



The International Emergency Management Society

Members Newsletter – Issue 5 – December 2006



Featured in this issue:

Fighting fires on the Betuweline

European Public Safety Communications (PSC)

Models for Critical Infrastructures Protection

A Project for Multi Hazard Warning Systems

TIEMS News & Updates



Make a date in your diary...

5th – 8th June 2007...

TIEMS 2007 Annual Conference

See page 9 for further details

Message from the President

I am glad to report that TIEMS has experienced another successful year, and this has only been possible with the support of our members, and for this I would first like to thank you all. We have during the course of 2006 hosted a number of successful workshops around the globe, and of course one of our most successful annual conferences yet, in May 2006, in Seoul, South Korea.



Presidents
Message

The catalogue of emergencies over the last year, caused by both mother-nature and industrial accidents serves to further emphasize the need for global cooperation in emergency management. And these events have proven to be an invaluable opportunity for those involved in emergency management, and its related fields from across the world to share experiences, and knowledge, and help develop and improve international standards. We have further strengthened these opportunities this year for our members by our involvement in projects such as the PSC project covered later in this newsletter.

With 2006 now nearly behind us we now point our attentions to 2007, and as well as continuing toward our goal of creating stronger links and networks for emergency managers worldwide, we are also hopeful of another successful conference in Croatia in June 2007.

Finally I would like to wish all of our members a Happy Christmas, and a peaceful and successful 2007 and hope we can count on your continued support.

K Harald Drager

Editors Welcome

I would like to take this opportunity to welcome to TIEMS all of our new members from the last TIEMS annual conference in Seoul. The conference was a great success realised in the whole by the great efforts of the Korean Chapter. A report from the conference is included later in this newsletter.

Also inside this issue we feature several valued contributions from our members on a range of issues, which we hope, will be of interest to all and trigger further discussions between researchers, stakeholders and government authorities about the new challenges of emergency management.

We hope you enjoy reading this issue, and as always your comments, suggestions and contributions to improve the TIEMS newsletter are always welcome.



Editors
Message

Alan Jones

Technical / Sub Editor
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Claudio Balducelli

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Cooling a Railtanker Behind a Noise Shield

by Nils Rosmuller, Netherlands Institute for Safety

In the Netherlands, the Betuweline (a dedicated freight railway), will among other things, be used for transportation of all kind of hazardous materials from the Port of Rotterdam to the German Hinterland. The line is about 150 kilometers long, alongside which over more than 100 kilometers of noise shields are apparent.

In case of an accident, pool-fires could occur and railtankers could as a result become heated. To prevent the railtanker for getting overheated and exploding, cooling is essential. The question is to what extent do noise shield hinder the cooling of a rail tanker, carrying for example flammable liquids, such as LPG?

The example below of a propane loaded rail tanker accident at Lilleström (April 5th, 2000, Norway) shows the importance of effective cooling (Norwegian Ministry of Justice, 2001).

On the basis of the investigations and analyses that have been carried out, the Commission is in no doubt that a Boiling Liquid Expanded Vapor Explosion (BLEVE) would have developed with catastrophic consequences on the night of the 4th April if cooling of the tanks had not been undertaken. At the time the catastrophe would have occurred, evacuation had not been started. It must therefore be assumed that under these circumstances more than a hundred people within a radius of 500 meters of the tanks would probably have been killed instantly by thermal radiation. In addition several hundred would probably have been seriously injured, perhaps receiving life-threatening injuries.

Furthermore, fires in a large number of buildings would probably have meant that many people would have been unable to get out in time.

Theory and method

In theory, 10.2 liters of water per minute per square meter of the tanker surface is sufficient to cool a rail tanker, as the one shown below. Cooling prevents the pressure increase in the tanker: the temperature increase of, for example, a flammable liquid is limited.



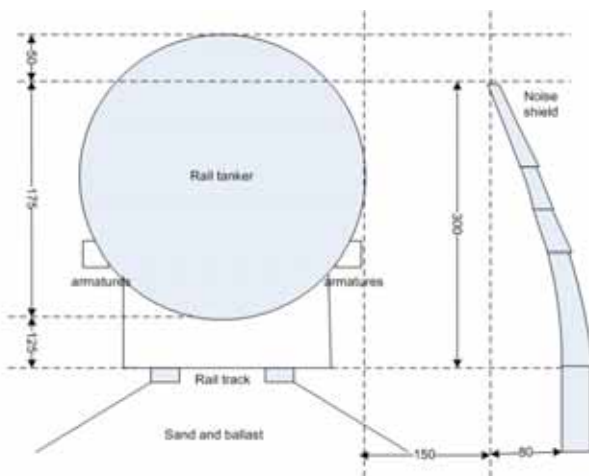
'Sufficient cooling' means that the pressure in the rail tanker does not reach a peak that causes a BLEVE. A BLEVE is best described as a huge fireball (hundreds of meters) accompanied by tremendous pressure peak levels. All things in about 150 meters of the blast area is destroyed. To prevent such catastrophic consequences, the rail tanker should be cooled over its total surface. For a typical rail tanker on the Betuweline, the 10.2 liters water per minute per square meter implies 6000 liters per minute. In addition, this amount of water should be applied for at least 4 hours.

