Minutes

Seminar
on
Mass Crisis Communication with the Public
(MASSCRISCOM)

a project within the framework of the European Commission – Directorate-General for Home Affairs, under the Specific Programme Prevention, Preparedness and Consequence Management of Terrorism and other Security-related Risks (CIPS)

hosted by the Estonian Emergency Response Centre, Estonia Rescue Board

Tuesday 19 – Wednesday 20 October 2010 in Tallinn*, Estonia

A Seminar Participant List is found at **ANNEX I**
The Agenda is found at **ANNEX II**

19 October 2010

Opening Session

Janek Laev, Director of the Estonian Emergency Response Centre (ERC), welcomed the participants to this Seminar and to Tallinn.

A presentation of the MASSCRISCOM Project's concrete targets and objectives was made by Stig Ekberg, Project Coordinator and Manager, Civil Defence Director of the Uppsala County Administrative Board, and Ulf Bjurman, Senior Advisor to the Project. The concrete target of the Project is to achieve an increased common capability in society to communicate between competent authorities and the public in crises through a process which will consist of such components as warning the public, provision of information to the public and receipt of information from the public, which can contribute to the situation awareness of the authorities. The requirements for the technical support systems will be defined, How the different actors in the crisis communication system can have access to the national capacity for communication with the public and how new media or technology can be implemented for warning and provision of information will be demonstrated, i.e. for warning, information dissemination and communication purposes.

* venue: Radisson Blu Hotel, Tallinn http://www.radissonblu.com/hotel-tallinn/location, Rävala pst.3, 10143 Tallinn, Estonia Tel: +372 682 3 000

Other objectives are to describe how the information from the public can be gathered and analyzed and then disseminated to the crisis management actors and how the burden on the 112 Emergency Call Number can be reduced through a so called ”Crisis Communication Center” (CCC) or separate information number(s). The Project will not present proposals for organisation and coordination of crisis management or the 112 system or develop any new technical system(s) for presentation of situation awareness, etc. Focus will be put on process rather than on the organisational matters and the work will build on the practical competence and experiences of the Partners, including the experiences of management of information to the public in connection with the previous crises that have occurred. The result will be a generic model based on an ”all-hazards approach” and existing conditions. The model will be presented at a demonstration.

Overall crisis communication policies - Opening Speakers

Lauri Lugna, Head of Department, Ministry of Interior, presented the Estonian organisation of the rescue services in the four regions as well as the border guard and police under a centralized leadership. Budgetary reasons have lead to a standardized and common system for handling rescue and medical emergency calls and the police calls are under way into this system. This integration will give improved opportunities for setting priorities to optimise the use of available resources including personnel more effectively from a cost-benefit perspective. The amount of 112 call-takers was previously around 600 but could due to the development of the service to around 170 dispatchers. In the future, when the 110 and 112 calls are merged, the number of dispatchers in the joint organization will however increase due to a larger number of processed calls dealing with police, medical and rescue matters and be available as resources in a crisis.

Janek Laev, Director of the ERC, gave a general presentation of the Estonian system for handling 112 emergency calls in the event of fires and other emergencies and 110 calls for police matters. As a result of education programmes on 112 that are used in elementary schools and several articles in the press to improve knowledge of 112 among elderly people, the knowledge of the population about the 112 emergency call number is now at resonably high level, 85% in general and 65% among elderly people. The ERC is a government institution, steered by Rescue Board under the jurisdiction of the Ministry of the Interior and financed from the State budget.

There are four regional coordination centres with the fire and ambulance services integrated in the system but the police has its own local PSAPs (four regional centres). A process is now under way to integrate by 2014also the police calls into the 112 centres. There is an overflow system between all four 112 regional centres to ensure that the calls are responded to. 176 persons work in the ERC. The control room aspects

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are dealt with on the operational level in two stages. In the first stage risks are evaluated, the case is defined and priority is set for it, the location info and other details are recorded in database. The call-taker stays online with the caller as long as necessary. In the second stage, the case details are fetched from the database, the fire and medical resources are delivered and the case is followed by the control room until it ends. All the information received by call-taker from the scene is recorded in database. The management level follows, supports and intervenes only if necessary.

In Estonia there is a common TETRA radio communication network between 112 and the different collaborating services. The call-takers and dispatchers are trained in the Väike-Maarja Rescue College for one year. The studies include medical and rescue knowledge, call handling skills and practices implemented in the ERC. There are annually 1,5 million emergency calls per year, 2,2 million radio communication contacts and 15 000 overflow calls. The response time is 15 seconds but the strategic goal is 10 seconds and the call handling duration is one minute. Many calls are in the Russian language but there are frequently also calls in English and Finnish. Assistance for disable people is provided via fax and there are some special forms of communication distributed through the disability organisations. There is a project in process to provide SMS-112 service for disabled people free of charge. The caller location is pull-based but will change when an on-going GIS-112 project is implemented. Caller location service is free for ERC and the costs are born by the mobile operators.

There are projects going on regarding SMS service for hearing and speech disabled people, improved handling of rescue cases – development of a rescue index in supplement to the existing medical index for risk evaluation – and integration of the common database and the TETRA radio communication network (status messages, SMS-s, alerting, etc.). A challenge is to organise effective two-way communication between the public services and society in crises situations

Björn Sola, Deputy Director at Ministry of Defence, presented the Swedish Government's Communication to the Swedish Parliament regarding emergency preparedness and stronger collaboration for achieving increased cooperation. Its main context is the need to clarify the aim of the crisis preparedness work and the actors' responsibilities concerning planning and preparation, which will create better conditions for follow-up and direction.

MSB has therefore been tasked to prepare concrete goals for society's preparedness in preparation for the 2012 Budget Bill. Cooperation in relation to preventive measures is to be clarified, nationally by strengthening the collaboration in cooperation areas and civil-military collaboration and internationally in accordance with the solidarity statement the Lisbon Treaty. Furthermore, the responsibility for each individual concerning his or her own safety will be clarified through education and coordination of information. Knowledge is to be increased on how individuals manage and are

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affected in stress situations and special information will be provided regarding serious incidents and crises. Furthermore development is to be undertaken in the following areas: cooperation between the public and private sectors, risk and vulnerability analyses, financing of emergency preparedness and coordination, society's crisis preparation and the continued international cooperation from a pragmatic perspective. The changing risks and threats must be considered. Increased collaboration will also be achieved through developed management, targeting and monitoring.

Rainer Åkerblom, Head of Administration, Åland State Provincial Office, presented the Åland organisation, experiences from major emergency situations and crisis communication which were studied more in depth in connection with the previous MASSCRISCOM Seminar. For further information please see the separate presentation Rescue Services System in Finland.

Silvio Mascagna, European Commission, Directorate-General for Home Affairs, presented the Commission Crisis Management System which has ability to gather information, collate (sensitive) data, meet in a controlled environment, communicate effectively and formulate clear procedures which leads to ability for the Commission to respond proactively.

The crisis coordination arrangements (EU CCA) ensure rapid and coordinated EU level police response in the event of a major crisis and are triggered by the Member State holding the Presidency of the EU, in consultation with the directly affected Member States. The assistance of all Council and Commission services may be called upon in the framework of the CCA, as appropriate. ARGUS is the European Commission General Rapid Alert System (RAS). It is a web based internal communication network allowing the Directorates General and Services of the Commission to share key information and to coordinate actions in a crisis. Duty Officers from DGs are available to monitor ARGUS and escalate any crisis accordingly. Actions are divided into two phases (phases I and II):

- Phase I – each Directorate-General deals with a crisis within its area of competence, coordinating actions with other services concerned and acting through the normal RAS channels and procedures. The ARGUS information system is fully available to all members sharing the information
- Phase II – In the event of a multi-sectoral crisis, the specific operational management structure called the Crisis Coordination Committee (CCC) will be activated. This is decided by the President of the Commission on his own initiative or at the request of a Member of the Commission.

