and they have pre-approved agreements with most of the relevant authorities. It is nevertheless important to stress that kriseinfo.no links to already published information, and that the responsibility for informing lies with each individual agency.

4.3.5 SUMMARY

The main conclusion in the evaluation of the authorities’ handling of communication with media and the population is that the authorities should have provided information on the incident relevant to the general public earlier. Information to the population on how the population should deal with the cloud of smoke, whether it was dangerous, how people should evacuate and to where, was released too late. One agency writes in its evaluation report: “We should have been even better at getting decisions on a preventive message out to the population – in order to prepare them for a possible evacuation.” Another agency writes: “Information to the population was probably released too late.” In addition they write “(...) and the information did not answer the real questions that people had well enough: – Where is it hazardous? – Who will be evacuated? – What do these substances do to us?” Yet another agency writes “(...) improvement points have been identified with regard to getting information quickly to the general public and partners.”

The authorities should look at how they can strengthen the lines of communication between the communication departments. It is also recommended that the authorities prepare routines and agreements that ensure efficient communication between the authorities during incidents, so that they are better prepared to coordinate their messages.

CHAPTER

05

International
assistance and
Host Nation
Support (HNS)



INTERNATIONAL ASSISTANCE AND HOST NATION SUPPORT (HNS)

The aim of Host Nation Support during the exercise was to practice receiving international assistance during a major incident. In countries with strong crisis management structures, such as Norway, all the response efforts including international assistance, will be coordinated by the relevant authority and/or agency in the country. Incidents that are of such a magnitude that international assistance becomes necessary are rare, and therefore it was an exercise goal in HarbourEx15 that receiving international assistance resources should be practised. Austrian and Swedish firefighting crews participated in the exercise. Host Nation Support includes the structures that received and included the foreign personnel in the handling of the incident at Sjursøya.

The background for receiving international assistance being practised in HarbourEx15 is the fact that Norway participates in the EU coordination mechanism for civil preparedness, a system that enables European countries to request assistance resources from other European countries should the situation so require. In the HarbourEx15 exercise, it was an overarching exercise goal that this mechanism should be practised at all levels. Administration of the mechanism is placed under the Ministry of Justice and Public Security, and the operative responsibility for the scheme lies with the International Unit of DSB. In order to practice use of the mechanism on the part of Norway, a tabletop exercise was conducted prior to the actual exercise, in which the International Unit on behalf of the Ministry of Justice and Public Security and the Oslo Fire and Rescue Department sent out a request for assistance through the mechanism's crisis communication system, CECIS, and received offers for assistance resources from various countries. This tabletop exercise was carried out in cooperation with the Commission and all the member countries were invited to participate.

Two groups of foreign operative crews participated in the exercise at Sjursøya. A CBRN team from Austria and a USAR team from Sweden (Greater Gothenburg). The operative crews were met and assisted by a liaison from DSB and a representative from the Oslo Fire and Rescue Department.

An EU civil protection team (EUCP team) participated at an administrative level. This team represents the EU and the coordination mechanism for

civil preparedness in the affected country. The team's task during HarbourEx was to familiarise itself with the ongoing situation, be in dialogue with the national authorities and provide information about possibilities for additional assistance through the mechanism if the situation should escalate. The EUCP team was received and assisted by a liaison from DSB.

5.3.1 LEARNING POINTS FOR RECEIVING OPERATIVE PERSONNEL

A goal for receiving international assistance according to the Guide for Host Nation Support in Norway (2014) is that it shall be possible to include the assistance as smoothly as possible in the national response efforts. In order to achieve this, a liaison from DSB with a background in firefighting was appointed as a point of contact and support function for the foreign crews. The individual in question is part of a group of Norwegian experts managed by the DSB, trained through the EU system, and with varied experience in international response efforts during crises and disasters. The liaison assisted at border crossing and receiving at the base camp, and continued to be an available resource to the teams throughout their entire stay in the country.

The experience from the exercise was that the Swedish crews required little assistance from the DSB liaison or the administrative level. Contact was established directly between the Swedish firefighting crew and the Oslo Fire and Rescue Department, and the response efforts by and receiving of the Swedish resource was more or less optimal.

The crews from Austria brought a relatively large amount of personnel, vehicles and equipment with them. The Customs Service and the Port Authority were notified in advance that the crew was on the way, and DSB's liaison arrived at the port in advance and agreed on how the border crossing would take place. The border crossing is potentially the greatest obstacle or reason for delay when bringing in international assistance, and it is therefore important to have early notification, a good dialogue between the authorities, and that the requesting authority sending a liaison to assist with the border crossing.

However, the tags for the Austrian vehicles that are mandatory in order for heavy commercial vehicles to drive on Norwegian roads had not been acquired

well enough in advance. This meant that the Austrian vehicles could in theory be fined in the event of a possible control. This was, however, solved by DSB in dialogue with the Norwegian Public Roads Administration clarifying that the fines would be imposed on DSB and not the Austrian team.

Accommodation at the base camp and the inclusion of the Austrian crews in the handling of the incident did not present any major challenges. Feedback from both the Swedish and Austrian crews after the exercise have largely been positive. It is important technically with regard to the exercise that the scenarios are dimensioned to correspond to the number of personnel that are to practice.

5.3.2 LEARNING POINTS FOR RECEIVING EUCP TEAMS

In countries with strong crisis management structures, it is important that the EUCP team has a good understanding of its own role and at what level their contribution is of benefit. When the affected country's crisis management structures function, an EUCP team will be most beneficial at a general/strategic, and/or administrative level. From experience, the type of incidents that were included in HarbourEx15 in a country like Norway would not generate deployment of an EUCP team. When one was nevertheless required to practice with such a team, the challenge lay in balancing a realistic scenario with good exercise elements.

In advance of the exercise, there was good experience with hand-picking experts for the EUCP team with the right expertise and comprehension for handling a major crisis in a country such as Norway. In addition, it emerged that good briefings on the national structure and the HNS system are important in order for the team to be able to function well. It was also experienced that it is necessary and important to inform national actors early on that an EUCP team is on its way, what tasks they will be performing, and how they will function, in order to avoid creating unnecessary confusion in a demanding situation. Advanced planning of meetings with central actors functioned well during the exercise, and this contributed to the role and task of the EUCP team becoming better known among the relevant actors. It is nevertheless not certain that this type of meeting activity would be possible to carry out

as well during a real incident. The EUCP team was supported by a TAST team (Technical Assistance and Support Team). This functioned very well, and there was a bonus effect with regard to translating the task in national media.

The EUCP team linked up early with the EU delegation to Norway, and they were given an opportunity to work from the delegation's offices. This resulted in many positive synergy effects. The liaison function from DSB functioned well, and the individual here was also taken from the group of Norwegian EU experts. It proved to be very important that the team has a liaison who is familiar with both the coordination mechanism and the national system, and who can help the team manoeuvre through the landscape. The team on its side must be prepared for their role and task being unknown to many national actors and that they will therefore have to use time to sell their tasks to the relevant authorities. This can be accomplished by the team having a long-term perspective and submitting proposals to the relevant capacities that may be beneficial. The team must also be available as a supporter for the operative personnel that arrive through the mechanism, but also here primarily at the administrative level as well. The team must strive to be transparent in its work and reports, and make an effort to show member countries that international assistance is sensible and beneficial. It may be difficult for an EU team to adapt to the national crisis management structure, and one can assume that this will be even more difficult during a real incident than during an exercise. It is therefore important that the team is supported by a liaison who is continuously in close dialogue with the standby function of the International Unit of DSB. In this manner, the EUCP team can build a bridge between the coordination mechanism and the European Commission on the one hand and the affected country's national crisis management structure – actors on the other.

CHAPTER

06

Planning and
execution –
experience



6.1

PLANNING PROCESS

HarbourEx15 engaged the organisations in advance of the exercise through participation in the planning process. Just under 100 persons were gathered together through three major planning conferences and there was extensive syndicate work between these.

Each group/syndicate was led by a syndicate leader who had responsibility for development and progress. In addition, there was a Core Group, which consisted of the leaders of each syndicate. The planners also had a responsibility for anchoring the principal objectives of the exercise in their own organisation, and to see where there was a need for interaction in advance of the exercise.

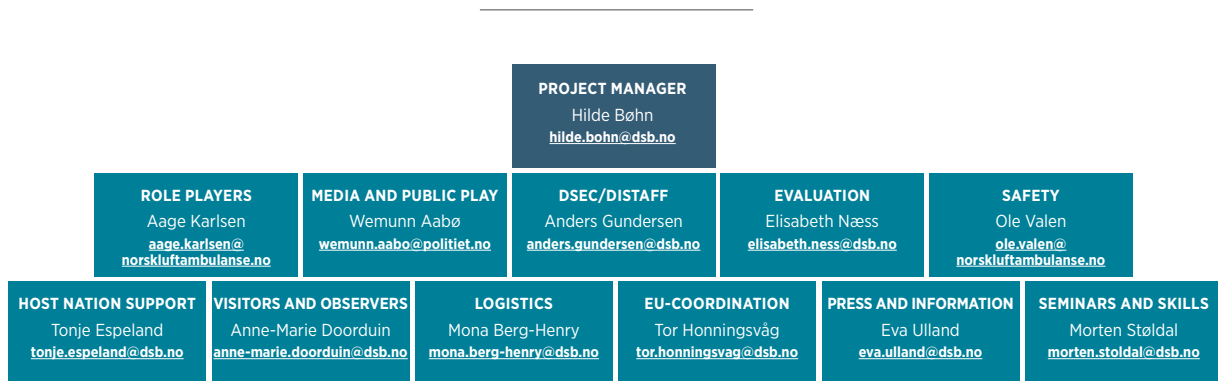


FIGURE 4. Overview of the working groups in the planning process.