In case of insufficient volumes of water reaching / hitting the rail tanker, heat radiation might cause pressure increase within the rail tanker and in the end an explosion endangering inhabitants along the line and emergency responders. In addition, fires might expand to adjacent rail cars causing a domino effect including the release of hazardous materials or additional explosions. To protect both inhabitants and

emergency responders, it is important to find out if and to what extent the noise shields influence the cooling opportunities for fire brigades.

To answer this question, a full-scale test was conducted on an already constructed part of the Betuweline. Two railcars and a rail tanker in the middle of the railcars were placed behind a three meters high noise shield.

The Betuweline noise shield varies in height from 1 to 4 meters. A test location was selected where a 3-meter high noise shield has already been realized on one side. The figure below presents a front view of the test arrangement.



Four positions for water canons to cool the rail tanker were tested, and the spots, and extent of water contact to the rail tanker, monitored by three cameras and observers.

Results

The results indicate that the noise shield to large extent prevented the water from hitting, and therefore cooling, the rail tanker. The upper parts of the rail tanker were hardly hit by the water canons and the small amount of water flowing down the rail tanker did not reach the lower parts of it because of the armatures at the rail tanker.

Only in the test configuration in which 2 water canons were positioned in between the railtanker and noise shield (angle about 5 to 10 degrees) gave some indications the water beams hit the railtanker. The difficulty

however in this potentially successful configuration, is how to get the water canons at these spots during an accident involving fire and hazardous materials. Getting the water canons in the preferred positions however would induce large risks for fire fighters, while, in particular remote areas hardly anyone, but possibly the train driver is in danger.

In more densely populated areas more urgency for cooling the tanker might exist, and therefore some risks for fire fighters might be acceptable. However, the amount of water by the preferred test configuration might still be insufficient for cooling the tanker and preventing it from exploding.

Conclusions and Recommendations

The following conclusions are drawn from the experiment:

- A converged water beam better hits the rail tanker than a diverged water beam
- Water canons operated by firemen better hit the rail tanker than oscillating water canons, but this meanwhile involves a larger risks for the firefighters
- Positioning the water canons in between the railtanker and the noise shields gives the best results, however the amount of water hitting the tanker is still small
- The 3-meter high noise shield causes water from canons behind the noise shield to hardly hit the upper parts of the rail tanker and lower parts of the rail tanker are not hit at all
- Water runs down the rail tanker, however it does not reach the lowest points
- In absence of the noise shield, water canons fully hit the rail tanker
- A water pool develops between the noise shield and the track

The following recommendations were made:

1. Take noise shields into account when preparing for incident management at the Betuweline and take into account the risks to fire fighters
2. When preparing for incident management, take into account the development of a pool between the noise shield and the track, due to the squirted water volumes
3. If water canons are necessary for squirting water, then it should be tuned into a converged beam and positioned rectangular to the rail tanker
4. Assess the cooling capacity of the water running down the rail tanker
5. Investigate the opportunities for replacing / relocating armatures on the rail tanker

6. Reconsider the primary direction for repression activities with respect to the noise shield presence
7. Assess the influence of a 2 meters high noise shield
8. Consider various strategies for cooling a rail tanker behind a noise shield and take into account the risks for fire fighters

Right at this moment, the Netherlands Institute for Safety is developing a full-scale test for validating practical solutions.

Acknowledgement

This research has been funded by Railplan, the project organization responsible for the preparation of the emergency response organizations in the regions in which the Betuweline and the High-speed lines are aligned.



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See page 14 for details

**BUSINESS CONTINUITY
MANAGEMENT CHALLENGES
FOR 2007**

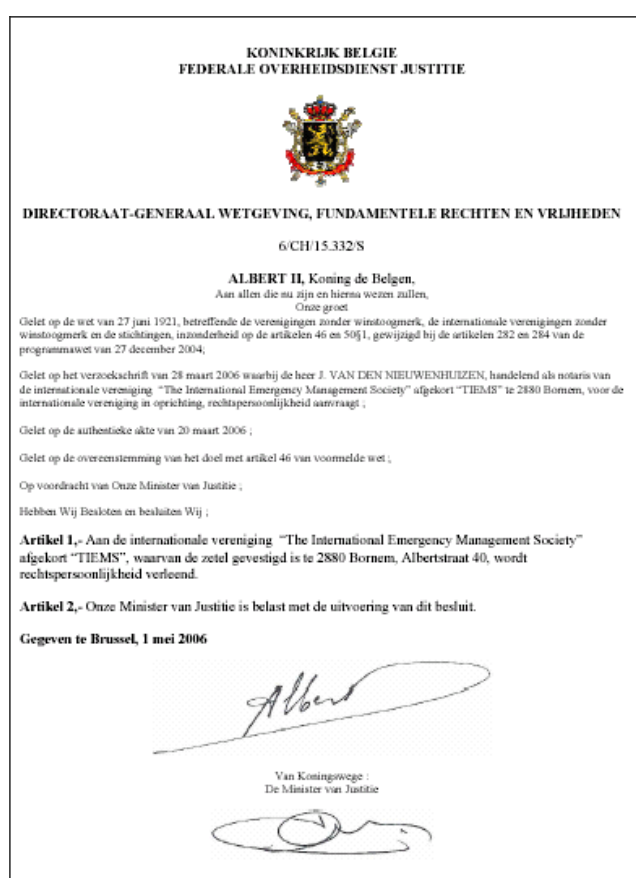
29 – 30 January 2007 Hayley Conference Centre, Old Windsor, Berkshire.