The EU Civil Protection Mechanism facilitates reinforced cooperation between the Community and the Participating States in civil protection in the event of major natural and man-made disasters, inside and outside EU. The main tools are:

- Monitoring and Information Centre (MIC) – available 24/7

- Coordination and assessment teams
- Database of modules and experts
- Transport pooling and co-financing
- Preparedness and prevention projects

There is a Civil Protection Financial Instrument to support the Mechanism and the key operational roles are monitoring, information and coordination

The Health Security Committee Communicators' network was created in November 2008 with the aim of bringing together health threat crisis communicators in order to exchange experience and best practice on risk and crisis communication. The network provides a forum where risk and crisis communication can be coordinated but all parties retain their ability to communicate independently. Any initiative to coordinate communication strategies and messages on the response will be led by the Commission and any Member State can request the Commission to start a coordination process about an event.

The primary objective of the DG HOME Secure Zone (SZ) is to provide a secure environment for a team to support DG Home Affair policy development during a crisis situation but also during routine business. The secondary objectives are to provide a permanent secure area where DG Home may conduct business in a secure environment providing document handling and registry services, a back up facility to the DG Home business continuity response and act as a central co-ordination point for ARGUS Duty Officer responses.

Collaboration in crisis communication between different actors/recent and on-going structural changes affecting crisis communication

(Changes in procedures and administration of crisis management and communication for instance by integration and co-localisation of the services of different actors to improve collaboration have been introduced or are under way. This has been or can be facilitated by the use of modern technology. Also needs for rationalisation and improved efficiency of the public administration lead to structural changes primarily the regional level which affects crisis management and communication.)

Janne Koivukoski, Director, Department for Rescue Services, Ministry of the Interior, Finland, made a presentation on collaboration in crisis communication between different actors and on recent and on-going changes affection crisis communication. Some recent crises related to wild bears appearing in city areas, a waste water accident and shootings of persons lead to the establishment of the web portals Luova (natural accidents) and the Crisis Portal. The crisis management and communication changes include procedures and administration, structures on the regional and local level, integration and co-localisation of the services of different actors to improve

collaboration, use of modern technology and rationalisation and improved efficiency of the public administration, including involvement of the third sector and outsourcing.

There is a new governmental organisation and the County Administrative Boards have disappeared. There are now instead six Regional State Administrative Agencies and fifteen Centres for Economic Development, Transport and the Environment. Municipalities and services are also being restructured. The services of different actors are being integrated and co-localisated to improve collaboration. The existing fifteen ERCs will thus be replaced by six ERCs and these will be developed and use new IT-system to handle all ERC-functions. A new field management system will be provided to all co-operative authorities. The modern technology to be used consists of Internet, social media, digital TV (cable-TV), Broadband services, radio, GSM, 3G and mobile IT, GPS- and GIS-services and the authority communication systems VIRVE (a TETRA system) and the TETRA Enhanced Data Service (TEDS). In respect to information and training the general principle is that whoever directs activities in a situation is also responsible for informing the public. The information must be given also in advance and preparedness must be built up and practised. Regular emergency exercises are thus required for testing the functioning of the plans and instructions.

Svante Werger, Director of Communication, MSB, addressed, in his presentation on the Paradigm Shift of Crisis Communication from a Swedish perspective, the way governmental organisations traditionally have worked with crisis communication, which is becoming more and more obsolete. This is due to globalization, the technological development, a new media landscape, new communication needs and demands and increased transparency, which leads to a need to rethink what "we are doing and how we are doing it!" There has been a move from one radio channel to both direct and indirect communication through multiple channels, i.e. media, web sites, telephone services, social media, etc.

During the "Swineflu", the national information service to the general public, not the health care service, consisted of national pandemic group members, one point of contact reached by telephone and web (national web portal for crisis information to the public), receipt of questions and giving answers, telephone meetings twice a week to update and validate the Q&A database and new questions being answered within 48 hrs, all carried out in a system with high capacity.

Svante Werger gave concrete examples of the elements of the Paradigm Shift of Crisis Communication:

- One way communication through media to a receiver, possibly with questions from media, replaced by many communication flows in which everyone is an information producer

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- The previous communication only at specific times has turned into continous communication with deadlines around the clock (24/7)

- Communication subordinated under the management (crisis managament, consisting of the analysis and decision making, leading to crisis communication with press releases to media and web releases to the citizens) is now communication integrated with management (with the communication analysis as an input to decision making, the communication process as a catalyst for coordination and a communication expert in the management group). The crisis communication challenge is managing the situation and the situation awareness simultaneously

- The communication was sender specific, i.e. from each agency or actor to the general public with no specific target groups, and has turned into coordinated information to meet specific needs and communication with different and specific target groups, communication needs changing over time

- Governments would previously alone have access to and control critical information (and chose how much of the information to share, how to present and package it and how to interpret it) whereas critical information is nowadays being spread in society by governments, companys, organisations and individuals (*"Self-organised groups and information services",* each of which can chose how to share the information, how to present and package it and how to interpret it)

- Change from the local/national context to a European and global context for crisis communication (with an increased influence of EU and UN policy, global fact-finding, European/global comparison of policies/decisions – benchmarking and globally orchestrated critizism)

Eleka Rugam Rebane, Advisor, Estonian State Chancellery, Government Crisis Communication Department, presented the Crisis Communication in Estonia where the people are considered to be the biggest asset as crisis communicators. The crisis communication network in the regions (gov. agencies) and on state level (gov.agencies, ministries) is based on networking and is not a hierarchical setup. The structure is similar to the crisis management system with a crisis communication team on scene and regional level consisting of local authorities and local offices of government agencies and inspectorates. On national level the team consists of agencies and inspectorates and on central government level of the Ministries.

This team is organised with a rapid reaction team with permanent members from governmental agencies or ministries, rules of procedure, a communication plan and defined subordinate bodies to it. There are guidelines to the public, which is provided with an overview of what is done and how, and support is provided to crisis managers

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with media coverage, etc. The crisis communication consists of government communication, creating awareness and understanding, making prognoses, intuitive as well as rational, and inter-twined cooperation.

Gunnar Bergström, SOS Alarm, presented the new strategy, organisational structure and working methodology for SOS Alarm introduced on 1 October 2010. The main task of SOS Alarm is to respond to the more than 10.000 daily calls to the 112 emergency number regarding e.g. acute ill-health, traffic accidents, fires, robberies or burglaries. Prioritisation and dispatching the ambulance service, alarming and dispatching the rescue services, etc. are additional services that are regulated through separate agreements with each county council and municipality. There are 18 SOS centres located from Luleå in the north to Malmö in the south. In 2009, SOS Alarm had 874 employees, about 600 of them were SOS-operators.

From 1 October 2010, SOS Alarm is divided into three production areas, Northern Sweden, Southern Sweden and Central Sweden to facilitate co-ordination on national and local levels. There are four business areas with a clear responsibility for clients and results, 112 and crisis management services, paramedics services, rescue services and finally security and stand-by services for calls and social care services. Each business area has responsibility for its economy, development and customer support which means that decisions will be made close to the customers. Trends in the further development of the organisation enabling it to adapt itself faster to the customers' needs are:

- Increased specialisation and improved competence within all the business areas
- A focus on close dialogue with clients to meet individual needs within different sectors
- Integration and harmonisation of the 18 SOS centres which together will act as a virtual centre enabling the work load to be transferred between the units
- Increased participation in research and development for instance in pre-hospital care and rescue service, etc. to improve safety and the quality of the service
- Integration of the 112 with the Tetra communication system
- More focus on participation in crisis management in municipalities, regions and nationally

Experiences from crisis communication

(In recent years a number of crises, such as the vulcano eruption and its effects, severe weather conditions and the pandemies, combined with a more proactive behaviour and requirement by the public for receiving and being able to find information in crisis situations has underlined the urgent need for improved crisis communication.)