The planners have responded to three electronic questionnaires during and after the planning process. The responses will be used for work on the organisation of future exercises. Knowledge of the

experiences from the planning process is useful knowledge not only for the planning of exercises, but also for emergency planning in general. This is illustrated by this diagram:

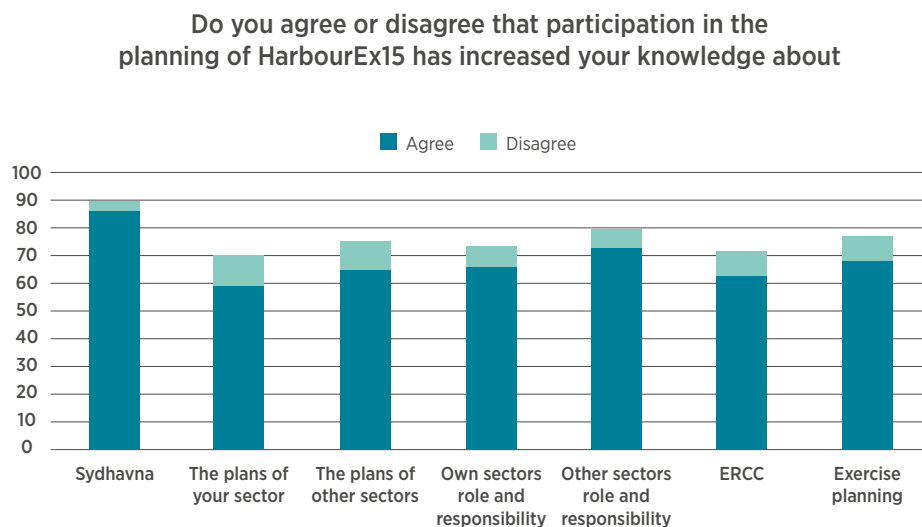


FIGURE 5. Overview of actors learning outcome.

(The remainder (up to 100) have responded “unsure” or “neither/nor”).

An overwhelming majority have gained greater knowledge of Sydhavna, the activities there, and the safety and risk assessments related to Sydhavna. In addition, participation in the planning process has given the planners greater knowledge of the plans of their own organisations and the plans of cooperating agencies. In many cases, the plans have also been adjusted or changed as a result of the preparations for the exercise. Participation in the planning process also provides greater knowledge of their own agency’s responsibilities and role, and just as importantly: 65 per cent answer that participation in the planning process has resulted in greater knowledge of the cooperating agencies’ responsibilities and roles.

Participation in the planning process has also increased knowledge of the EU crisis support mechanism

ERCC, which not so many people are familiar with in daily life. And finally, knowledge of exercise planning is an important element for committed planners.

The planning of the exercise has had a major focus on learning throughout the entire planning process. The goal of the project has been to survey findings and improvements that are made to plans, routines and guidelines, in order to illustrate learning in the planning process. Several agencies have carried out extensive work prior to the exercise to improve and prepare new plans in cases where deficiencies were identified.

Content of working meetings

It is important to start the planning early. Having enough time means greater benefits can be gained and responsibilities, roles and expectations can be clarified. However, clearer descriptions of roles/ functions in the planning are sought. A description of the tasks of the various syndicates and the leaders’

PLANNING AND EXECUTION – EXPERIENCE

functions is under preparation. This must be communicated clearly in the next planning process. One experience is also that if the individual sitting in the planning group does not have a mandate to make any decisions on behalf of his own agency, an unnecessary amount of time is used on decisions that should have been made more quickly.

The planning conferences should be arranged as working meetings to the greatest possible extent. The conferences in advance of HarbourEx15 managed to satisfy this to a large extent, even it felt as if there were some “conference tourists” present, who did not have much to contribute. It is therefore important that there are requirements for preparations in advance of the meetings. Such expectations must be described. In addition, continuity in the planning resources is particularly important.

The Core Group meetings proved to be of decisive importance. Progress in the planning process is dependent on knowledge of what the other syndicates are doing and the status of the work. The clarifications of responsibility made in this group were of great importance to the execution of the exercise. It is therefore important to ensure that every one of importance to the progress of the exercise is in the Core Group.

HarbourEx15 brought together three major national exercises into a single exercise: the National Police Directorate’s rescue exercise LIV, the Norwegian Directorate of Health’s national health exercise and DSB’s national civil exercise. When several major exercises are merged, the main actors must jointly describe the introductory exercise directive / exercise specifications and jointly agree on the introductory scenario/premises for the exercise.

Coordination at the overall level is essential. Each sector must coordinate its own exercise goals and elements so that it will be possible to coordinate the principal objectives. The exercise directive shall be prepared in advance of the exercise, and the exercise goals shall be anchored in the management. This is also important to ensure that each agency sets aside resources as agreed. During the planning process, there appeared to be some conflicting interests and challenges connected with many sometimes divergent goals, but this was gradually resolved precisely through work in the Core Group.

The attainment of “complete” representation from the various specialist groups should be sought in the planning and management of exercises. For example, the health service (Oslo University Hospital) this time lacked adequate continuity and complete representation from certain specialist groups through the planning work. Continuity in the exercise management is also of decisive importance. Replacement of the syndicate leader resulted in misunderstandings and lost time in the planning.

When substantial resources are deployed in an exercise, a benefit corresponding to the effort is of course expected. It is easy to become focused on one’s own goals for the exercise and what one’s own organisation would like to test and practice. If this overshadows the principal objectives, it will have major consequences for the participation of other organisations, and the point of major coordinated exercises is somewhat lost then. It is precisely coordination and the cross-sectoral aspects that are to be practised in full-scale exercises such as HarbourEx15, and it is important to see that everyone is just a pawn in the game to achieve the best possible coordinated whole.

Resources for exercise planning are taken from a number of budgets, which collectively represent the budget for the exercise. Cuts in an organisation’s budget can thus have consequences for the exercise and affect the whole process. It is difficult to plan if you have to take budget cuts into account or if too few resources have been allocated to contribute in a good way.

There must be realism in the exercises. The point of departure for HarbourEx15 was a concrete order after the Sydhavna Report, which was a safety review of the area. One of the conclusions in the report was that there were fragmented responsibilities and insufficient comprehensive risk management. The follow-up of this report was placed in the context of the exercise, which provided good results in the form of planning meetings and dialogue on safety, HSE and other plans prior to the exercise. The understanding of why one should think about risk assessment has been very good this time. This is important work that must be done thoroughly, but without it being too complicated.

In the self-evaluation of the Core Group, it was concluded that there was a good distribution of roles



Photo: Fredrik Naumann/Felix Features.

and responsibilities throughout. Even if the need for a clearer description of the various functions was pointed out, and what responsibility they have in the planning, in the Core Group there was good interaction and a common understanding of the many problems.

As mentioned, it is important to focus on the totality and coordination. The planning process can control this to a greater extent than at present. A thorough identification of which agencies and organisations become of significant importance in the exercise and have a decisive importance to the whole should be carried out. In hindsight, for example, it can be maintained that the City of Oslo should have had a stronger presence in the planning of the exercise.

Having all the syndicates participating from the start is important. It is difficult to start work on the media and public play and communication before the scenario has been developed, but it is nevertheless necessary that they take part in anchoring the resources that will participate in the planning/execution.

Execution by the simulation staff

During the execution of the exercise, there was a clear distribution of roles in the simulation staff. Everyone had communication available, and it functioned well. The fact that a sort of dress rehearsal was held the day before the exercise was useful, and perhaps part of the key to a well-functioning simulation staff. Good facilities that were well-suited for cooperation in offices that belonged to the City of Oslo were essential to the execution.

There was a calm, positive atmosphere in Distaff for most of the day. The situation was a little tense during the initial hours when it was hectic and a lot to do for some of the agencies at the incident site, perhaps for the fire department in particular. Management by the leader of Distaff was clear and focused. During the briefings, clear messages were given about what they expected to have answers for in the next briefing. This applied in particular in cases where some of the agencies reported something that was unclear, and in connection with the fact that some of the agencies were not fast enough to check

PLANNING AND EXECUTION – EXPERIENCE

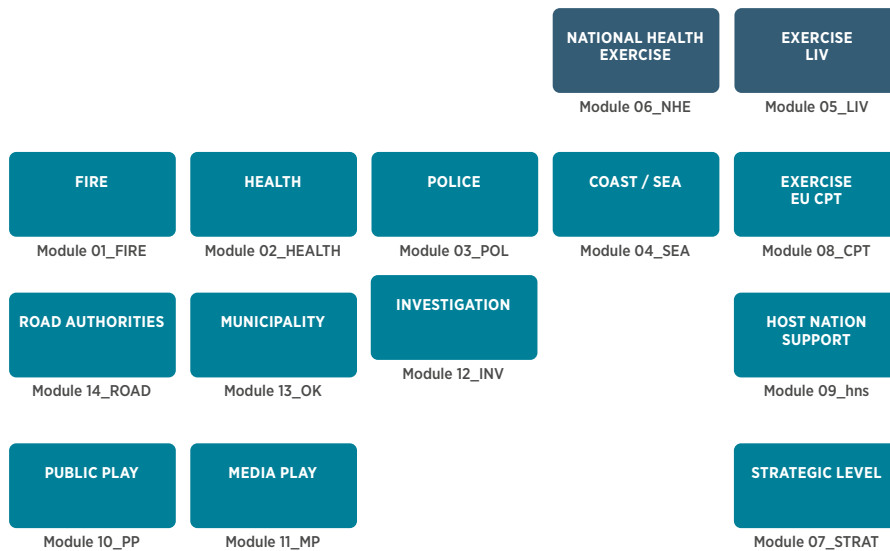


FIGURE 6. Overview of the different moduls in DSEC.

the injects (which was to be done through changing the colour code from “blue to green” where green = OK).