TIEMS i.n.p.a

Registration Status

By Giedo Van Pellicom

I am pleased to report on behalf of the TIEMS board of Directors, the completion of the registration of the society in Brussels as an International Non Profit Association (I.N.P.A). The society received Royal Decree (signed by HM King Albert II) in May 2006, as shown below, and all official paperwork has now be submitted to the registration office to confirm the board of directors.



(TIEMS i.n.p.a. Royal Decree)

Below is a list of those officially registered as members of the board with their remaining term in office given in brackets:

President: K. Harald Drager (1)

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TIEMS Registration Officer: Giedo Van pelicom (1)

TIEMS Ambassador: Yuki Karakawa (1)

The official registration address for the society is (for registration issues & official papers):

TIEMS i.n.p.a, Albertstraat 40, B-2880, Bornem, Belgium

However members are reminded that the office postal address for the society remains as:

TIEMS, Ostvangveien 29, 0588 Oslo, Norway

Public safety Communication Europe

An EU Commission Initiative

By K Harald Drager

The background

Recent events in Europe and other parts of the world have again demonstrated the need for the effective and timely exchange of accurate, up to date, and intelligible information between all those involved in and responding to accidents and disasters. This requirement applies both during major emergencies and day-to-day operations and is vital in cross border co-operation.

The diversity of current technologies and the speed with which enhanced and new technologies are emerging, can impact on the ability to achieve this goal effectively though. It is therefore imperative that new systems are carefully evaluated against clearly defined requirement criteria.

The initiative

To approach and resolve these matters, and with the support of the European Commission, a “Forum for Public Safety Communication”, (PSC Europe Forum), has now been established.

The project; ‘PSC Europe’ focuses on establishing and maintaining a Forum for regular exchange of ideas, information, experiences and best practices, and on seeking agreement among participating stakeholders on:

- Consolidated user requirements,
- Solutions for inter-operability of communication systems
- An R&D road map for future activities
- Guidelines for policy makers and regulators, for the improvement of global European or national inter-operability through harmonized technologies.

The Forum’s conclusions and recommendations will be put together in Memorandum of Understanding, to be

submitted to relevant authorities and representative bodies for agreement and action.

More information on the project and different work packages can be found at the project web-site:

www.publicsafetycommunication.eu

The PSC Europe Forum Consortium

The PSC forum is a Special Support Action funded by the EU Commission under the 6th Framework Program. The Consortium contracted for the work comprise the following organizations:

[Helsinki University of Technology \(Finland\)](#)
– Project Lead

[BAPCO \(UK\)](#)

[EADS Secured Networks SAS \(France\)](#)

[Martel–Business Consulting Co.](#)
(Switzerland)

[National Technical University of Athens](#)
(Greece)

[SQUARIS Consultants](#) (Belgium)

[Thales](#) (France)

[The International Emergency Management Society \(TIEMS\)](#) (Belgium)

[Universidad Politécnica de Madrid](#) (Spain)

TIEMS involvement in the project

TIEMS support this initiative, and is involved in the project with responsibility for work package 3 (WP3) of the project concerning consensus building and the forum.

Under the direction of the Forum Conference Steering Committee, WP3 will establish a European consensus building process within the Public Safety Stakeholders:

- End – users
- Technology providers
- Service providers
- Researchers
- Standardization bodies

WP3 will assist with the development of a consensus “white paper document” for Public Safety Communication on:

- Research and Development Roadmap
- End - User Requirements
- Harmonization and Standardization

WP 3 will also be responsible for:

- Coordination in establishing and running the European Public Safety Communication Forum
- Co-ordination, with all other Work Packages, of consensus building at authority level
- Establish and support the electronic forums
- Building consensus at Stakeholders level
- Establishing and maintaining the website including technical specifications

WP 3 will also support WP 1 in establishing a set of operational scenarios

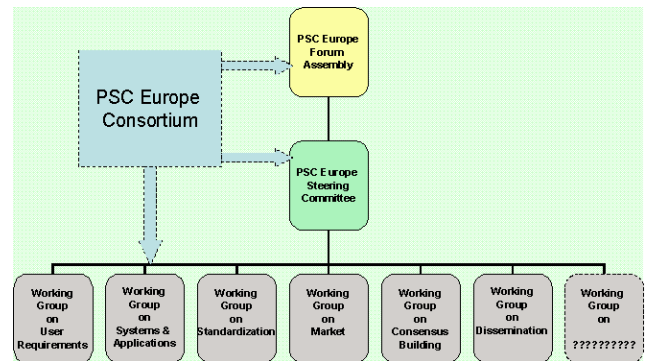
WP 3 will work in close cooperation with WP 4 on conference logistical support and Web-site design and operation.

WP 3 will support the other work packages in order to achieve the projects overall goal.