Kristin Thordardottir, Deputy District Police Commissioner, Hvolsvöllur district, presented facts about Iceland, i.e. its conditions in general and organisation for crisis

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and disaster management, and the experiences from the 2010 Eyjafjallajökull volcano eruption. Iceland can in this context be described as a small nation and large country with many hazards and in fact one of the highest frequencies in the world of natural hazards. These include earthquakes due to strong motion of the ground, snow avalanches, glacial outburst floods from sub-glacial volcanic eruptions and meteorological hazards in the form of violent storms, river flooding and coastal flooding. There are also considerable transportation risks related to buses, ferries and aircraft. She cited Vidir Reynisson, Head of the Department of Civil Protection and Emergency Management, who in an interview regarding the planning and preparedness in Iceland said that even your best plan can fail. But if you fail to plan - you plan to fail and "the day to start planning is not the day when the eruption starts, it is today".

The threat estimation for Eyjafjallajökull is based on a hazard assessment for Katla and Eyjafjallajökull made in 2002 – 2005 and defines the possible types of eruption and glacial outburst floods, i.e. the flood routes, the extent of the flooding and where the flooding water will spread, and the volume of the flow of water. The Eyjafjallajökull assessment summarizes that the eruption types are not well known and eruptions are rare, occurring around once every 200 years. The last eruption was in 1821-1823 with breaks lasting up to 6 months. There were three main passages which the floods took, one on the glacier's north side (Gígjökull) and two on the south side of Eyjafjallajökull. The volume of the flowing water was up to a maximum of 30.000 m³ per second. The extent of the flooding and where the floodwater will spread is not known.

From 1994 there were some signs of seismological activity in Eyjafjallajökull and 1999 there was more seismological activity. The seismological activity became high in 2009. Early in March 2010 the activity increased and meetings were held with the affected inhabitants. In the evening of 20 March an eruption started at Fimmvörðuháls which lasted until 13 April 2010. The eruption was relatively small but about 700 persons were evacuated from the area in danger due to flooding. Many visitors were in the Fljótshlíð area and some 100.000 "visitors" were on the glacier during the eruption. The main concern for the Civil Protection became (surprisingly) crowd control!

Seismic and volcanic activity stopped on the 13 April 2010 and scientists presumed that this part of the eruption was over, but … something was going on west of the eruption site. The eruption started again in the evening of 14 April and early in the night it was decided to activate the evacuation plans in full, i.e. evacuation of both inhabitants and tourist, closure of roads, restriction of flights (10 miles) and activation of the Civil Protection structure of Iceland. activated to its full capacity. There were two floods on 14 and 15 April and the volume of the flowing water was up to 3.000 – 4.000 m³ per second, the highway no. 1 was breached to save the bridge over the Markarfljót-river (the flood passage) and levees prevented the Markarfljót-river to spread. The immense ash fall out affected all Europe and damages on agricultural land created difficulties for farmers. Health effects on residents and live-stock are not known. The question now is

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"is it over", which is uncertain as in 1821 – 1823 there were long periods of no activity. As there is still a danger, the emergency phase continues with restricted areas.

Crisis communication with the public was conducted through phones (voice mail and SMS) and through media, i.e. the national broadcasting service is a part of NCC, the Website www.almannavarnir.is and other national media (press releases via e-mails). The primary communication system for all response units (Police, Ambulance, Fire and the ICE-SAR rescue units) is the TETRA communication system. TETRA in Iceland is operated by Neydarlinan 112 (the 112 Emergency Call system). A few weeks before the eruption a new Base Station had been built on the mountain Þórólfsfell north of the Eyjafjallajökull. During the eruption another Base Station was installed on mount Laufafell. Those two as well as other Base Stations around the Glaciers founded the platform for the communications. Another role for those Sites was to serve as a base for measuring equipment used by the scientists and also hosting Web cameras used for observation and Worldwide broadcasting.

The telephone companies installed GSM and 3G services in the 112 Sites on those mountains, enhancing the overall communications in their areas. Beside those services, AVL based on the TETRA system was also used throughout the operation. AVL was a great help in overall resource management and was used extensively both by the on scene Command Centre and in the National Rescue Coordination Centre in Reykjavik. The TETRA system and it's side functions worked perfectly throughout the incident. In the local EOC the chief of police had representatives from all involved organizations and local government. Regular meetings were held with other local and non local authorities, e.g. the Icelandic Food and Veterinary Authority (livestock).

All ministries were involved which leads to a high demand for situation awareness information. Numerous service bodies participating gave vital information but also needed information. Most of them are part of the plan but there are different opinions on their roles and responsibilities. An information team was set up for dealing with the media and government and foreign embassies and providing frequent Situation Reports and elaborating speaking–notes for ministers and Icelandic embassies abroad. Challenges were persons requesting through e-mails information about the situation in Iceland and asking questions, for instance is it ok to travel to Iceland, how are my family members, etc. New challenges, not foreseen in the planning, were the social media, i.e. blog, Twitter and Facebook as well as the spreading of rumours.

The lessons learned were that there is an immediate need for a better alarming system in the area to reach unlisted phones, for which purpose there is a lack of sufficient software and equipment, and also for planning for handling international media. Coordination with numerous agencies and ministries needs improvement, partly since these frequently did not have a forward looking planning. The closure of access to dangerous areas must be strictly enforced and monitored, and it is necessary to ensure beforehand that the evacuation plan works and the residents know how to respond or

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act. The residents must be involved in the planning and preparedness and be kept well informed to enable the system to work. Residents have trust in authorities during and after the eruption which must be maintained. The scope of insurance and needs for new legislation should be considered.

Janek Laev, Director of the Estonian ERC, informed about a furious thunderstorm (Derecho) which in the evening of 8 August 2010 passed over half of Estonia in 3 hours from Latvia to the Finnish Gulf and caused very severe consequences. There was no active pre incident warning message to the public and the only warning message was received through the morning weather forecast indicating that a storm was coming and wind speed would be 25 m/s. The consequences were that 60 000 households were without electricity, the Estonian Energy dispatch centre became overloaded with calls and the public in two eastern regions affected by the storm became confused as they could not get help or information on how long the power black-out would last. 3000 emergency calls to the 112 system were unanswered from 1800 hrs until midnight, in which period there were 26 fires and 175 ambulance calls.

The lessons learned were that there is a need for an early warning system to allow the 112 emergency call system to increase its readiness before the incident and not have to take measures to reach a sufficient capacity once it has occurred. Early warning messages must be sent to the public to avoid panic and accidents. The early warning system must provide warnings to all services with information and service numbers, i.e. the Estonian Energy, etc. in order to also increase their readiness to avoid the blocking of the 112 lines which increases the consequenses of the emergencies. Improved co-operation is the key answer to improving the situation. By 2014 the police control centres will be integrated into the ERC centres which is an important change. Thunderstorms and similar emergency situations need more dispatcher capacity which can be achieved through this integration. MASSCRISCOM can play a role in providing solutions on how to avoid an overload of the 112 emergency call system and how to organise two-way communication during emergencies and crisis situations, because lives will depend on this.

Rune Forsell, Senior Advisor, SOS Alarm, presented an incident affecting the 112 services, when a stream outside the 112 SOS Emergency Call Centre in Gothenburg was causing flooding due to the water level of the Göta Älv river which was 112 cm over normal. At the same time one of the lock gates was being repaired and thus out of order which lead to “things that should not happen suddenly happened” and the garage under the SOS Alarm Centre where the power supply was located became was flooded. A temporary SOS Centre linked to power supply was set up to solve the situation. It took 15 hrs to get rid of all the water with a pump capacity of 20 m^3/min.