All the technical solutions appeared to function satisfactorily. The simulation staff appreciated the direct video transmission from the incident site. This made the exercise visible to Distaff, and it was also possible to follow some of what was taking place / did not take place at the incident site with their own eyes (not just via controllers at the incident site).

Certain injects were removed from Media & Public Play, since an adequate number of persons had not been assigned to call around and play family members etc. Two persons who were present in Distaff took on an extra job to call the foreign embassies to ask for missing family members so that these productions did not have to be deleted.

Waypoints functioned well to control production in the field in relation to the simulation exercise. There must be more stringent requirements for what is delivered to the Communication Directory. Preparing a good method for this should be considered. The need

for a communication directory coordinator should also be considered.

A short break was taken in the exercise at around 13:00 hrs, as a result of ambiguities concerning concepts. As the leader of Distaff formulated it: “Sometimes it is important to take a step back in order to know how to go forward”.

The use of controllers / local exercise leader functioned satisfactorily. But as the extended arm of the simulation staff in the field at the exercise site, it is decisive that communication between the controller and the simulation staff/management is optimal. Experience from Hx15 and other major exercises shows that this is a function that should be reinforced, preferably in the form of special training.

Experience from the use of various tools:

- Project Place:
 - Does not function with all firewalls. Complicated the exchange of information during the planning process somewhat for the police force.
 - Positive that there is a place where all the documents can be found.

- The police ask questions about the use of Project Place with regard to information security.
 - Need for more structure with regard to where the documents are stored. Need for special folders where only certain individuals should have access to the information. Level of the flow of information. Smart that one understands sharing information at different levels.
 - Structure the information differently.
 - More stringent requirements for use of the system.
- Exonaut:
 - A good tool for obtaining a good overview and control of the production.
 - DSB will start to explore opportunities to procure such a tool.
 - Opportunity to have it on a tablet is good.
 - Important that those who must use it, use it in the right way. This requires thorough training and a good advisor.
 - There must be an agency that is responsible for managing this.
 - Survey Exact:
 - Good experience with the use of this.
 - The text boxes to enter more detailed answers were too small.

6.2 EXPERIENCE FROM SEMINARS & SKILLS

To maximise the learning outcome for participants in HarbourEx15 during the planning, execution and after the exercise, a special syndicate was established to take care of this task. The goal was to facilitate attractive learning arenas within selected fields. The aim was to make a contribution so that the participants were better prepared to handle the challenges they were faced with during the exercise. The principal objective was therefore *to contribute to a greater learning outcome before, during and after the exercise for participants at the operative, tactical and strategic levels*. The syndicate consisted of 10 persons from the County Governor of Oslo and Akershus, DSB represented by Kriseinfo.no, DSB represented by the Norwegian Civil Defence, DSB represented by the Fire and Rescue Department, DSB represented by the Industry, Products and Hazardous Substances Department, CBRNe centre at Oslo University Hospital, City of Oslo and the National Archives of Norway. Three meetings were held with all the participants in the working group, and the areas of



Photos: Hege Støtvig/DSB

responsibility and tasks were distributed between the participants in the syndicate. This division of work functioned well.

Activities that were carried out:

- **Two breakfast seminars on crisis communication:** The topics that were presented were “Use of Social Media in Crises by the Ministry of Foreign Affairs” and “Handling of Information in Connection with the Forest Fire in Sweden in 2014”.
- **Professional day with exercise briefing for the operative personnel:** The programme included briefings on the general emergency preparedness plan for Oslo and Akershus, presentation of different types of enterprises at Sydhavna and their daily activities, handling of mass injuries and major accidents, role of the Maritime Rescue Coordination Centre in the event of major accidents. A review of the actual exercise was provided, and finally the aim and purpose of the overall evaluation before and after the exercise was presented.
- **Practical seminar over two days for GISD operators:** This was a workshop in which the practising agencies reviewed and worked on the need for map and information analysis for the exercise. Dispersion models, traffic management and area-based notification were among the topics that were discussed.
- **Questionnaire** on the participating organisations’ activities to prepare for the exercise
- **Questionnaire** on the benefit and learning effect of the arrangements

Goal achievement

The participants in seminars and skills found that arrangements in advance of the exercise contributed to a greater learning outcome from the actual exercise. These activities also placed focus on the importance of preparing for the exercise. Several organisations expressed that they had prepared better for this exercise than previously. Many who were to participate have reported that the specialist seminars were an important network arena and that they learned a lot about the role and sphere of action of other actors.

In the survey that was distributed after the professional day, 91% respond that they agree in full or in

part with the statement: *It think that the exercise HarbourEx15 will have a substantial learning outcome for society.* Almost everyone who responded to the questionnaire on the breakfast seminars was satisfied with the seminars, and 9 out of 10 *agreed or completely agreed* that DSB should arrange such seminars prior to future exercises.

The competence relating to the use of maps and GIS has also increased as a result of training prior to the exercise. The training and exercise contributed to identifying important problems related to the use of GIS during incidents. A need was identified to clarify responsibilities further; who is responsible for producing map information during an incident, and with regard to quality; how good is the prediction of these maps? It was also planned to arrange a shorter seminar/presentation of the opportunities and limitations for the use of GIS for leaders other than those who were involved in the exercise. This was unfortunately not carried out. It would be an advantage if both leaders at a higher level acquire insight into the opportunities provided by Geographic Information Systems. The syndicate hopes that such a seminar will be held in connection with other exercises.

It was planned to arrange a seminar/conference focusing on concentrated commercial activity and risk management, corresponding to the issues addressed in the Sydhavna Report. It proved to be difficult to arrange such a seminar/conference. The Industry, Products and Hazardous Substances Department of DSB works in this field and has plans for how they will address this problem in another manner.

Learning points

The Seminars and Skills syndicate is of the opinion that the general focus on learning and preparation has contributed to improving the quality of the exercise and increasing the benefit to those involved. We are of the opinion that major exercises should be arranged in this manner if learning is the aim.

It is resource-saving and efficient to select some specific topics to focus on prior to the exercise. These must necessarily be relevant to the theme of the exercise and in accordance with the principal objectives of the exercise. There is also a recommendation to divide the primary responsibility for the themes between individuals/organisations/actors in the



Photo: Fredrik Naumann/Felix Features.

syndicate to make the planning more efficient and ensure the quality of the learning.

The seminars that are arranged should be adapted to target groups, which increases the motivation to participate at the same time as it increases the participants' motivation for the actual exercise.

During the process, it is very important to have a close dialogue with the lecturers well in advance of holding the arrangements, so that the content of the specialist seminars is relevant to the target groups and stays with the theme of the exercise. In addition, it is necessary to anchor the arrangements adequately and with the right body before starting on further work. Anchoring it with the Ministry, Directorate and participating actors will ensure good participation, good introductory speakers and lecturers, and also increase motivation for the exercise.

6.3

EXPERIENCE FROM THE MEDIA AND PUBLIC PLAY

Those responsible for the media and public play were also responsible for the planning and execution of the media and public play. This included the publication of newspaper articles, direction of roving reporters, production of direct news broadcasts on TV, social media (Twitter and Facebook) and telephone calls from the population and journalists to the authorities. Extra resources were obtained from the Norwegian Armed Forces, journalism students and government agencies for carrying out the exercise. The purpose of the media and public play was to challenge the participating agencies with regard to their handling of information to the media and population. The goal was for the agencies to identify strengths and weaknesses in their handling, so that they could identify how they could be better in handling their communication during adverse events.

The goal of challenging the authorities' communication units in accordance with their respective exercise goals was achieved to a large extent. In particular, the social media play was pointed out as being good. This play is perceived as important since it functions as a driver for the media play in the exercise. News broadcasts were followed by 1065 unique users and the execution was good. Due to the lack of persons in the simulation staff, not all the productions were recorded. There are several reasons for the lack of resources, but it should have been recognised earlier that the need was greater than first assumed. Nevertheless, this did not affect the quality of the media and public play. The students who assisted during the execution delivered good work, at the same time one should bear in mind that it would have been a more realistic simulation if experienced journalists were used in the simulation staff.

Exonaut functioned well and the training was good, but it should have been provided earlier in the planning process. When the productions for the media and public play are created, provision should be made so that the deadlines are flexible. This is because productions by other syndicates for the exercise and scenario descriptions should be ready in advance of the work on productions for the media and public play. Such flexibility was provided in the planning of this exercise. The media website functioned well as an online newspaper, platform for Xbook and with links to Twitter and television broadcasts. Good training was provided in use of the website.

Experience from this major exercise indicates that the media play and public play should be divided into two syndicates. It is also important that the exercise management is clear about its expectations as to what the syndicate should deliver. This is to ensure that members of the syndicate are able to estimate the amount of work that will be necessary in the future, and so that this can be anchored with the syndicate's own leader. In addition, the organisational structure of the working group must be clarified early on in order to ensure that the leader of the syndicate is always up-to-date and informed about new information that is received by other members, among other things. The syndicate should also acquire knowledge of what tools they will be using during the execution of the exercise as early as possible. During HarbourEx15, the exercise management was good at providing quick clarifications for most

questions, which can be decisive for the progress of the planning process. The competence and experience that has been acquired from the planning of this exercise should be safeguarded and transferred to future exercises.