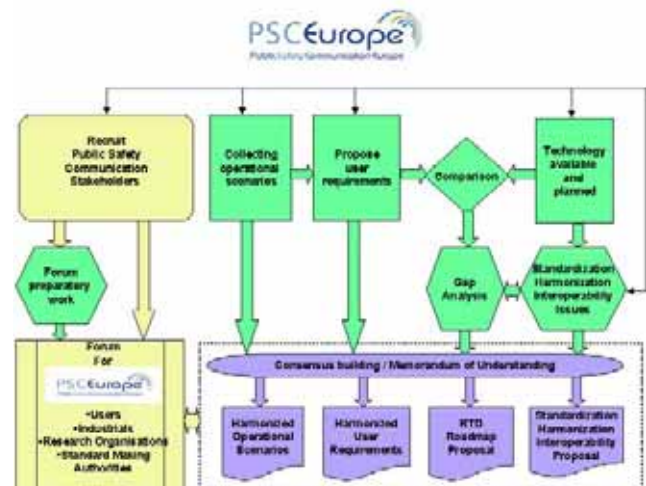
Project progress

The project is progressing according to plans, and the interest for the project and the PSC Europe Forum is overwhelming. And as of the end of November 2006 had 139 registered members from 31 different countries. The diagram below sets out the

structure established for the management of the project.



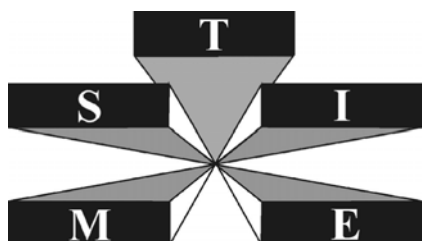
During IST 2006 in Helsinki in November 2006, the project and PSC Europe Forum was introduced and discussed. The suggested Forum structure and the development plan for establishing the Forum structure are illustrated below.



A discussion Forum opened at the beginning of December 2006 on the project web-site, where discussions on key public safety issues will take place, preparing conclusions and recommendations in Memoranda of Understanding for endorsements by the Forum at a later stage.

We encourage all TIEMS members to register on the forum and welcome their contribution, to this project. The project web-site is also continuously updated with information and progress of the Forum development and achievements, and is available from:

www.publicsafetycommunication.eu



TIEMS 2007

5th - 8th June 2007

DISASTER RECOVERY AND RELIEF Current & Future Approaches



Trogir, Croatia



Preparations for the TIEMS 2007 annual conference, are now well under way, and to date we have received a total of eighty proposed papers, representing twenty seven different countries, and covering a wide variety of interesting and innovative issues on emergency management.



Conference Location

This years event will be held in TROGIR a small medieval resort town, situated on an island of the Croatian mainland, just four kilometers from Split international airport.

Trogir by its very meaning is a town-museum and a delight for lovers of cultural and historical monuments, art, and architecture, from Romanesque yards to modern interiors, and the UNESCO protected castle and tower.



The Trogir Riviera is rich with numerous bays, capes, and beaches, and also benefits from picturesque views over areas covered with Mediterranean vegetation, vineyards, and larger alpine forests.



Conference Venue & Accommodation

The conference this year will be hosted in the hotel Medena situated on the Trogir Riviera, close to the city and amidst a mature 60 hectare pine woodland. The hotel has extensive conference facilities and all the amenities to make our delegates stay as comfortable and enjoyable as possible, both during the conference and after if delegates choose to take a few days to further explore this intriguing country.

Creating a worldwide network for Emergency Managers



Regional Center for Assistance
and Disaster Relief - Croatia



Faculty of Maritime Studies
Split, Croatia

Central or Federal model for Critical Infrastructures Protection?

By Claudio Balducelli

Efficient emergency management strategies, when Critical Infrastructures (like power grids, transportation networks etc.) are involved, require effective co-ordination between public authorities and the different infrastructure operators.

The stakeholders of the infrastructures use many more or less sophisticated tools to execute emergency procedures and to be aware of alarm levels, anomalies, and malfunctions inside their own infrastructure. They have also the degrees of freedom to establish the "optimal management" of the services produced by their own infrastructure.

Availability and integrity of external services, coming from other infrastructures on which their own infrastructure depends, are often constrained not "negotiable" in short / medium time.

This theme was addressed, during spring 2006, within the framework of the TIEMS working group (Critical Infrastructure Protection) email forum, between Claudio Balducelli (from ENEA Italy), Chris Flaherty (from University of Melbourne Australia) and Giuliano Basso (from Energy Solutions Europe).

What follows is a paraphrase of the discussion that took place:

Initial mail by Claudio Balducelli, April 26

During a Workshop held on 26 of April 2006 at the headquarters of the Italian Civil Protection Mr B. De Bernardinis illustrated the structure and the actual working model of the Italian Civil Protection Organisation.

In the last year the Italian Civil Protection department evolved into a "federal" type of

organisation in which many "Competence Centres", operating in the different Italian regions, and with specific competence of their own territories, interact with scientific communities (Universities, Research Institutes etc.) to analyse and modelling the natural risks (flooding, seismic etc) present on the specific territory.

Competence Centres support the emergency prevention and management of Central Civil Protection authority; they are expert about the specific configuration of territory and able to detect as early as possible dangerous effects generated by the incoming natural events. If alerted earlier, the Central Civil Protection has the opportunity to activate on time the needed resources and the necessary evacuation plans, reducing the number of victims.