Triin Vihalemm, Tartu University, Institute of journalism and communication, presented an integrated research study on The patterns of receiving and processing emergency information - cultural experiences and information searching habits. The

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integrated research was conducted on the basis of a case study with three focus groups and retrospective interviews with people who had actually survived the storm and floods in Pärnu in 2005, a "laboratory" research of reactions of seven focus groups to simulated warnings of different types of threat (storm, chemical pollution, radiation) and a survey with standardised answers to the questions about possible behaviour strategies and preferred information sources in the times of crisis (radiation). Some patterns came out as a result of the factor analysis.

The survey thus focused on the perception of crisis communication information by the citizens, who experienced real-life crisis events in Estonia. The survey also showed how people reacted to the crisis communication messages and which actions were taken by different social and age groups. The main results of the analysis of peoples' information seeking habits, reaction to the warning messages and behaviour (real and intended) in the crisis – a summary of these results are presented at ANNEX III - were based on the questions:

- What are the warning message response strategies utilized among the lay public?
- Which factors support the response efficacy of the warning?
- What are the barriers hindering the response efficacy of warning, especially the instructing information?

Another outcome was a discussion of the possibilities of strategic planning of pre-crisis communication. The first part of the discussion addressed the following:

- Cognitive coping is used to make sense of the crisis situation and prepare for taking actions (Jin et al 2007, 2008).
- Emotional coping with the crisis helps to overcome the fear, based on low certainty (Baker and Berenbaum 2007)
- Crisis message should contain instructing information and (psychologically) adjusting information (Struges 2004)
- *Networking* can be undertaken for looking for additional emotional support. Calling to acquaintances helps to adapt emotionally but during the process of networking the coping with the crisis is likely to transform to cognitive coping.
- The process of obtaining information is itself important to prepare for cognitive and conative coping (taking actions).

and led to the following suggestions:

- *Network communication* should rather be encouraged by the communicating institutions, not prohibited.

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- All workers in an organization, not just official spokespersons, should be trained for communication in crisis situations

- People should be encouraged to talk with persons who do not follow the mass media regularly (grandparents, neighbours, etc.)

The second part of the discussion addressed the following elements:

- Conative strategy (Jin 2010) might be utilized when one can be expected to follow the instructing information given by institutions but also when one will rely on the first impulses for what action to take

- Ignorance of the further information provided and institutional instructions given is likely to occur when a person feels high uncertainty about the threat and its low controllability by the institutions.

and led to the following suggestions:

- Risk and pre-crisis communication can help people to evaluate a situation more adequately

- Education on risks should be considered for a secondary network of experts - teachers, nurses, various volunteers, etc. - to whom the public may turn to collect additional information about threats (two-step- flow of communication). These experts can serve as opinion leaders in the two-step communication model (Katz & Lazarsfeld).

The question of a new paradigm in crisis communication would result in calls for decentralised crisis communication strategies (Falkheimer and Heide, 2010; Gilpin and Murphy, 2006; Tyler, 2005) i.e.:

  – a shift from technical action plans to the creation of pre-crisis strategic frameworks

  – a shift from the sender and central spokespersons to the public and networks of communicators using, in addition to the mass media, minority media and micro media and interpersonal meetings

  – not informing recipients but achieving that the public understands and can act on their own accord

  – new methods for preparing the crisis teams to act in the situation of indispensable ambiguity and uncertainty of the crisis situation and for encouraging managers to think differently

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Eleka Rugam-Rebane, Advisor, Estonian State Chancellery, Government Communications Unit, presented the Estonian results about the Estonian state officials' perceptions on crisis communication co-ordination of the MASSCRISCOM survey, underlining that the public´s perception of the situation is the reality. Important for Estonia is to have fresh ideas on informing the public in emergency situations, reflect on the gaps in crisis communication from a crisis management point of view and compare MASSCRISCOM results with different surveys previously carried out in Estonia (on risk communication; emergency calls; the public´s risk behavior, etc.)

There were 47 respondents in Estonia to the Web-based questionnaire. The respondents were civil servants related to crisis management and/or communication and the results of the survey provided an impulse for new ideas and directions in crisis communication. There were a number of conclusions connected to the great expectations on the 112, quick weather forecasts for timely crisis communication, information from the public and dissemination of information to the public, cooperation with the social workers and the need for training.

The 112 system is regarded as a two way information channel for providing help in difficult situations, not only providing the rescue and first aid response. The future options could be for 112 to concentrate on the first aid and rescue response and establish an additional call centre for non-critical calls (a similar phone number could be introduced in Europe). There is a need for quick weather warnings and formulation of these so that they make sense for the general public, i.e. clear-cut explanations of numbers in m/s and the warnings, including the impact on individuals and a certain region.

Receiving information from the public is crucial for creating the context of the situation and a situation awareness. The options for the future could be the introduction of new channels or technical platforms for gathering information from the public and these could possibility be adapted to the social networks. The information will have to be adapted to different target groups (strategical and operational levels).

A majority of the respondents (73%) are more or less satisfied with channels used for disseminating information to the public (media, Web and sirens). Media and phone lines are vital information channels for the Estonian public during emergencies but Web sites are not especially used in urgent situations. Future options could be the use and combination of different channels and message formats in urgent situations (SMS/cell broadcast, voice messages, face-to-face informing, phone lines, social networks, etc.). Awareness on how to reach and inform the disabled people – channels, messages and formats – should as a future option be improved by initiating cooperation with social workers and assistants to the disabled people.

Continuous training is needed for raising awareness among the governmental agencies and enterprises responsible for informing the public to achieve impact and possibilities

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of exercising crisis communication, including as a future option training in crisis communication – Web 2.0, mobile communication-based solutions, etc.

Demonstration and study visit to the Estonian Emergency Response Centre

The participants in the Seminar were taken by bus under the lead of Kaur Sarv and Rivo Salong, ERC, to a demonstration and study visit to the Estonian Emergency Response Centre and also informed about the frequent emergency problems in Estonia related to the discovery and management of war-time ammunition.

20 October 2010

Peer Rechenbach, Head of the State Department of Civil Protection, Disaster Response Management, Fire- and Ambulance-Services of the Free and Hanseatic City of Hamburg, Ministry of the Interior and Sport Hamburg presented the Risc-Crisis-Disaster-Process consists of the impending, latent and manifested phases with the potention risc, risc communication including "early warning" and crisis communication and setting of goals for the crisis management respectively. The disaster occurs in between risc communication and the crisis communication and when "warning is too late".

The first steps in crisis communication are to provide the public with information about what happened, what is the situation, what are the risks and what is already done or activated. Information is provided concerning what is to be done by the public and what is to be done by the effected people and this can have the form of orders to the public. The information can include what will be done in the next 3 hrs, 36 hrs or 72 hrs and the the prognoses regarding the situation being either under control or escalating.

The Disaster Response Management Agency will communicate to the public by media with its official informations. It will "ring the bell Alart-system" to the affected public through the D 115 Public Service Call Centre and activated information plattforms D 115, Internet, Facebooks, Tvitter, blogs, etc. Leading the disaster response is, as Head of the Disaster Response Management, the State Secretary and under him the Staff for Disaster Response Management and the Crisis Communication Management and the disaster reponse units.

Experiences and introduction of information number(s)
(The increasing use since a few years in Estonia of information numbers, handled in a separate service, co-located with the 112 Emergency Call service, has decreased the burden on the 112 service. Responding to non emergency calls has decreased. This Estonian service is expected to be developed further and perhaps even merge into a single information number. Also in other countries the introduction of a information number(s) to improve the 112 and crisis communication capacity can be expected.)