6.4 EXPERIENCE FROM THE MARKER AND ROLE PLAY SERVICE

Stiftelsen Norsk Luftambulans (SNLA) was asked by DSB to take care of the role-play service for the exercise. The original request was to obtain approximately 200 markers. Subsequent development of the exercise resulted in an order for 530 persons. During the first area of the exercise over 300 markers participated and played seriously injured persons or family members. On the second day of the exercise, 12 markers participated.

SNLA recruited markers from schools with ambulance programmes, colleges in the Oslo area with nursing programmes and several national organisations. SNLA invited the markers to a voluntary work event via Facebook, and the response was good. SNLA created a special registration website to provide an overview of the markers, and this was of decisive importance in order to keep track of all the registrations/cancellations. The evening before the exercise the number of registered markers had declined from 600 to 470, and on the actual day of the exercise there were 100 persons who had failed to cancel their registration and did not show up. There was a lot of interest in participating in the groups that were to play injured persons, but playing family members was less attractive and this is where the greatest drop-out rate was seen. It was positive that 33 persons registered for multiple tasks.

A great deal of effort was made by the make-up service, and both the fire and ambulance service, and especially the personnel at the trauma centres, were impressed by the quality of the make-up work and the acting of the markers. The make-up description and role-play description for the markers were



Photo: Fredrik Naumann/Felix Features.

prepared by the health service, and they were very extensive and good.

There were marker coordinators at Ekeberghallen, the family centre, trauma centre at the Oslo University Hospital Ullevål, Oslo Causality Clinic, Akershus University Hospital, Hotel Q33 and Hotel. The marker coordinators were to be a contact person that could give advice on the play tasks, ensure the safety of the markers, make adjustments and report to the main coordinator who was located at Ekeberghallen. The feedback indicates that this function was satisfactory in most cases, but some markers reported that they nevertheless lacked a contact person and that several of them who wanted to quit were not able to. It is also evident that there have been some communication problems that have resulted in the markers not being collected, saved, evacuated or able to participate in the exercise. There are many who report unclear instructions, a lot of

waiting and several hours without any food or drink. When the volunteers are asked to set aside a whole day for an exercise, it is the organiser's responsibility that all the markers receive this and feel that they are being taken care of.

In addition, there are major differences in the feedback from the markers with regard to information. The markers are largely satisfied with the information they received before the exercise, but the expectations for the markers could have been communicated more clearly. This also applies to the expectations for the exercise participants; several of the markers state that they were requested to "stop playing". Markers that were supposed to play foreigners were asked to speak Norwegian, for example. The purpose of using markers in the play is precisely to create a realistic exercise, and communication problems at an



Photo: Fredrik Naumann/Felix Features.

incident site can precisely be a challenge that many of the exercise participants may encounter. The health service must deploy more resources to ensure the most realistic performance possible by the markers. There was a lot of overacting, which combined with the fact that injury tags went missing (washed away), made assessment of the patient's difficult or unrealistic and far too many markers ended up at the wrong treatment location.

The positive reports from the markers in general refer to the fact that they felt that they were well taken care of and that it was fun to participate in such an exercise. Several of them also point out the good treatment and effort by the actors and the majority of the markers felt that they were well taken care of by all the actors.

6.5

EXPERIENCE FROM THE OBSERVER PROGRAMME

The purpose of the observer programme was to make the exercise available to a larger audience than those who participated directly in the simulation. The observer programme encompassed briefings on the exercise (collective term for HNS/NST, CBRN) and an excursion in which the guests were given an opportunity to experience the ongoing rescue operations. All the observers were accompanied by guides to provide updated information on the exercise.

A total of 150 persons participated in the observer programme for HarbourEx15, including the Justice and Public Security Minister Anders Anundsen, Minister of EEA and EU Affairs Vidar Helgesen, EU Ambassador to Norway Helen Campbell, Director General of Health Bjørn Guldvog, National Police Commissioner Odd Reidar Humlegård and others. There were also several observers from the EU and other international communities. In total, the observer programme consisted of four different groups, which had different programmes for the exercise days.

Overall, the observer programme consisted of information on the exercise, visit to the Oslo Town Hall with a briefing on the city's emergency planning agency, guided tour of Sydhavna, briefing on the scenarios for the exercise, guided tour of the HNS camp at Ekeberg, observation of rescue at sea and the accident at Grønliia, and observation of the oil spill and clean-up operation.

Experience from the observer programme for this exercise indicates that showing guests how an exercise can be simulated and providing an opportunity to inform about various forms of cooperation between the international actors is an important component. However, there were many participants in the observer group with sometimes very different backgrounds and desired learning outcomes. There were, for example, operative persons from the health, police and fire services, municipal employees, executive officers from various ministries, persons who work at foreign embassies in Oslo and persons from various EU countries. Some of them



Photo: Fredrik Naumann/Felix Features.

were interested in the practical handling within their own fields, others were interested in cooperation, and others again in the technical exercise aspects, or the relationship between regulations and practice. Others would rather learn more about the international aspects of the exercise and the EU coordination mechanism, while everything was new and exciting for some. Thus it was difficult to fully meet everyone's needs. Information was also sought during the boat trip, where the intention was to demonstrate the boarding of a ship from a boat. Unfortunately the PA system failed, and the programme on the boat was very limited in relation to what had been planned.

In general, for the next exercise one should look at alternative ways of organising an observer programme. According to which guests are invited, one can “fine-tune” the programme somewhat and be clear about what problems one would like to illustrate. In addition, it is essential to have enough guides with the right competence so that one can achieve the goal of an informative and exciting programme. It is important to bear in mind that there can never be too much information given during exercises, especially in the field. Even if a lot has been presented in advance, it appears as if many do not completely understand the connections when they are out in the field. Certain feedback from participating organisations also point out that visitors disturb the handling. The visitor programme must always take this into account and be planned so that it does not “get in the way”.

6.6 EXPERIENCE FROM THE NORWEGIAN METEOROLOGICAL INSTITUTE

The Norwegian Meteorological Institute participated in the exercise with meteorologists, researchers and advisers, such that as an experienced actor the Norwegian Meteorological Institute could handle the challenges they were faced with in a good way. The meteorologists thought that the exercise was very useful, especially because they acquired good insight into how the various agencies work in a crisis situation. The Norwegian Meteorological Institute itself points out how the use of meteorologists in the field during exercises and incidents like the scenario in HarbourEx15 may be useful, since they can provide briefings/alerts in connection with acute pollution and provide dispersion calculations, for example.

Producing and delivering dispersion calculations for the current and simulation weather was a separate exercise goal for the Norwegian Meteorological Institute, and the experience of the researchers that participated in exercises is that it was very interesting to see what needs a number of central actors had for this information. As a result, the national emergency preparedness that is provided by the Norwegian Meteorological Institute as a specialist agency for meteorology has been strengthened significantly with regard to fire and spills in Norwegian areas. An important learning point for the Institute is that they will develop acute preparedness for the dispersion of spills, so that they can deliver calculations within 30 minutes and follow up with a briefing for the relevant actors.

The County Governor of Oslo and Akershus was a relevant actor during the exercise, and the Norwegian Meteorological Institute points out that it would be appropriate to cultivate contact between the Norwegian Meteorological Institute and the County Governor of Oslo and Akershus during such exercises and incidents.

Through the exercise, the Norwegian Meteorological Institute identified a number of learning points with regard to monitoring/briefing/alerting about weather in connection with acute pollution, and they write themselves that they will work on training and improving the capacity of their meteorologists and researchers so that they can deliver alerts and adapt them graphically to the needs of the various actors.

It is important that the Norwegian Meteorological Institute is involved in the planning early on, since weather information (where the current weather is the simulation weather) always appears to affect the simulation in several ways. In addition, it is the experience of the Norwegian Meteorological Institute that an early request for participation can ensure that the Norwegian Meteorological Institute reports the exercise internally and the need for resources as early as possible so that it can involve the technical competencies that are relevant for the exercise.

6.7

EXPERIENCE FROM THE DIRECTORATE FOR EMERGENCY COMMUNICATION

The Directorate for Emergency Communication did not participate in the actual exercise, but participated as an observer through analysing the traffic data in the Norwegian Public Safety Network. In addition, the Directorate for Emergency Communication has, through cooperation with the specialist directorates' national instructors, considered use of the Norwegian Public Safety Network during the exercise, which forms the basis for qualitative observations in the directorate's own report (Use of the Norwegian Public Safety Network during HarbourEx15, 21 September 2015).

Use of the Norwegian Public Safety Network

The instructors listened to voice groups during the exercise and made several interesting findings related to use of the Norwegian Public Safety Network during HarbourEx. Common voice groups were to

some extent used well by the emergency services on their way to the incident site during the call-out phase. In addition, there were several observations on how time-critical information should be distributed in all the voice groups (including the common voice groups) even after arrival at the incident site. This applies in particular to important messages concerning the safety of the emergency response personnel when evacuation of the incident site was decided. The instructors propose that it would be beneficial for future exercises to include exercise elements and exercise goals related to the use of communication. For example, the control of voice traffic in the voice groups, focus on correct function identification in internal agency and common voice groups when resources from other areas are brought in and clear control of when the Fire-Ambulance-Police-Cooperation voice groups are to be used, would be examples of such exercise elements. In addition, the emergency services should implement measures (in accordance with the "Common Communication Regulations for the Emergency Services and Other Emergency Preparedness Users" when congestion in the Norwegian Public Safety Network is experienced.