Competence Centres are "autonomous" entities, with specific knowledge and technical skill. They produce methods and tools applicable not only to their territory but also to other similar territories, also in foreign countries. In such a way Competence Centres can sell advanced technology for emergency prevention and management; and operate on the market, they work with autonomy but at same time support the central emergency management activity.

It seem that this model was in the last years very useful for natural disaster prevention and mitigation. Civil Protection doesn't however know if the same model may be adequate for national Critical Infrastructure protection too. In fact not all the networks and the infrastructures furnish only "local services". Roadway traffic problems and congestion may happen locally and for local cause, but lack of services in gas, oil on electrical power distribution may be caused by problems that arise very far from the specific geographical point.

The question is: if for natural emergency management a "federal" organizational model seem appropriate, what is the organisational model most effective for Critical Infrastructure protection?

Answer from Chris Flaherty, May 7

In my experience (the Australian research group RNSA "Research Network for a Secure Australia") I would suggest that the "federal" model is best suited to CIP (Critical Infrastructure Protection). However, you need to build a collaborative network of researchers in various academic / professional disciplines in order to deal with the complex interrelated questions that CIP needs to resolve. This is very important, in the area of dependency and consequence analysis.

What needs to be done, is the development of wide-reaching concept documents where various experts "add" how their research / knowledge (engineering, CT, law, social-economic) helps identify the problems / results of a system (i.e. power) failing. As well, there needs to be a round table to identify the current CIP problems / threats and how these can be solved through multi-disciplinary analysis. These documents then form the basis for collaborative researcher teams that work through virtual links, and this helps each of the member nodes of the federal system to link and pool ideas / solutions / problems.

As well, there needs to be political drivers. In Australia, there is a high level advisory board - with representation from Australia National Security agencies, which advise and receive information on CIP from the network. The network as well, has researchers from government (police / defence), industry and academia.

Answer from Giuliano Basso, May 10

I come back to the question that in Energy Infrastructures, the failure is local but the consequences are spread along the Energy transportation chain.

The present level of integration, which is going to grow in the near future, is a very good means to mitigate the consequences of an emergency, but it is also a cause of the "propagation effect" on all over the network, with different effects depending on the severity of the failure.

In the Energy Companies, the presence of a unique "dispatching centre" enables the synthetic overview of the status of the energy transportation and allows a quick and accurate assessment of the consequences of the "contingency plans" that could be adopted in order to choose the best one.

Obviously the implementation of the chosen "contingency plan" requires a set of simultaneous actions that could be implemented only by "local agencies" capable to quickly interact with the population in their own territory. This is the "federal" component of the organisation.

To improve the organisation in this regard, the key questions in Italy are:

- a) Are the Energy infrastructures regulated by something similar to the "great risks regulation" [as the SEVESO directive]?
- b) In terms of "dependability" of "energy supply", what are the responsibilities of the Civil Protection in Italy? Could the Civil Protection decide about "interruptible" supplies? Or have the "energy companies" the full [legal] "public service obligation"? [It seems to me that in the today competitive Market this "obligation" is under a careful consideration and not all the stakeholders endorse this "sic et simpliciter"]
- c) What are the communication links between the Energy Companies and the Civil Protection Agency in case of emergency distinguishing the case of "interruption of supply" from the "local emergencies" which endanger the security and health of local population?

- d) What triggers the actions of the Civil Protection in case of Emergency [in fact there is a committee to manage the “big risks”, which Civil Protection is part of]

Answer from Chris Flaherty, May 10

My view on the previous CIP questions (from Giuliano Basso) are:

- a) From an Australia CIP perspective, the type of approach we are working on, in regard to managing national emergency (where major power grids or such like are involved), requires at a policy level a "whole of government" approach where relevant governments agencies are able to respond to events in a coordinated way.

Additionally there needs to be developed within industry a coordinated approach where corporations have interlinked their risk and response planning, in the context of a "whole of government" approach. As well, there needs to be coordinated approach to resilience planning.

- b) This again requires a mix of coordination / regulation. At some point, theoretically there has to be national requirement that ensures certainty of supply. In past cases where there have been utilities failure (Europe, US, Australia - Victoria and South Australia, NZ) this has not been the case.

- c) In the Australia context (through our Attorney General's Department - which is a Commonwealth Government Agency) there has been a lot work done on the development of specific supply chain relationships - power, food etc, seeking to develop a pool of information as to risks, gaps and opportunities where resilience and redundancy can be developed if a particular set of supply-chain relationship fail or are inhibited.

Ideally, these issues are dealt with by sector based advisory groups who are able to offer potential coordination if

there was a disruption of the supply chain in the particular area they are responsible for. This conversation is then supposed to fit into an overall civil protection response plan.

Answer from Giuliano Basso, May 11

My question now is about the support of the groups addressed by you and defined as “sector based advisory groups who are able to offer potential coordination if there was a disruption of the supply chain in the particular area they are responsible for”

In your experience / opinion, do they need a set of enabling-updated tools? Such as a Data Base timely updated with the information / data of the necessary quality and accuracy and a model to evaluate the consequences of the guidelines they are going to give in case of a Critical event and consequent Emergency situation.

Is there any need for “agents” to trigger the activation of the interoperability between a subset of those groups when the “domino effect” is playing a relevant role? Is this triggering process taken by any of the groups, or is it planned in the “interoperable contingency plans” or, finally, there is a “coordination agent” who is accountable for this?