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Herve Merivald and Kaur Sarv, ERC, presented the experiences from the implementation of information or service numbers in Estonia and possible further development of the service. The service group numbers are managed by ERC and can be divided into the Emergency calls on 112, the fire and rescue services information and crisis communication information number 1524, the environment inspection number 1313 and the non emergency call number 1345 connected to the local government services. The supportive assistance numbers allow better management of non-operational calls and thus ease considerably the workload of 112. The current model for the issuing public warnings is that the rescue officer in the lead on site calls ERC on number 1524 and is connected on 1524 to the Estonian National Broadcasting to inform citizens.

The 1345 dispatcher service helps to solve problems involving municipal engineering issues such as *electricity, water and sewage, heating systems, maintenance of streets and roads, etc.* in the city of Tallinn and surounding municipalities with in all about 500 000 inhabitants. Citizens may also report any information about urgent matters or situations which need immediate intervention in public places. The problem is forwarded to the appropriate institution/company or alternatively the caller is connected with the necessary institution/company. Practical and integrated co-operation is established between the State, local government, citizens and companies to solve and prevent both critical and non-critical accidents and problems.

The 1313 environment information number is available for matters related to injured or dead animals, environment pollution, environment regulation violations and fish quota information. The 1524 fire services information number's main functions are related to automated fire alarm systems, fire safety regulation info (how, when and where to make a fire), fireplaces, chimneys and heating systems safety and fire control and serving as an info channel between authorities and the public in the event of large emergencies. The 1345 number served as the main contact point in connection with a plane crash on the Ülemiste lake on 18 February 2010 and a bomb explosion in an apartment building in Tallinn on the 28 March 2010

Inger Frendel, MSB, crisis communication and coordination expert and editor for the website Krisinformation.se., presented the preparations for the introduction of a new information number in Sweden. At present there are different numbers used for different situations. 112 is the single emergency call number but there are also local and regional emergency and information numbers, medical information numbers, emergency and information numbers of different authorities, traffic information telephone lines and specific numbers for different services (electricity distribution, water supply, etc.). Many people call 112 even if it is not an emergency as they do not know which number to call. Due to there being no permanent information number,

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rapidly developing events can cause massive calls to 112 which then gets overburdened. Most of these calls only serve the purpose of confirming the incident.

The Swedish Government therefore commissioned MSB in collaboration with SOS Alarm, the National Police Board and other stakeholders to present a plan for how the introduction of a special information number can be established. The plan shall define how the service can supplement the contact number 114 14 of the police and how it can be introduced to unburden the 112 emergency call number. There are similarities with work within the MASSCRISCOM Project as both aim at simplifying for individuals to receive and to give information in the event of crisis, lessening the burden on society's emergency call number and different authorities' phone numbers and increasing possibilities for two-way communication between the general public and authorities.

MSB has a coordinating role of supporting other public authorities to enable coordinated decisionmaking and dissemination of information - cross-sectoral consequence analysis and efficient use of public assets. MSB also assists the Government Offices with updated situation reports. The coordinating role is based on the principle of responsibility which means that each competent authority maintains its responsibilities. The experiences from previous crises for instance the avian flue, the Eyjafjallajökull eruption and the influenza A(H1N1) were that peoples' needs for information were comprehensive, there were reasons for trying to influence behavior and to reduce anxiety and different authorities were responsible for providing information but the information messages needed to be coordinated. An information service for coordinated information to the public was therefore established. MSB gave support to responsible authorities to create coordinated FAQ:s and other information to the public. The information service to the public was organized by MSB in collaboration with SOS Alarm and this service answered thousands of questions from the public and thereby lessened the burden on the competent authorities.

The conclusions in the plan for how the introduction of a special information number can be established, which MSB was commissioned by the Swedish Government to present, concludes that there is a need for a special information service for major events and crises and there are benefits for society to have an information number in combination with other communication channels. This improves communication between agencies and the public but the work on information issues should be built on a collaboration between authorities. The development within the information area is rapid and the communication behaviour changes constantly. It's therefore important that the information number is seen as a part of an overall solution for the whole chain of communication in a serious incident, furthermore taking into account that people will also use their own channels of communication. The basic requirements are that the separate information number is permanent, will lessen the burden on 112 and be well known by the public. It should be able to provide current, confirmed and coordinated information, receive and compile information and transfer this to the responsible authorities and also pass on calls to other actors, when needed. The proposal is to

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continue the planning and preparation of the introduction in two steps which are to be finalized in the autumn 2012.

On-going work in MASSCRISCOM

Håkan Marcusson, WP 3 Leader, MSB, gave a brief overview of the communication aspects, including scalability and channels available for communication. He also explained which channels or means of communication that can be used for warning the citizens in a fast and slow scenario respectively. The channel service level of the warning messages will depend on the needs and such elements as speed, geographic exactness, numeric precision, delivery guarantee and spam protection, how large the population is that has to be addressed and the robustness against lack of power and sabotage. The question of a special protocol for all the devices and selection of channels was also addressed. A flooding scenario was used to illustrate the execution of warnings by a rescue leader.

A joint presentation of the working methods in WPs 3, 4 and 5, a short summary of the results so far and a scenariobased demonstration of these results was made by Håkan Marcusson, WP 3 Leader, MSB, Björn Skoglund, WP 4 Leader, SOS Alarm, Per-Olof Hårsmar, SMHI, and Gunnar Bergström, WP 5 Leader, SOS Alarm. They underlined that there is a Swedish perspective in this presentation, although the final result is planned to be a generic model covering the strategic information level, the information gathering/supplying level and the operational level. Finally, Mats Stewart Ardbreck, WP 6 Leader, MSB, gave an account of the planning for the demonstration.

The working methods have been based on collective work, joint brainstorming, thereby making the best use of the participants' competence and experiences, and the elaboration of the model which will be the result of the work and presented jointly. The scenariobased demonstration will build on an actual very heavy rain event with flooding as consequense which happened on 26 - 27 June 2007 in the central part of Southern Sweden. About 720 000 people live in the central part of Southern Sweden, whereof about 50 000 in the worst affected area. Although the demonstration builds on an actual event, the measures taken by authorities and other actors in the scenario are in many respects adapted to visualize the MASSCRICSOM model.

The simulated scenario starts two days before the event, continues with the heavy rainfall and then illustrates the situation during the first hour (0 – 1 h), then during the following two hours (1 – 3 hs) and finally from the third to the sixth hours (3 – 6 hs). The Weather Service of the Swedish Meteorological and Hydrological Institute (SMHI) sends out hydrological information and a prognosis forecast about heavy rain in parts of Southern Sweden, the day of the event (D) minus 3 – 5 days, when an initial contact is taken with the Swedish Civil Contingencies Agency (MSB), reponsible for coordinating other Swedish authorities in crisis situations. SMHI is preparing to send

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out an alert, class 3 weather warning to the public. MSB and SMHI decide to inform the concerned authorities in a joint cooperation conference (within the ”Crisiscom” Conference System), and MSB contacts SOS Alarm to get the conference set up. The aim is to share a joint situation awareness picture. Joint weather conferences are then organized over the crisis management period of about five days. Alert messages are sent out as an individual subscription and individualized warnings are made. Different means of communication are used.

Preparations thus start before the heavy weather and its probable consequences are known. MSB together with the most involved authorities, in this case SMHI and concerned County Administrative Board(s), cooperate to form a joint message to the public and start preparing the FAQ-database for the Crisis Communication Centre (CCC). MSB prepares a joint message from the authorities to be published on the website www.krisinformation.se. The County Administrative Boards involved gather the local authorities, i.e. the municipalities, the rescue services, etc., to a regional conference. SOS Alarm and the CCC are increasing their preparedness to be able to escalate by summoning and preparing extra personel to man their respective centres. The rescue services are also raising their level of preparedness.