Capacity and voice groups in the Norwegian Public Safety Network

The Norwegian Public Safety Network functioned satisfactorily during the exercise, and there was a great deal of activity in the nine registered voice groups for the exercise. Between 09:00 and 14:00 hrs on 28 April there were a lot of busy signals experienced (congestion in the network) in the exercise area due to the fact that there were too many voice groups in use at the base station that covers Sjursøya. Such cases can result in short delays, but the voice groups still function. An analysis of the voice groups in use shows that the number of voice groups in use at Sjursøya was much higher than the number of registered voice groups for the exercise (a total of 47 voice groups were registered in use at the base station). Some of these voice groups are operative voice groups that were activated at Sjursøya due to the fact that operative personnel not participating in the exercise has been within the coverage area for the base station, possibly also because of irregular listening to voice groups from the exercise participants. At the same time, voice groups dedicated to technical exercise affairs were used, such as the exercise management, which were not registered with

the Directorate for Emergency Communication in advance. This represented a great burden, especially for the base station at Sjursøya. In other words it was not the use of the Norwegian Public Safety Network by the emergency response personnel during the exercise in itself that resulted in the capacity problems – but the total load the exercise represented, including the exercise management and safety communication, in addition to the fact that other voice groups were activated.

The fact that the base station at Sjursøya experienced peak loads also had consequences for other base stations – particular for the police, who use all-start (access for everyone in the voice group must be secured before the call is connected). This means that the congestion problems at Sjursøya also resulted in busy signals in the network for operative personnel elsewhere in the Oslo area. The rest of the exercise was carried out without any registered cases of congestion in the network.

Road ahead

The Directorate for Emergency Communication can contribute to a greater extent through participating in the planning phase of future exercises. By participating, the Directorate for Emergency Communication can advise the actors on what they should take into account concerning use of the Norwegian Public Safety Network during the actual execution. The Directorate for Emergency Communication can at the same time contribute with information on the capacity and radio coverage in the exercise area, risk elements due to the use of many voice groups and various functions in the Norwegian Public Safety Network, in addition to contributing to the preparation of a communication plan for the exercise that is based on various overarching communication regulations.

The Directorate for Emergency Communication can also participate during exercises by monitoring the relevant base stations and implementing measures according to agreed criteria as required, such as removing access for radios that are causing problems due to incorrect use, remove the ability to connect to the most important operative voice groups on the base station(s) that cover the exercise (if other base stations provide overlapping coverage for operative personnel that are not participating in the exercise).

For future exercises of this magnitude, the Directorate for Emergency Communication will consider upgrading base stations with extra capacity before the exercise if the base station is a candidate for increased capacity. Another measure can be implemented in consultation with the police. The all-start function can be turned off during the exercise to ensure that exercises do not interfere with normal operations. All of these measures are dependent on the Directorate for Emergency Communication being involved early on during the planning of such exercises. Even if measures such as communication planning and focusing on correct use can reduce the probability of congestion in the network, the available frequency bandwidth represents an upper barrier for increased capacity in the Oslo area. Major exercises such as HarbourEx shows the necessity for more bandwidth to be allocated to the Norwegian Public Safety Network in the Oslo area.

CHAPTER

07

Results from the
questionnaire
sent to all the
participants

RESULTS FROM THE QUESTIONNAIRE SENT TO ALL THE PARTICIPANTS

After the exercise, an electronic questionnaire was sent to all the participants. The data collection period was from 7 May to 31 May 2015. A total of 226 participants responded to the survey. The main findings related to the categories in which the response rate was highest and which are clearly what the participants were most interested in are reported here: responsibilities, roles, routines and plans; and communication, information and interaction.

Responsibilities, roles, routines and plans

Feedback in the category responsibilities, roles, routines and plans is based on the fact that the actors should have had better knowledge of and a better

understanding of their own roles and the roles of others, in addition to the fact that some roles must be made more clear. With regard to routines, it is important that outsiders are quickly familiarised with them. Some participants also report lacking routines and that routines have been changed underway without the changes being communicated well enough to partners. There have also been uncertainties concerning responsibilities, in a discussion which emerged between the police and ambulance personnel, for example. It is also mentioned as a challenge that not everyone is familiar with the necessary plans, that one cannot assume that the plans will be followed in a real crisis and that the crisis plans are unclear.

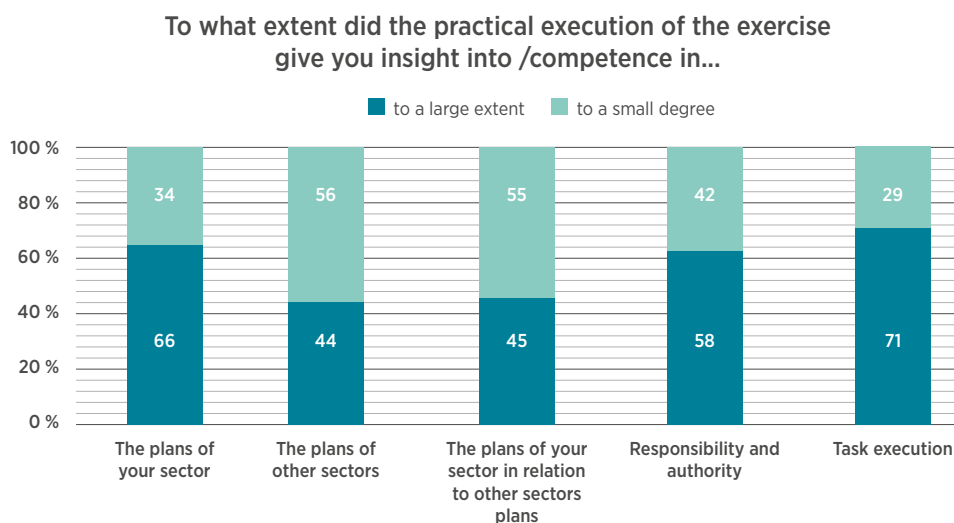


FIGURE 7. Overview of the actors learning outcome.

Communication, information and interaction

The largest category of feedback from the participants is information, communication and interaction. Here 40% have made comments. Many participants point out that the exercise was marked by the lack of information and a poor flow of information. This applies in particular between the actors, but a poor flow of information internally has also been reported. Several participants comment that they would like to see better or more comprehensive information prior

to the exercise or information afterwards about how the exercise has gone. Information sharing is also a recurrent topic, in which the participants report that there has been unclear, incorrect and contradictory information from different parties.

In the feedback concerning communication, poor communication between the actors is the most prevalent topic. Otherwise it is pointed out that communication is poor in general, that the lines of

RESULTS FROM THE QUESTIONNAIRE SENT TO ALL THE PARTICIPANTS

communication were not followed / are demanding and that instructions must be clearer. The participants' feedback on instructions is that they were lacking, unclear or contradictory. In some cases this resulted in the duplication of tasks.

The lack of coordination between the actors and poor communication of critical information are recurring topics. It is also pointed out that cooperation with other actors in an evacuation situation is unclear, that there is a need to practice interaction and that

the cooperation between the police and ambulance service was not optimal.

The participants report notices of meetings not being received, unclear instructions, lack of a common situation overview due to a lack of meetings, and that communication, information and interaction between the actors must improve. It is also mentioned that the situation at the family centre appeared to be chaotic, which may be the result of late or insufficient information, in addition to the lack of routines.

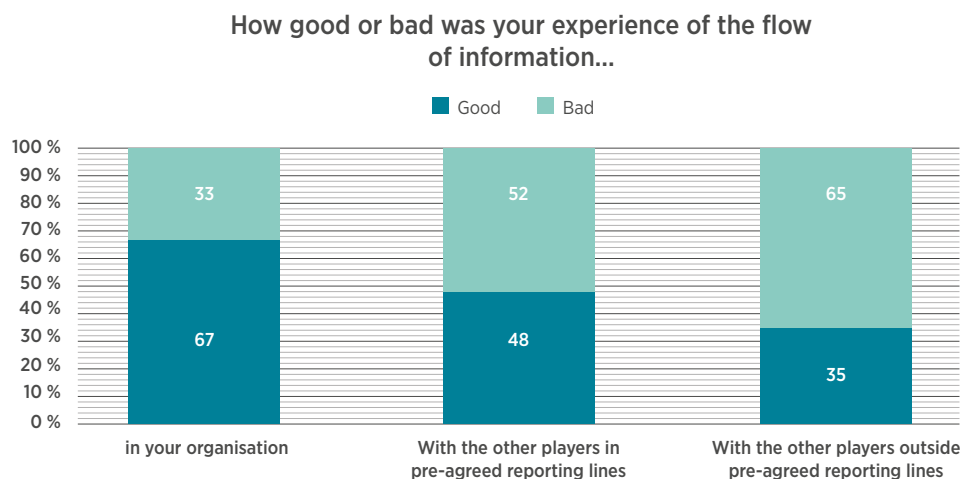


FIGURE 8. Overview of experienced information flow.

RESULTS FROM THE QUESTIONNAIRE SENT TO ALL THE PARTICIPANTS

With regard to the flow of information during the exercise, to what extent would you say that the following factors were present?