Answer from Chris Flaherty, May 11

The way I would look at this is that we are really talking about "Governance and Regulation". On one level there are Governance / Business rules that public infrastructure providers maintain to (a) ensure business continuity; and (b) set up a common agreed methodology with other competitors that ensure that everyone's Governance rules work in the same way - with the same results; in order to ensure limited interruption to a supply chain. Linked to this are Electronic Business Strategies - such as enabling-updated tools, which operate with the same Governance Rules in mind.

The next level of Governance (or Public Regulation) - and this is where a Coordination Agent can be identified - is where industry suppliers cooperatively work with Government to develop a response system. And yes there has to be Agents who do trigger the response plan. I think if you look at where there has been a failure to respond to crisis events - the basic problem has been a lack of coordination. And in terms of developing CIP - this has to be done.

Conclusions

The results of the conversation seem to indicate that a certain mixture of federalism and centralised organisation is needed.

In the organisation a federal part is necessary mainly to interact with the

diversity of the local territories, constraints and populations.

A more effective co-ordination could be realized adding some central regulatory authority. Following the indications of Chris Flaherty it is also necessary to secure the support of a multi-disciplinary team of experts working through virtual links.

The question remains open as to how to configure a communication link, between the central regulator and the infrastructures stakeholders, acceptable in term of security and dependability, for all the involved actors.

Further indications and comments about this theme are encouraged and those wishing to do so or join the CIP working group are requested to email Claudio Balducelli (claudio.balducelli@casaccia.enea.it)



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Delegate benefits

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Day 1 Topics

A growing risk - "The Data Tsunami"/The new British Standard for BCM/The new draft standard for IT Service Continuity/ Business & IT alignment/Business compliance risks/Case Study: Buncefield disaster/Human health (pandemics) and welfare issues

Day 2 Topics

Case Study: Implementing an enterprise BCM programme/ Optimising responses to emergencies/No power, No business! Understanding the risks/Are the causes of impacts to critical activities what we actually plan for?

The Conference Debate

"Where should BCM strategies focus resilience?"

Question Time

Interactive discussion between the panel and delegates "What are the BCM challenges for 2007?"

Newcomers' Breakout Sessions

Sessions to assist newcomers to BCM develop their understanding of the 10 standards of the Business Continuity Institute will be held.

Social Event

Your chance to meet delegates and speakers during the evening of Day 1!

Special announcement

A special announcement of great interest to BCM will be made at the event!

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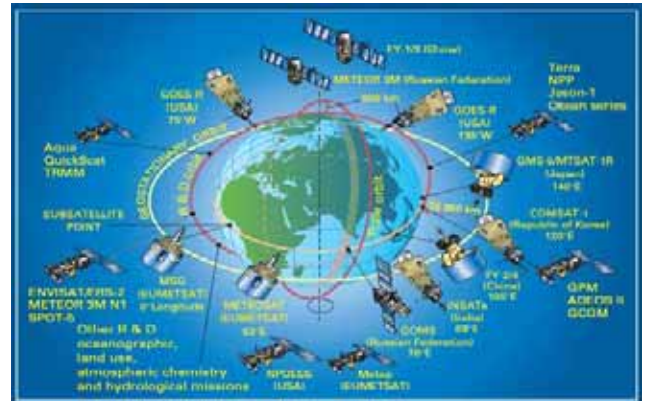
Multi hazard warning systems and crisis management for disasters

By Ivan Obrusnik, Czech Hydrometeorological Institute

The World Conference on Disaster Reduction (WCDR) in 2005 yielded general agreement that facing various types of hazards efficiently needs a multi-hazard approach and, at the same time, a good cooperation between early warning and other parts of the whole crisis management and rescue systems. Many weather-related and man-made disasters in the last decade have shown an urgent need for such an approach. It was a reason, why the World Meteorological Organization (WMO) has started a new disaster reduction and mitigation program (DPM), proposed by the 14th Congress in 2003, to enhance capability of National Meteorological and Hydrological Services (NMHSs) in fulfilling their main role – protection of lives and property by an efficient and timely Early Warning (EW).

WMO and members NMHSs rely on a complex global observing systems ranging from satellites, weather radars to buoys producing a variety of data. More than 10000 manned and automatic surface weather stations, 1000 upper-air stations, some 7000 ships, 100 moored and over 1000 drifting buoys & hundreds of weather radars measure every day key parameters of the atmosphere, land and ocean surface. In addition, over 3000 commercial aircraft provide more than 150000 observations daily. The satellite network employed includes five operational near-polar-orbiting satellites, six operational geostationary environmental observation satellites and also several research and development satellites, as it is shown in the figure.