The CCC supports the competent authorities in creating awareness among local actors and companies dealing with the critical infrastructure and can also serve as a valuable source of information to, for example, municipal enterprises (water supply, sewage works and electric companies), water regulation companies and water management associations, large industries in the area and local transport companies.

On the day of the event within one hour 100 m.m. rain falls over the area. SOS Alarm receives several hundred calls about flooded basements, houses, gardens, roads, etc. The fire and rescue services in the area can only help in the most urgent cases. The flow in the waters is constantly rising, and SMHI is in close contact with the rescue services and the water regulation companies to monitor the level of water in the area.

The consequences of the flooding are that the embankment of the main railway line collapse and so do two main roads in the area which have to be closed. Industries further down on the river have to be evacuated. One dam breaks and several other dams are threatening to break. An important message is announced to the public regarding the consequences of the flooding and declaring that Bruzaholm is to evacuated in accordance witht the evacuation plan. The public is recommended to call the Crisis Communication Centre for more information 0046-555-xxxxxx. The Crisis Communication Centre gets many requests for information and many different communication channels are used. The calls can be positioned.

The information number(s) are in the model available for gathering information and giving information and advice to the public, the information number 115 00 with toggle selection for information in Swedish, 115 5X with toggle selection for information in other languages and 115 99 for information for the deaf and hearing impaired (text-

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telephone, textmessages, social medias, etc.). Information on 115 00 is given in the dominating and/or national languages, and a call to this number is answered as follows:

Welcome to the crisis communication centre. You will soon be able to choose between different options by toggle selection. If you have an emergency and need immediate assistance by police, ambulance or fire and rescue service, please hang up and dial 112. If you have information to give or want to speak to a call-taker, please press 0.

For case handling a common Internet protocol is to be used in the CCC, SOS Alarm Centres and all other sources of information defining what incoming calls/communication should contain and guidance on how to evaluate the information. An index is used and support is given to call-takers for how to gather information in a structured way, ensure that the proper questions are asked as well as that correct advice and information are given. Evalutions of the information can assist in classification of the crisis/accident and setting the priority of the call and defining the possible hazardous area. Questions and answers can be prepared in advance for different kinds of crisis.

There will be a monitoring function which constantly monitors incoming data from CCC and all other available sources and serves as a the link between the CCC and the authorities This is the alarm function for the authorities in accordance with guidelines for when and in what cases concerned authorities should be warned. It also uses anomaly-detection as a tool, i.e. finding patterns in data that doesn´t correspond to normal or defined data. Throughout the crisis, the responsible authorities continously exchange information, creating a joint situation awareness picture and thereby a joint message to the public. MSB is responsible for informing and up-dating the advice and information to the public which is done by web:

- crisis information in general http://www.krisinformation.se
- incident based plotting of accidents/events in a joint situation awareness picture http://www.samverkanswebben.se
- description of measurements taken, decisions made in the Web-based Information System WIS http://wis.se

A number of questions remain to be resolved in MASSCRISCOM:

- anticipated answering time for communication between the public and the CCC
- how many call-takers should normally man the CCC
- how can the CCC quickly upscale its manning when a crisis occurs (this is easier when a crisis grows slowly than when it increases quickly in complexity)

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- how many and which actors/authories should be connected to CCC and involved in the information system
- to what extent have other countries introduced probability forecasts if so how are they used and what is the added value if any
- how long before an expected hazardous weather event are early warnings given in different countries
- should weather warnings contain both weather data and assessments of the expected impact in the threatened area
- also other questions remain to be addressed

The Seminar was closed after a final discussion of the needs for continued/enhanced development of crisis communication in supplement to the discussions conducted already in connection with each session.

21 October 2010

Steering Group Meeting

The Steering Group held a Meeting and dealt with the following issues:
- a follow up and evaluation of the Seminar
- WP progress and planning of the future work in preparation for the demonstration
- review of the Action Plan for the remaining work within MASSCRISCOM
- remaining administrative and economical matters including preparation of an application for amendment of the contract.

ANNEX I

Seminar Participant List

European Commission

1. Silvio Mascagna - European Commission DG HOME

Åland

2. Peter Lindbäck - Governor, Åland State Provincial Office
3. Rainer Åkerblom - Åland State Provincial Office

Finland

4. Janne Koivukoski - Head of Unit, Rescue Department, Ministry of Interior

Germany

5. Dr. Peer Rechenbach - Head of Civil Protection, Hamburg

Iceland

6. Jon Agust Sigurjonsson 112 Emergency Alert
7. Thorhallur Olafsson – 112 Emergency Alert
8. Kristin Thordardottir – Deputy Chief of Police

Sweden

9. Björn Sola - Ministry of Defence
10. Svante Werger - Director of Communication, MSB
11. Stig Ekberg - Civil Protection Director, Uppsala County Administrative Board
12. Arne Åhman - Uppsala County Administrative Board
13. Ulf Bjurman - Senior Advisor, Uppsala County Administrative Board
14. Anna Nyman - Head of Coordination Unit, MSB

15. Inger Frendel - Swedish National Crisis Communication Website, MSB
16. Håkan Marcusson - Communication Expert, MSB
17. Mats Stewart Ardbreck - Senior Expert, MSB
18. Per-Olof Hårsmar - Swedish Meteorological and Hydrological Institute
19. Rune Forsell - Senior Advisor, SOS Alarm
20. Björn Skoglund - Senior Expert, SOS Alarm
21. Gunnar Bergström - Head of Regional 112 Centre, SOS Alarm

Estonia

22. Janek Laev - Director, Estonian Emergency Response Centre (ERC)
23. Jaan Tross – Director, Estonian Crisis Regulation Department
24. Lauri Lugna - Estonian Ministry of Interior, Head of Rescue and Crisis Management Department
25. Alo Tammsalu – Deputy Director General of Estonian Rescue Board
26. Herve Merivald – Head of the Information Number Department (ERC)
27. Priit Laos – Estonia, Rescue Board, West Region Crisis Management Department Director
28. Evelin Uibokand – Estonia, Rescue Board, Southern Region Crisis Management Department Director
29. Liina Järvi – Estonia, Rescue Board, Eastern Region Crisis Management Department Director
30. Edvi Freiberg – ERC, Communications Specialist
31. Mari-Liis Lääts – ERC, TETRA networks Specialist
32. Marian Värbu – Deputy Chief of North Estonia ERC
33. Alina Jakel – Training and Development Department
34. Rivo Salong - ERC, Development Department, Advisor
35. Meelis Mesi - ERC East Region, Director
36. Inga Kaaber- ERC East Region, Deputy Director
37. Katrin Saarleht - Head of the Environment Information Number Dept (ERC)
38. Aneli Šmigelskite - Deputy Head of the Service Number Department (ERC)
39. Ene Hauvmann - Deputy Director, Estonian Emergency Response Centre
40. Eva Rinne - Head of the Training and Development Department (ERC)
41. Kaur Sarv - Estonian Emergency Response Centre
42. Triin Vihalemm - Tartu University
43. Eleka Rugam-Rebane - Estonian State Chancellery, Government Communications Unit, Advisor
44. Viola Murd - Estonian Rescue Board, Communications Department
45. Marko Lipp - Estonian Northern Region Crisis Management Department Director
46. Tarmo Sulg - Tallinn City Government Representative
47. Viljo Rannala - Tallinn City Government Representative
48. Peeter Volkov - Director of Environment Inspection
49. Olav Avarsalu - Deputy Director of Environment Inspection

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50. Himot Maran - Advisor of Environment Inspection

ANNEX II

Agenda

Seminar

within the framework of the
European Commission – Directorate-General for Home Affairs Project,
under the Specific Programme Prevention, Preparedness and Consequence Management of Terrorism and other Security-related Risks (CIPS),

Tuesday 19 – Wednesday 20 October 2010 in Tallinn[†], Estonia

on

Mass Crisis Communication with the Public

(MASSCRISCOM)

hosted by the
Estonian Emergency Response Centre, Estonia Rescue Board

MASSCRISCOM addresses the need for improved protection of the public and infrastructure and two way crisis communication between authorities and the public. The Project will focus on nuclear accidents and other very serious emergency situations or crises, which lead to mass crisis communication situations, i.e. situations:

- when the public needs to be warned and receive far more information than in connection with everyday accidents
- when a great number of people may require immediate help at the same time and
- when many people are seeking information from the emergency services about the event and what action to take.