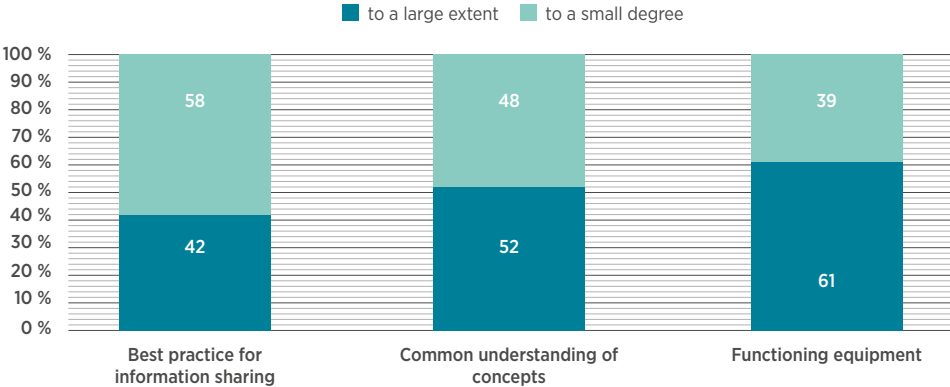


FIGURE 9. Overview of procedures , common understanding and technical equipment.

CHAPTER

08

Conclusion



CONCLUSION

The national exercise goals for HarbourEx15 were:

- To effectively control and extinguish the fire.
- To assess the need for and possibly initiate evacuation.
- To effectively control and minimise the damage of acute pollution.

Within these goals, the evaluation has assessed the notification and mobilisation of the emergency response / crisis organisation, the handling, management, organisation and communication between the agencies and actors involved, and crisis communication to the population.

Earlier evaluations show that testing whether the plans function as intended or if the organisation and information sharing is effective for handling the incident, is often a goal in itself. The challenge then is to see the totality and how coordination is decisive for ensuring that the task is carried out in a manner that achieves a desired result. Extinguishing fire, evacuating safely and appropriately and reducing damage are not just technical functions, but interaction and cooperation at several levels are also part of it. The question in HarbourEx15 was, as in so many other contexts, would the resources find each other?

The key to the answer lies in *communication*. It is about communication en route to, and at the incident site, and communication outside the incident site; the discussions, reports and decisions that must be made so that the tasks are carried out and solved.

Cooperation functions:

- when there is good communication in established channels

- when one is familiar with each other's plans,
- and when the equipment is in order.

Each and every organisation is concerned about doing their job and solving the tasks well. Therefore it is often such that each organisation is too concerned about their own exercise goals and where their own organisation wants to improve. At times this can lead attention away from the totality. Since it is coordination and the cross-sectoral aspects that are to be practised in full-scale exercises such as HarbourEx15, it is important for everyone to see himself as just a pawn in the game to achieve the full benefit from the exercise.

In carrying out all types of exercises, making the exercise as realistic as possible is a major challenge. This applies to access to resources, timing, roles, assessments, time pressure, etc. Even if we plan for the exercise to be as realistic as possible, we are not always successful – which may affect both the achievement of goals and evaluation. It is important to bear in mind how the subconscious and evaluations that are made are affected by the fact that we know that this is not really dangerous. In an exercise context, statements such as “had it been real I would have done it differently” can be heard. For the evaluation, it is a challenge to distinguish between what is a point for improvement and what was taken a little too easy because it was an exercise. A general observation is therefore that one should always and at all levels strive for the greatest degree of realism in words and actions in an exercise context, so that the evaluation can take for granted that the actions performed were performed as they would have been in a real situation. This will give the evaluation, and thereby the exercise, greater value.

Appendix

APPENDIX 1: PARTICIPANTS

- National Police Directorate
- Oslo Police District
- Norwegian Directorate of Health
- Norwegian Institute of Public Health
- Norwegian National Rail Administration
- Norwegian Public Roads Administration
- Directorate for Emergency Communication
- Norwegian Coastal Administration
- Maritime Rescue Coordination Centre
- Norwegian Directorate for Civil Protection
- Civil Defence
- Statoil Fuel and Retail
- Uno-X
- Yilport Holding Inc.
- County Governor of Oslo and Akershus
- South-Eastern Norway Regional Health Authority
- Oslo University Hospital
- Akershus University Hospital
- Norwegian Meteorological Institute.
- Norwegian Armed Forces, including the Norwegian Coast Guard
- Affected ministries
 - Ministry of Justice and Public Security and the Emergency Support Unit (KSE)
 - Ministry of Foreign Affairs
- European Commission
- EU Civil Protection Mechanism's Monitoring and Information Centre
- Delegation of the European Union to Norway
- Swedish Civil Contingencies Agency
- Greater Gothenburg Fire and Rescue Service (RSG), Sweden
- Upper Austrian Fire Brigade Association, Austria
- Crisis Management Centre, TAST Team; Technical Assistance Support Team from Finland
- American, Canadian and British embassies
- City of Oslo:
 - Emergency Planning Agency
 - Agency for Urban Environment
 - Agency for Fire and Rescue Services
 - Education Agency
 - Department for Health and Social Services
 - Agency for Health
 - Causality clinic
 - Port of Oslo
 - Nordstand District
 - Gamle Oslo District
 - St. Hanshaugen District
 - Ruter

APPENDIX 2: QUESTIONNAIRE ANSWERED BY THE EVALUATION CONTACTS ON BEHALF OF THE ORGANISATIONS

OVERALL EVALUATION OF HARBOUREX15

Introduction

This questionnaire has been sent to all the organisations that participated in the exercise, and it is an important source of data that will be used as the basis for analyses and conclusions in the overall evaluation. To answer the questions, whoever the evaluation contact is must see to it that information is obtained that provides a satisfactory answer on behalf of the organisation.

The form consists of three parts: Part 1 is about the overall achievement of goals, Part 2 is about how the organisation evaluates the contribution of other organisations to their own crisis management and Part 3 is about an evaluation of the organisation's own contribution.

The organisations are requested to submit their responses by **29 May** to the Evaluation Syndicate:
elisabeth.ness@dsb.no

If there are questions about the evaluation or the follow-up of this in HarbourEx15, they may be addressed to:

Elisabeth Næss, elisabeth.ness@dsb.no, phone: +47 33 41 27 13 mobile: +47 92 62 89 06

Camilla Elseth, camilla.elseth@dsb.no, phone: +47 33 41 28 57 mobile: +47 92 83 03 22

APPENDIX

PART 1 EVALUATION OF THE OVERALL ACHIEVEMENT OF GOALS

All in all – How well were the Goals achieved – on a score of 1 to 6 for each goals, where 1 is very poorly and 6 is very well.

- *Effectively controlling and extinguishing the fire, as well as handling the consequences at the incident site*

1 2 3 4 5 6

- *Assessing the need for and possibly implementing evacuation of the affected city districts in Oslo*

1 2 3 4 5 6

- *Effectively handling the consequences of the grounding in the Oslo Fjord*

1 2 3 4 5 6

PART 2 EVALUATION OF COOPERATING ORGANISATIONS

Notification and mobilisation

Describe how the organisation was notified and whether the notification enabled the organisation to mobilise in an appropriate manner:

Reporting

Describe how situation reporting and information sharing contributed to the organisation being able to handle the situation in an appropriate manner:

Responsibilities and roles

Describe how the principles of responsibility, proximity, equality and cooperation applied to the crisis management:

Evaluation of the actors in the exercise

All in all – how will the organisation assess the contribution of the following cooperating organisations – score from 1 to 6, where 1 is very poorly and 6 is very well (results will be compiled and not presented individually for each organisation).

National Police Directorate

1 2 3 4 5 6 Not relevant

Oslo Police District

1 2 3 4 5 6 Not relevant

Norwegian Directorate of Health

1 2 3 4 5 6 Not relevant

Norwegian Institute of Public Health

1 2 3 4 5 6 Not relevant

Chief Governor of Oslo and Akershus

1 2 3 4 5 6 Not relevant

APPENDIX

Norwegian Directorate for Civil Protection

1	2	3	4	5	6	Not relevant
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Oslo University Hospital

1	2	3	4	5	6	Not relevant
---	---	---	---	---	---	--------------

Akershus University Hospital

1	2	3	4	5	6	Not relevant
---	---	---	---	---	---	--------------

City of Oslo

1	2	3	4	5	6	Not relevant
---	---	---	---	---	---	--------------

Agency for Fire and Rescue Services

1	2	3	4	5	6	Not relevant
---	---	---	---	---	---	--------------

Norwegian Coastal Administration

1	2	3	4	5	6	Not relevant
---	---	---	---	---	---	--------------

Maritime Rescue Coordination Centre

1	2	3	4	5	6	Not relevant
---	---	---	---	---	---	--------------

Norwegian Civil Defence

1	2	3	4	5	6	Not relevant
---	---	---	---	---	---	--------------

Norwegian National Rail Administration

1	2	3	4	5	6	Not relevant
---	---	---	---	---	---	--------------

Norwegian Public Roads Administration

1	2	3	4	5	6	Not relevant
---	---	---	---	---	---	--------------

Directorate for Emergency Communication

1	2	3	4	5	6	Not relevant
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Statoil Fuel and Retail

1	2	3	4	5	6	Not relevant
---	---	---	---	---	---	--------------

Uno-X

1	2	3	4	5	6	Not relevant
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Yilport Inc

1	2	3	4	5	6	Not relevant
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Norwegian Meteorological Institute

1	2	3	4	5	6	Not relevant
---	---	---	---	---	---	--------------

Norwegian Armed Forces, including the Norwegian Coast Guard

1	2	3	4	5	6	Not relevant
---	---	---	---	---	---	--------------

Affected ministries and Emergency Support Unit (KSE)

1	2	3	4	5	6	Not relevant
---	---	---	---	---	---	--------------

APPENDIX

PART 3 EVALUATION OF THE ORGANISATION'S OWN CONTRIBUTION

Plans and procedures

Describe what functioned well and what functioned less well with the organisation's handling of the situation:

(What was the reason things went well or less well? How did the plans, procedures, equipment and facilities function?)