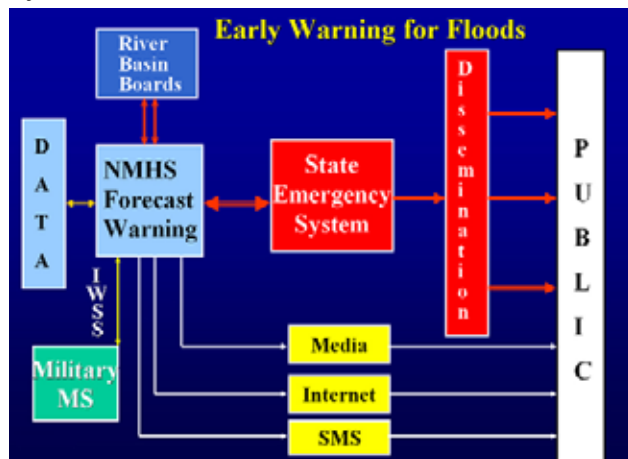
The huge amount of data is then collected and disseminated by the WMO's Global Telecommunication System (GTS). GTS can also be used for international dissemination of early warnings for various kinds of disasters like floods, tropical cyclones, tornadoes, storms and storm surges, El Niño events, heat waves,



droughts, forest fires, etc, but also for tsunami. The Pacific Tsunami Early Warning System coordinated by the International Coordination Group for the Tsunami Warning System in the Pacific of the Inter governmental Oceanographic Commission (UNESCO) is an example of a highly efficient use of GTS for early warning dissemination. The Pacific Tsunami Warning Center, operated by NMHSs from USA and Japan, will use the GTS for issuing tsunami early warnings to the Indian Ocean Rim countries, while the Indian Ocean Tsunami Early Warning & Mitigation System is being developed. The GTS will serve as a critical telecommunication mechanism for the exchange of tsunami related data and warnings in the longer term. WMO is taking action to ensure that the GTS will be fully operational for tsunami and seismic applications in the Indian Ocean and other areas at risk. It is building on the telecommunication & staffing infrastructure, which is already in place for tropical cyclone and storm-surge warnings.

Natural hazards are mostly weather-related and can efficiently utilize infrastructures of NMHSs, WMO and other agencies cooperating with crisis management on national, regional and international levels. A national system for flood warning and forecast in the Czech Republic connected to the crisis management system in the country can serve as an example of such an

approach. The figure below shows the integration of a Forecasting and Warning Service of NMHS in a state emergency system



The Czech NMHS (Czech Hydrometeorological Institute) prepares forecasts and warnings based on data from observation networks and models and also on information from river basin boards (manipulation with dams etc.). These warnings and forecasts are transmitted into the state emergency system and then disseminated to regional and community authorities and finally to the public. At the same time all necessary warnings and information are delivered to the public via media (TV, radio, newspapers), special flood web pages on the Internet and also by generation of SMS messages through mobile telephone networks (it is organized by such a way that SMS are delivered to responsible people in the areas hit by a concrete flood event only).

Besides floods the warnings for other natural disasters as well as some man-made ones could also be handled by a similar way & such a multi-hazard approach proved to be highly efficient. In this case, the integrated warning service system routinely run by CHMI together with military weather service delivers such multi-hazard early warnings as shown in the figure on the right. It means that the system generates directly early warnings for meteorological, hydrological and some of environmental hazards like smog events. Moreover, in cooperation with other specialized bodies the system can successfully be used for

warnings in the case of some man-made hazards within the state emergency system.

Involvement of CHMI in various disasters during the last decade and its very close cooperation with the crisis management authorities in the country has lead step by step to an acknowledgement of this service as the official authority (single voice) for issuing meteorological, hydrological and air pollution warnings and information. At the same time, CHMI has become a standard part of the state emergency system participating in many exercises. Finally, such recognition has lead to a better financial support of CHMI by the government.



In conclusion meteorology and hydrology play an important role in decreasing losses of human life, destruction of social and economic infrastructure & degradation of already fragile ecosystems caused by various kinds of natural and man-made disasters. WMO and the NMHS contribute significantly, at international and national levels, in the identification, assessment and monitoring of disaster risks and the provision of early warnings.

However, for reaching the highest efficiency WMO and NMHSs urgently need to cooperate with respective national emergency systems and authorities, scientific communities, intergovernmental and non-governmental organizations, the private sector, the media and the public, and through this helping to ensure that they have sufficient level and the capacity to contribute to the mitigation of disasters.

TIEMS and IAEM Collaboration Agreement

Following successful negotiations during and following the TIEMS 2006 annual conference in Korea, with Marg Verbeek, President of the International Association of Emergency Managers, we are pleased to announce we have now signed a collaboration agreement with them.

The aim of this agreement (as illustrated) is to build a stronger relationship between both TIEMS and IAEM as organisations, which complement, not compete against each other. The principals of this agreement are to:

- Establish an ongoing dialogue between TIEMS and IAEM, with the aim of exchange of knowledge.
- Collaborate and co-operate on activities of mutual interest.
- Share knowledge on and participate in each other's training programmes.

We hope this agreement will be to the benefit of both TIEMS and IAEM members, in expanding the network of knowledge and opportunities available, and will keep you informed of any developments.

In way of commitment to the agreement Marg Verbeek (President of IAEM) will again be attending the TIEMS annual conference, in Croatia in 2007 and hope to further discussion at this time.

LETTER OF INTENT



Marg Verbeek, CEM, MCIP
President of IAEM (International Association of Emergency Managers)

and

K. Harald Drager
President of TIEMS (The International Emergency Management Society)

Have the intention to:

Establish and participate in an ongoing dialogue between their organizations that can lead to the exchange of knowledge between IAEM and TIEMS.

IAEM and TIEMS will collaborate on items and activities of mutual interest, and provide open communication throughout that process.