Requirements will be analysed and identified for ensuring efficient communications, also by implementing new media, for warning of people in defined affected geographical areas and providing information on adequate action to take. The objective is furthermore to improve the reliability of risk communication and mass crisis

[†] venue: Radisson Blu Hotel, Tallinn http://www.radissonblu.com/hotel-tallinn/location, Rävala pst.3, 10143 Tallinn, Estonia Tel: +372 682 3 000

communication in general. A model for the introduction of a separate information service number and managing a service for exchanging information with the public will be considered with the aim of lessening the burden on the 112 Emergency Call services in crises situations. The received information from the public can provide an input to the situation awareness of the involved crisis management authorities.

19 October 2010

11.00 Opening Session

Welcome address by Janek Laev, the Director of the Estonian Response Centre and presentation of the MASSCRISCOM Project by Stig Ekberg, Project Coordinator and Manager, Civil Defence Director of the Uppsala County Administrative Board/Ulf Bjurman, Senior Advisor.

Overall crisis communication policies - Opening Speakers

- Lauri Lugna, Head of Department, Ministry of Interior, Estonia
- Björn Sola, Senior Advisor, Ministry of Defence, Sweden
- Rainer Åkerblom, Head of the Police and Rescue Unit, Åland Government
- Silvio Mascagna, European Commission DG HOME - Commission crisis management system

12.30 Lunch

Collaboration in crisis communication between different actors/recent and on-going structural changes affecting crisis communication
(Changes in procedures and administration of crisis management and communication for instance by integration and co-localisation of the services of different actors to improve collaboration have been introduced or are under way. This has been or can be facilitated by the use of modern technology. Also needs for rationalisation and improved efficiency of the public administration lead to structural changes primarily the regional level which affects crisis management and communication.)

13.30 Finland - Janne Koivukoski, Head of Unit, Rescue Department
13.50 Sweden – Svante Werger, Director of Communication, MSB
14.10 Estonia – Eleka Rugam Rebane, Estonian State Chancellery, Government Crisis Communication Department, Advisor
14.30 SOS Alarm - a new strategy, organisational structure and working methodology for SOS Alarm introduced on 1 October 2010 – Gunnar Bergström

14.50 Coffee break

Experiences from crisis communication

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(In recent years a number of crises, such as the vulcano eruption and its effects, severe weather conditions and the pandemies, combined with a more proactive behaviour and requirement by the public for receiving and being able to find information in crisis situations has underlined the urgent need for improved crisis communication.)

15.10 Vulcano eruption, Iceland – Kristin Thordardottir, Deputy Chief of Police Department
15.30 Thunderstorm with severe consequences, Estonia - Janek Laev, Director, ERC
15.50 Storms with heavy rain/high sea level (Gothenburg and Malmö) affecting 112 services, Sweden - Rune Forsell, Senior Advisor, SOS Alarm

16.10 Presentation of the survey "The patterns of receiving and processing emergency information" - Triin Vihalemm, Tartu University
The survey focused on the perception of crisis communication information by the citizens, who experienced real-life crisis events in Estonia. The survey also showed how people reacted to the crisis communication messages and which actions were taken by different social and age groups.

16.55 Presentation of the MASSCRISCOM survey about the Estonian state officials' perceptions on crisis communication co-ordination - Eleka Rugam-Rebane, Estonian State Chancellery, Government Communications Unit.

18.00 Demonstration/Study visit to the Estonian Emergency Response Centre by Kaur Sarv and Rivo Salong

19.30 Common dinner in restaurant MEKK, Suur-Karja 17/19

20 October 2010

09.00 General development and other experiences of crisis communication and general discussion

10.00 Coffee

Experiences and introduction of information number(s)
(The increasing use since a few years in Estonia of information numbers, handled in a separate service, co-located with the 112 Emergency Call service, has decreased the burden on the 112 service. Responding to non emergency calls has decreased. This Estonian service is expected to be developed further and perhaps even merge into a single information number. Also in other countries the introduction of a information number(s) to improve the 112 and crisis communication capacity can be expected.)

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10.30 experiences from the implementation of information numbers in Estonia and possible further development of the service – Herve Merivald and Kaur Sarv, ERC
10.50 plan for introduction of information number in Sweden – Inger Frendel, MSB
11.10 other experiences of information number(s)
11.30 general discussion

12.30 Lunch

On-going work in MASSCRISCOM

13.30 presentation of WP 3 outline – Håkan Marcusson, WP Leader, MSB
13.50 presentation of WP 4 outline - Björn Skoglund, WP Leader, SOS Alarm
14.10 presentation: Design of individualized weather warnings - Per-Olof Hårsmar, SMHI
14.30 presentation of WP 5 outline - Gunnar Bergström, WP Leader, SOS Alarm
14.50 presentation of demonstration planning - Mats Stewart Ardbreck, WP Leader, MSB

15.10 Coffee

15.40 final panel discussion of the needs for continued/enhanced development of crisis communication

16.30 Closure of the Seminar

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ANNEX III

A summary of some results of an integrated research study on The patterns of receiving and processing emergency information - cultural experiences and information searching habits presented by Triin Vihalemm, Tartu University, Institute of journalism and communication.

The integrated research was based on a case study with three focus groups conducted with retrospective interviews with people who had actually survived the storm and floods in Pärnu in 2005, a "laboratory" research of reactions of seven focus groups to the simulated warnings of different types of threat (storm, chemical pollution, radiation) and a survey with standardised answers to the questions about possible behaviour strategies and preferred information sources in the times of crisis (radiation). Some patterns came out as a result of the factor analysis.

The survey thus focused on the perception of crisis communication information by the citizens, who experienced real-life crisis events in Estonia. The survey also showed how people reacted to the crisis communication messages and which actions were taken by different social and age groups. The main results of the analysis of peoples' information seeking habits, reaction to the warning messages and behaviour (real and intended) in the crisis were based on the questions:

- What are the warning message response strategies utilized among the lay public?
- Which factors support the response efficacy of the warning?
- What are the barriers hindering the response efficacy of warning, especially the instructing information?
-

Another outcome was a discussion of the possibilities of strategic planning of pre-crisis communication.