Liaison

If the organisation used a liaison, describe how this function was fulfilled:

CIM – Use and effectiveness

If the organisation used CIM as a tool to exchange information with other organisations, describe the benefit of this to handling the incident:

Handling of those affected and their families

Describe what functioned well and improvement points for the establishment, operation, clarification of roles and responsibilities in connection with the evacuee and family centre and the family support line:

Information to the general public and media

Describe how the organisation's own communication with media and the population functioned, and how the organisation cooperated with others with regard to a common message:

APPENDIX 3: QUESTIONNAIRE FOR ALL THE PARTICIPANTS

Thank you for participating in the survey!

You can start by clicking Next in the bottom right corner. You can move forwards and backwards in the questionnaire without your answers disappearing.

What role did you play in the exercise? If you had multiple roles, check the role that you primarily had.

- (2) Was training
- (1) Marker or role player
- (3) Planner
- (4) Controller
- (5) Evaluator

What marker group did you belong to?

- (1) Group A – Sydhavna explosion area
- (2) Group B – contaminated patients who managed to get to the causality clinic, Ullevål and Ahus unwashed
- (3) Group C – construction workers on the “Follo Line”
- (4) Group D – fire/explosion in the fuel cisterns
- (5) Group E – assisted evacuation
- (6) Group F – family for the family centre
- (7) Group G/H – media play
- (8) Group I – Disabled vessel
- (9) Group J - Exercise at Grønliakaia with the Austrian fire brigade
- (10) Unsure

APPENDIX

Kjønn

- (1) Male
- (2) Female

How old are you? Enter a whole number (for example: 25, 36, 48, 57, 69).

What organisation do you belong to?

- (1) Akershus University Hospital
- (2) Directorate for Emergency Communication
- (3) Norwegian Directorate for Civil Protection
- (4) Norwegian Institute of Public Health
- (5) Norwegian Armed Forces, including the Norwegian Coast Guard
- (6) County Governor of Oslo and Akershus
- (7) Norwegian Directorate of Health
- (8) South-Eastern Norway Regional Health Authority
- (9) Maritime Rescue Coordination Centre
- (10) Norwegian National Rail Administration
- (11) Norwegian Coastal Administration
- (12) Emergency Support Unit (KSE)
- (13) Norwegian Meteorological Institute
- (14) Oslo Fire and Rescue Department
- (15) Port of Oslo
- (16) City of Oslo
- (17) City of Oslo – city district

- (18) City of Oslo – causality clinic
- (19) Oslo Police District
- (20) Oslo University Hospital
- (21) National Police Directorate
- (22) Norwegian Civil Defence
- (23) Norwegian Public Roads Administration
- (24) Statoil Fuel and Retail
- (25) Uno-X
- (26) Yilport Inc
- (27) Other

What characterises your main tasks/role in the organisation? Check the most appropriate alternative.

- (4) Strategic management
- (1) Operative management (for example, incident commander, specialist commander)
- (2) Operative tasks / emergency response personnel
- (3) Administrative/advisory tasks (for example, executive officer, advisor, project manager)

How many years of experience do you have in the role/function you currently have? (For example, fire chief, emergency response supervisor. Does not need to have been the same employer) Enter whole numbers (For example: 1, 13, 22, 36, 41).

APPENDIX

Have you participated in the following competence-enhancing activities in connection with the exercise? Multiple answers possible.

- (1) Seminars under the direction of Seminars & Skills (for example: breakfast seminars and specialist seminars)
- (7) Other seminars
- (8) Discussion exercises
- (9) Skills training
- (10) Revision of the crisis and emergency preparedness plans
- (11) Dialogue with other organisations concerning responsibilities and authority
- (12) Dialogue with other authorities concerning the scenario
- (13) Internal competence-enhancing measures related to the solution of own tasks
- (14) Other, specify: _____
- (5) Have not participated in competence-enhancing activities in connection with the exercise
- (6) Unsure

To what extent did the run-up to HarbourEx15 give you greater knowledge of..

	(1) Not at all	(2)	(3)	(4)	(5)	(6) To a great extent	(7) Unsure	(8) Not relevant
...own organisation's role and responsibilities in connection with handling the scenario	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...role and responsibilities of other organisations in connection with handling the scenario	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...own organisation's crisis/emergency preparedness plans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...crisis/emergency preparedness plans of other organisations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I hvilken grad ga praktisk gjennomføring av øvelsen deg...

	(1) Not at all	(2)	(3)	(4)	(5)	(6) To a great extent	(7) Unsure	(8) Not relevant
...new insight into own organisation's crisis/emergency preparedness plans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...new insight into the crisis/emergency preparedness plans of other organisations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...new insight into own organisation's plans in relation to the crisis/emergency preparedness plans of others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...greater competence in responsibilities and authority	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...valuable training in the performance of tasks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How good or bad was your experience of the flow of information...

	(1) Very bad	(2)	(3)	(4)	(5)	(6) Very good	(7) Unsure	(8) Not relevant
...in your own organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...with other actors in reporting lines agreed upon in advance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
...with other actors outside of the reporting lines agreed upon in advance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

APPENDIX

With regard to the flow of information during the exercise, to what extent would you say that the following factors were present?

	(1) Not at all	(2)	(3)	(4)	(5)	(6) To a great extent	(7) Unsure	(8) Not relevant
Good routines for information sharing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Common understanding of concepts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Well-functioning technical equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If you have any supplementary comments on the flow of information, you can enter them here:

**Which cooperating organisation/actor would you praise the most for good handling?
Enter only 1 organisation/actor.**

**Which cooperating organisation/actor are you most dependent on in order to perform your own tasks?
Enter only 1 organisation/actor.**

Do you agree or disagree with the following statements concerning your role as a marker / role player in the exercise?

	(1) Com- pletely disagree	(2)	(3)	(4)	(5)	(6) Com- pletely agree	(7) Unsure
I received good information prior to the exercise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I received good information during the exercise	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It was clear to me what I should do	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I was able to carry out my role/tasks as planned	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How well or poorly did you feel that you were taken care of by the following actors?

	(1) Very poorly	(2)	(3)	(4)	(5)	(6) Very well	(7) Unsure	(8) Not relevant
Police	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Firefighting personnel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ambulance personnel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hospital personnel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Casualty clinic personnel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Evacuee/family centre	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

APPENDIX

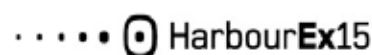
Do you have any supplementary comments on your role as a marker / role player in the exercise?

If you made any observations that you feel may be relevant to the above evaluation of the exercise, you may enter them here:

Thank you for your feedback. Your responses have now been registered.
When you click *End*, you will be taken to DSB's website.

Yours sincerely
DSB

APPENDIX 4: VOB PROGRAMME

**Director General's programme**

HarbourEx15 is a full-scale rescue and cooperation exercise with scenarios connected to operations in Oslo's main harbour, Sydhavna.

For more information about the exercise, please visit: <http://www.dsb.no/HarbourEx15/>

If you would like to follow the exercise on 28 and 29 April, you can log on here:

<https://ovningswebben.msb.se/HarbourEx15/StartPage/>

User name: HBX15user

Password: HBX2015

Monday 27 April

- 15.00–22.00 Information and registration desk is available
- 18.45 Meet up in the hotel lobby to walk together to Engebret Café (voluntary)
- 19.00 Director General's dinner, Engebret Café, Bankplassen 1, Oslo
Hosted by Jon Lea, Director General at DSB
Dress code: business

Tuesday 28 April

- 08.00–09.00 Registration, Thon Hotel Opera
- 09.00–10.15 Welcome and information about the exercise, Thon Hotel Opera, meeting room Flagstad
- 10.30–11.45 Transportation to Oslo's main harbour, Sydhavna
- 10.45–11.45 Briefing on the scenario at Sydhavna and observe the exercise
- 11.45–12.00 Transportation to Karlsborg Spiseri
- 12.00–13.15 Lunch at Karlsborg Spiseri
- 13.15–13.30 Transportation to Host Nation Support (HNS) camp at Ekeberg
- 13.30–14.15 Guided tour around the camp, briefing on the Norwegian ebola contribution in Sierra Leone and a briefing from the Austrian USAR CBRNE module
- 14.15–14.30 Transportation to Oslo town hall
- 14.30–15.00 Briefing from the directing staff (DISTAFF)
- 15.00–15.30 Briefing by Oslo municipality's preparedness department
- 15.30–15.45 Return to Thon Hotel Opera and end of program for the day



APPENDIX

Wednesday 29 April – visiting the exercise by boat (observer program)

- 08.30 Meet up in the lobby of Thon Hotel Opera for joint walk to the boat (voluntary)
- 09.00 Boat departure from Langkaia (near the Opera house). There will be coffee, tea, pastries, fruit and lunch served on board. You will receive the following briefings:
- Today's exercise
 - Preparedness and acute pollution
 - Norwegian rescue services – a combined effort
 - The EU Civil Protection mechanism
- 09.30–10.45 Vessel grounding in vicinity of Sydhavna – rescue teams (RITS) in action
- 11.15–11.45 Acute pollution prevention assets in operation
- 12.15–13.00 Accident at Grønlia (north of Sydhavna)
- 13.00–13.30 Oil spill clean-up efforts along the shoreline
- 13.30–14.00 Return to port, Akershusstranda 11, near the Oslo town hall
- 14.00 Joint walk back to Thon Hotel Opera (voluntary)

APPENDIX 5: OBSERVER'S PROGRAMME FOR EU NOMINEES



Observer's program for EU nominees

HarbourEx15 is a full-scale rescue and cooperation exercise with scenarios connected to operations in Oslo's main harbour, Sydhavna.