IAEM and TIEMS will explore opportunities in the emergency management field for members of both organizations, and communicate these opportunities to each other. Sharing of knowledge and participation in each others training programs can then be achieved.

Marg Verbeek

23rd August 2006

K. Harald Drager

23rd August 2006

TIEMS Website Update

As many of you may have noticed the society has recently been experiencing problems with its website, and we apologies to you all for any inconvenience.

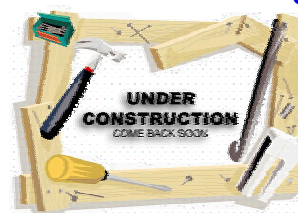
The problem was the result of the web-hosting company where the TIEMS website was based closing down and terminating our webserver rental contract without any notice. This subsequently led to complications with the domain (tiems.org) transfer, which was in breach of domain transfer regulations.

We have now resolved this issue, and we are in the process of loading a new and

improved TIEMS website onto a new server and is hoped this will be launched before the new year – so please stay tuned!

We are also taking all necessary steps with backup servers to ensure this problem does not re-occur.

www.tiems.org



Forthcoming Events / Conferences

TIEMS is dedicated to highlighting to its members events and conferences, which we feel may benefit your professional development in forthcoming months.

TIEMS members and friends are encouraged to submit information about forthcoming events that may be of interest for the TIEMS community to info@tiems.org and we will endeavour to publish it in the most appropriate issues.

January 2007

Business Continuity Management Challenges for 2007

29 – 30th January 2007
Berkshire, UK

An opportunity to hear first hand from International as well as Australian security aspects on issues including terrorism and national security, and an opportunity to co-operate and learn across the security continuum.

www.automataservices.com/conference.htm

February 2007

National Conference on Disaster Planning 2007

8 – 9th February 2007
New Orleans, Louisiana

Hurricanes Katrina and Rita revealed how vulnerable car-less residents are in emergency situations. Evacuation plans in most major cities across America fail to adequately take into account the needs of the elderly, disabled, and transit dependent populations. The goal of this conference is to bring together government officials, professionals, and experts to discuss how we can better prepare to help those who most need it.

For more information:

www.carlessevacuation.org/
jrenne@uno.edu

NEMA Mid Year Conference

10 – 15th February 2007
Alexandria Virginia

This Conference provides an opportunity for people to come together to discuss the problems that face the emergency management community, share solutions and network with peers.

www.nemaweb.org/?1740

5th National Security Conference – Australia 2007

26 – 27th February 2007
Sydney, Australia

An opportunity to hear first hand from International as well as Australian security aspects on issues including terrorism and national security, and an opportunity to co-operate and learn across the security continuum.

www.nationalsecurityaus.com

March 2007

Business Continuity Conference

26 – 29th March 2007
London, UK

The UK's largest Business Continuity and Risk Management event featuring and exhibition attracting over 3000 visitors, forty free seminars and a high level conference for over 400 delegates.

www.businesscontinuityexpo.co.uk
emma.baranski@reedexpo.co.uk

May 2007

15th World Conference in Disasters and Emergency Management

13 – 16th May 2007

Amsterdam, Netherlands

This Conference organised by the World Association for Disaster and Emergency Medicine, aims to catalyse thought processes and to come up with very clear products to better prepare us all for the next disaster or crisis. The central themes will be preparedness, knowledge, training, and networks. Attendees will include those from around the world who have interest in the most urgent medical and humanitarian problems of the 21st century.

www.wcdem2007.org/paog@vumc.nl

2007 IEEE Conference on Technologies for Homeland Security - “Enhancing Critical Infrastructure Dependability”

16 – 17th May 2007

Holiday Inn Select BOSTON-WOBURN

This conference, and technical expo provides an ideal opportunity for developers and implementers of technologies, consultants, entrepreneurs and business funding sources interested in the security and critical infrastructure dependability marketplace to meet with governmental leaders and owners and operators of major private sector infrastructure.

www.ieeehomelandsecurity2007.org/homeland2007_cfp.htm
information@ieeehomelandsecurity2007.org

June 2007

TIEMS 14th Annual Conference

5 – 8th June 2007

Trogir, Croatia

The theme for the 2007 conference is “Disaster Recovery and Relief – Current and Future Approaches” and will bring experts

from across the world together to discuss the many challenges regarding the development of viable and effective approaches, to help mitigate and respond to the impacts of a variety of emergencies.

www.tiems.org

July 2007

Australasian Natural Hazards Management Conference 2007 - “From Warnings to Effective Response and Recovery”

3 – 4th July 2007

Brisbane, Australia

The conference will provide a forum to discuss the integration of hazard information into effective risk management, including: applying hazard information to best practice planning; Developing effective warning systems; Improved response and recovery from events; Creating resilient communities through integrating science into practice.

www.hazards-education.org/ahm07/ahm07@hazards-education.org

17th World Conference on Disaster Management - Emergency Management and Business Continuity Working Together

8 – 11th July 2007

Toronto, Canada

The goal of the 17th WCDM is to offer a program that challenges delegates by examining traditional concepts and methods, and provides; new ideas and approaches to problem solving; leading edge and topical presentations; and opportunities to connect with key individuals and organizations across the disaster management spectrum.

www.wcdm.org/agordon@ccep.ca