The strategy of following and trusting the mass media

- Traditional and new mass media is preferred information source in times of crisis and following it is considered appropriate in the situation of serious threat (like radiation)

- The pattern connects with active and varied media usage and high trust towards institutions

- *characteristic to (ethnic) majority, people with higher education, people in their thirties-forties*

During the night of the flooding in Pärnu…

- …some respondents made an extra effort in order to stay in the infosphere. It gave them some (psychological) feeling of security:

- *When the water covered the stadium near our house electricity was cut off. Then I took the batteries out of a torch and put them in the radio. The radio was on all night...information was delivered all the time by the state radio station (public broadcasting) and we followed it*

Repeating of information, certain trusted channels generate trust and raise response efficacy

- *At six o'clock in the evening the Estonian Television (public broadcasting) started to warn that the storm was coming and that there would be a rise in the water level. I didn't believe it at first because I wasn't in Pärnu in 1967 (the previous flood T.V.) ...But at 9 o'clock, when Aktuaalne Kaamera (the main evening news broadcast) T.V. very seriously talked about it I went and put my car on a little hill in my garden //What do you mean by "very seriously"?// It was the third time it was announced and from such a serious channel as Estonian Television ...I don't take the commercial television channels that seriously*

Reactions to the simulated warnings

- Trusting the instructive information, i.e. when hearing the warning about radiation:

- *My first thought listening the message was that I should leave the town immediately…but then it was said that it is no need no reason to leave the area, just stray indoors….so I would do so*

- The information presented in the official message is sufficient:

- *They (Estonian Television) are connected with the crisis centres and there is no sense in people trying to contact these centres directly… the lines would be busy anyway*

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- An informal warning *(friend calls and infomrs that dangerous chemical substances may be emitted to the atmosphere and to the lake of Ülemiste as a result of accident in a plant near Tallinn)* is not trusted unless confirmed by the mass media:

- *It could be just rumours: 'an old lady said'... Why should you trust every rumour? I would listen to the national radio and watch TV. I'm sure that they would inform us if something like this (chemical pollution T.V.) happened!*

Pattern of networking

- In some cases people may not feel satisfied with the information given by the massmedia but actively seek additional information from personal communication networks: family members, friends and acquaintances, who are considered to be experts in the area, and obtain additional information directly from institutions – for example by calling 112

- The critical reflection over the information provided but the wish to put together ones' "own" picture from various fragments of information is characteristic for this response pattern

- *characteristic to (ethnic) minorities, people with higher education, younger people*

During the night of the flooding in Pärnu…

- …some people paid attention to the warnings in the mass media after they got the same information from their acquaintances:

- *I have a trustworthy information source in Stockholm, an Estonian lady who always calls me when a storm is on its way to Estonia. She follows the (Swedish) weather forecasts and a cyclone always moves in a certain way, so I begin shivering when she calls. She also called that day (before the floods T.V.)*

During the night of the flooding in Pärnu…

- …the first warning by the mass media was combined with information obtained from specialized information channels in order to get a picture of the local situation:

- *We got the first warning from the Estonian Television, but after that we started to call the Pärnu Harbour. They have an automatic weather forecast station. So we got a pretty good picture of how fast wind and water were moving... We took potatoes out of the cellar. Afterwards, when the water level was at its maximum, there was no connection any more but then it didn't matter anyway...when you have water in your house...*

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Reactions to the simulated warnings

Calls to friends-acquaintances and institutions after having heard the warning. Various reasons for utilizing this strategy. People may…

1. … feel that they can better control an unstable situation this way:

- *I would follow the official information and probably call the relevant official services, But I would also ask my friends. Many of them are specialists in different areas – what they think about all this? And then I would draw conclusions myself on the basis of all this information*

When hearing (simulated) warnings people make calls because they…

2. … want to get some sensitive information which could be obtained mainly from acquaintances who were working in the relevant institutions:

- *I know people who work in a relevant sector or may be more informed than the radio. If you talk to others you get reasonable information – there is no bluffing*

3. …not to trust communicator:

- *Various facts are used by different political groups in their own interests in the media…in order to lift somebody up or to humiliate somebody….. I suppose that people who are responsible for this situation will try to cover up this information in order to avoid responsibility. I am not saying that this is definitely true, but I do not exclude it, as people in high positions usually take care of themselves first; they want to protect themselves*

Sceptical attitude towards instructing information

People consider that institutional warning may not contain all information needed to take relevant action to protect themselves, because…

- …government may want to avoid panic and traffic jams and thereby suggest not leaving the area;
- …government has no special shelters and thereby suggests staying indoors as a sufficient measure to avoid radiation

- *This is doubtful! It really depends. Not all walls can protect you from radiation; it's obviously said in order to avoid panic*

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When the warning message forbids personal calls in order to keep the telephone lines open for distributing official information it comes into serious conflict with the peoples' lifeworld:

- *I would definitely call my family, even if the authorities advised against doing so – they are my family after all*

  - Prohibiting the telephone calls is likely to increase psychological insecurity

  - This may also prevent the information reaching those segments of population who do not follow official information channels (like grandmother in the countryside, Russian-speaking neighbour who do not follow local media)

The strategy of (non)action without checking information

There can be situations where some people, having heard about a possible threat, do not consider seeking additional information from outside sources. They "leave the space" where the information circulates and may just act (e.g. escape) or ignore a warning (e.g. go out to look at the storm), relying on their own experience.

Shock at the time of flooding in Pärnu

- *It (the storm) was totally unexpected ... we were at a party in the evening and didn't notice anything when we came home. We went to sleep and I was awakened by our neighbours at 5.19.. I looked at my watch. The neighbours told me to move quickly because the water was coming. ....I didn't know where to go and the neighbours invited me to their place...they do have a second floor. ...I started to wake up my kids...I actually forgot that I had a son... I woke up my little daughter ...and then I sat somewhere in the dark ... somewhere on the second floor... I didn't know anything...even that it was my neighbours' bedroom...*

Storm – ignoring the warning

  - A victim of the storm in Pärnu told that he was woken up by the flashlights of cameras – people had come to see the flooding.

  - People living close to the shore also complained that they could not move their cars to a safer place because the cars of those who had come to watch the storm blocked the streets.

  - Responding to the simulated warning about coming storm a young man explains:

- *I believe that I have seen enough and I know Estonian weather – fortunately it does not change very quickly – and I am able to say whether trees would be falling over*

and things would be flying or whether it is just a strong wind that is manageable. I try to assess the situation adequately.

Reactions to the simulated warning message about radiation

- The instructive information contained in the warning message was responded but in the oppositional way:

- *How much time is there until it (the radioactive cloud) reaches Estonia? Several hours… I would still check if there were tickets on some flights and would try to leave if there were places available… It doesn't matter where, just to stay away for some days*

- *I would still leave the area with my family …. There is no way I would stay and wait for it to reach Tartu, not indoors nor with iodine pills*

Factors that facilitate this pattern

- The belief that public authorities would diminish the threat intentionally (to avoid panic) or unintentionally (because of the lack of expertise).

- Socially stigmatised threat (disaster in Chernobyl)

- Distrusted communicating institution and big perceived risk increase the probability of employing the oppositional action strategy without seeking information.

- It is a hard task to communicate about danger and give instructions to the audience utilizing this response pattern.

- The response strategies were utilized for processing the warnings given in different formats

- Our study informed that a person may internalize different response patterns in different situations of threat. The usage of the response patterns seems to depend much on the specific situation

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The instructive information contained in the warning message:

> *Announcement from the Radiation Control Centre and the Ministry of Internal Affairs: There was an accident at XX nuclear power station resulting in an emission of radioactive substances in the environment. The leak started at 7.45 this morning. A could of radioactive particles is moving towards Estonia and will reach the east of Estonia at 13:00 the earliest. Until that time the level of radioactivity will be normal in Estonia. The inhabitants of the ..... County A, B, C are asked to stay tuned for more information. In the next message delivered at 10:30 at the latest the rural municipalities will be listed where people should seek shelter indoors. The necessity to stay indoors will start in the east of Estonia at 13:00 the earliest. Please keep iodine pills close at hand but do not take them before it is officially recommended. Precise instructions on taking shelter and taking iodine pills will be forwarded on the radio and on TV. There is no reason to leave the area. The radioactive cloud will persist for about two days and people should stay indoors also for about two days. Radioactivity will not rise to the level that would threaten health. However, people should protect themselves from radioactivity in order to minimise exposure. It is sufficient to stay indoors during the time the cloud moves across Estonia. Farm animals and pets, their feed and drinking water should also be protected. Please refrain from using the phone in order to keep communication lines open. This will ensure that important official communication is maintained. Further information about the situation is provided on the radio and on TV.*

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