For more information about the exercise, please visit <http://www.dsb.no/HarbourEx15/>

If you would like to follow the exercise on 28 and 29 April, you can logon here:

<https://ovningswebben.msb.se/HarbourEx15/StartPage/>

User name: HBX15user

Password: HBX2015

Dress code for the exercise: Casual with good shoes and wind- and waterproof jacket

Monday 27 April

Arrivals throughout the day. We have arranged for a pick-up service at the airport. The registration desk opens at Thon Hotel Opera, meeting room Tryllefløyten at 15.00-22.00.

Tuesday 28 April

08.00–09.00 Registration, Thon Hotel Opera, outside meeting room Flagstad

09.00–10.15 Welcome and information about the exercise, meeting room Flagstad

10.30–14.45 Visit the exercise by bus including light lunch. You will visit the following locations:

- Oslo's main harbour, Sydhavna
- Host Nation Support camp at Ekeberg
- Directing staff (DISTAFF) at Oslo town hall
- Briefing by Oslo municipality's preparedness department at Oslo town hall

15.00 End of program for the day

19.00 Hosted dinner for EU delegates at Thon Hotel Opera, room Kvarten

Dress code: smart casual

APPENDIX

Wednesday 29 April – visiting the exercise by boat

08.30	Meet up in the lobby of Thon Hotel Opera for joint walk to the boat (voluntary)
09.00	Boat departure from Langkaia (near the Opera house). There will be coffee, tea, pastries, fruit and lunch served on board. You will receive the following briefings: <ul style="list-style-type: none">- Today's exercise- Preparedness and acute pollution- Norwegian rescue services – a combined effort- The EU Civil Protection mechanism
09.30–10.45	Vessel grounding in vicinity of Sydhavna – rescue teams (RITS) in action
11.15 –11.45	Acute pollution prevention assets in operation
12.15–13.00	Accident at Grønlia (north of Sydhavna)
13.00–13.30	Oil spill clean-up efforts along the shoreline
13.30–14.00	Return to port, Akershusstranda 11, near the Oslo town hall
14.00	Joint walk back to Thon Hotel Opera (voluntary)
15.00	Departure to the airport by bus from Thon Hotel Opera

Overview over EU nominated observers at exercise HarbourEx15

NAVN	E-POST	LAND
Paul Rock	paul.rock@environ.ie	Ireland
Johan Boydens	johan.boydens@ibz.fgov.be	Belgium
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Timothy John Murrell	timurrell@lancsfirerescue.org.uk	UK
Veera Mielikki Parko	veera.parko@intermin.fi	Finland
Partrick Pierre Alpheè Gindre	patrick.gindre@pompiersparis.fr	France
Franz Josef Molitor	franzjosef.molitor@bmi.bund.de	Germany
Vaidas Masiliauskas	monika.jankuviene@vpgt.lt	Lithuania
Gergely Ferenc Sàpi	orsola.gerics@katved.gov.hu	Hungary
Christos Zacharopoulos	czaharak@hcg.gr	Greece

APPENDIX 6: PROGRAMME FOR A SPECIALIST SEMINAR UNDER SEMINARS & SKILLS

SPECIALIST SEMINAR 22 April 2015 – HarbourEx15

Chairpersons: Espen R Nakstad (CBRNe Centre) and Stian Kobberstad (Norwegian Civil Defence)

- | | |
|-------------|---|
| 09:00–09:10 | Welcome DSB |
| 09:10–09:30 | About the Sydhavna exercise area, Tom Ivar Hansen, DSB |
| 09:30–10:15 | General emergency preparedness plan for Oslo/Akershus <ul style="list-style-type: none"> – for the Health Service, Bjørn Bjelland, Prehospital Centre, Oslo University Hospital – for the Police/Incident Command, Brian Skotnes, Police – for Fire/Rescue service, Oslo Fire and Rescue Department |
| 10:30–11:30 | Mass injuries and major accidents <ul style="list-style-type: none"> – Principles for handling mass injuries, Knut Styrksson, National Resource Service for Prehospital Emergency Medical Treatment – Organisation of the incident site – new guidelines, Halvard Stave, Air Ambulance Division, Oslo University Hospital – Medical treatment in a decompensated situation, Svein Are Osbakk, Air Ambulance Division, Oslo University Hospital |
| 11:45–12:30 | Emergency preparedness and division of functions <ul style="list-style-type: none"> – Role of local/regional Emergency Medical Communications Centre (EMCC) in major accidents / mass injuries, Andreas E Hansen, Prehospital Clinic/EMCC, Oslo University Hospital – Hospital emergency medical tasks and division of functions, Anders Holtan, Division of Emergencies and Critical Care, Oslo University Hospital – CBRNE preparedness for smoke and chemical injuries, Espen R Nakstad, CBRNe Centre |
| 12:30–13:30 | LUNCH |
| 13:30–13:50 | Role of the Maritime Rescue Coordination Centre in major accidents, Asbjørn Viste, Maritime Rescue Coordination Centre |
| 13:50–14:15 | What will take place during the exercise on 28 April 2015? Anders Gundersen, DSB |
| 14:15–14:30 | Evaluation tasks during the exercise, Camilla Elseth, DSB |
| 14:30–15:00 | Learning outcome – “After Action Review” Jens E. Lauritzen, Oslo Fire and Rescue Department |
| 15:00–15:15 | Summary and questions |

WELCOME TO THE SPECIALIST SEMINAR at Radisson Blu Scandinavia, Holbergs plass

APPENDIX 7: PROGRAMME FOR POST EXERCISE DISCUSSION, 1 AND 2 SEPTEMBER



Day 1

09:00–09:30	Coffee and registration
09:30–09:40	Welcome and plan for the day by DSB
09:40–10:00	About the Sydhavna project by Tom Ivar Hansen from DSB
10:00–10:20	Oil companies inform about the status of implemented measures by Jan Milton Berge from Statoil Fuel & Retail
10:25–10:45	“Industrial safety at Sydhavna – measures to improve joint emergency preparedness” by Knut Oscar Gilje from the Norwegian Industrial Safety and Security Organisation
10:45–11:00	Break
11:00–11:45	City of Oslo and Port of Oslo inform about the status of measures By Emergency Planning Director Ann Kristin Brunborg with support from the Agency for Fire and Rescue Services, Agency for Planning and Building Services and the Port of Oslo
11:50–12:30	Government supervisory authorities by Torill Tandberg from DSB
12:30–13:30	Lunch
13:30–14:00	From report to exercise – learning as we go by Hilde Bøhn, project manager, HarbourEx15
14:00–14:20	The exercise from the perspective of DISTAFF by Anders Gundersen, DSB
14:20–14:30	Dispersion calculations by Knut Helge Midtbø from the Norwegian Meteorological Institute
14:30–15:00	The authorities and the media during crises by Peter Markovski, Managing Editor, Aftenposten
15:00–15:30	Summary and discussion

Day II

09:00–09:30	Coffee and registration
09:30–09:40	Welcome and plan for the day by the Evaluation Syndicate
09:40–10:40	Experiences from the exercise – preliminary findings by Elisabeth Næss and Camilla Elseth
10:40–11:00	Break
11:00–12:00	Group discussions concerning findings and improvement points
12:00–13:30	Lunch
13:00–14:00	Presentations from group work and discussion
14:00–14:15	Break
14:15–15:15	Continuation of presentations and discussion
15:15–15:30	Road ahead and summary

APPENDIX 8: INVITATION TO *WAY FORWARD*



**The Directorate for Civil Protection invites you to the Way Forward seminar
at Reenskaug Hotell, Storgata 32, Drøbak, 16–18 November 2015.**

Planning, execution and evaluation of exercises brings sectors and administrative levels together and represents a meeting venue in which the emergency preparedness actors acquire greater knowledge of each other's responsibilities, tasks and plans.

All experience nevertheless indicates that it is challenging to translate findings and learning points from the evaluation into concrete measures that will be addressed to one or more organisations. In addition, we have problems with following up action plans and a lack of insight into whether the measures function as intended.

Several contributing factors play a role when the challenges are analysed. DSB believes that an important factor is the distance between the personnel who plan, execute and evaluate exercises and the decision-makers in the respective organisations. The Directorate has therefore stressed the importance of bringing the planners and managers together throughout the entire HarbourEx15 process, which is also reflected in participation in the seminar.

Way Forward will start with a two-day seminar that will bring together a group of up to 25 persons. The invited participants will contribute to finding the right measures after this exercise. The results from the seminar will function as a draft action plan that we must ensure to anchor in each and every organisation.

The seminar will start on Monday, 16 November at 12:00 hrs and end on Wednesday, 18 November at 13:00 hrs.

A tentative programme has been enclosed.

Each participant must arrange their own transport to and from Drøbak. Board and lodging will be covered by the Directorate for Civil Protection.

Yours sincerely,
For the Norwegian Directorate for Civil Protection

Per K. Brekke
Director General

Georg Bryn
Department Head



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