

Preface

“The International Emergency Management Society” (TIEMS) was founded in 1996 as a re-organisation of its pre-decessor “The International Emergency Management and Engineering Society” (TIEMES), which, in turn, was a spin off by a special interest group - founded in the early eighties - of a larger computer society.

TIEMS is a non-profit organisation that aims to bring together users, planners, researchers, managers, technicians, response personnel, and other interested emergency management parties to learn, teach, and exchange experience, knowledge, and ideas about how information management tools can be used to avoid, mitigate, and recover from disasters and other emergencies; and consequently, how the use of information management methods and technologies may improve efficiency in emergency management.

TIEMS'97 is the fourths conference in the sequence of conferences held after the society became an independent organisation. Each of the conferences have been devoted to the themes:

- Bridging the Gap Between Theory and Practice,
- Globalization of Emergency Management,
- International Issues Concerning Research and Application in Emergency Management.

The conferences emphasise the major goal of TIEMS: to bring together people with diverse backgrounds but who share a dedication to improve emergency management. In the discussions, formal and informal, at the conferences, nuclear scientists listen to psychologists, sociologists share ideas with engineers, and practitioners discuss emergency management issues with scientists.

The venues of the conferences have changed by turns between North America and Europe, and for the first three conferences the list has been as follows:

April 18-21, 1994: Hollywood Beach, Florida,
May 9-12, 1995: Nice, France,
May 28-31, 1996: Montreal, Canada.

Following this scheme the present conference has been placed in Copenhagen, and Washington has been chosen as the location hosting the conference in 1998.

Participants from six of the seven continents have joined the conferences.

In recent years we have experienced a tremendous advancement in information and communication technologies and, consequently, increased the possibilities in coping with emergency situations. At the same time the management of emergency situations has typically become more complex due to the increased complexity of industrial plants which are often the sources of manmade catastrophes.

Emergency situations will never be avoided. Even though the use of thorough risk analysis and improved technology have increased the safety of industrial plants, unforeseen sequences of events may anyway lead to disasters; especially in cases where hazardous plants have been placed in developing countries, or where the persons responsible for running the plants may not have received adequate technical training for the optimal treatment of the plants in critical situations.

Likewise, even though the safety of fixed installations may be increasingly improved, transportation of toxic, radioactive, and other hazardous material, is still an extremely risky transaction.

Furthermore, no matter how skilful we may be in coping with technological disasters, we shall never master natural catastrophes which may either strike directly, or in some cases add to their consequences due to the vulnerability of the society by damaging toxic or in other ways hazardous installations.

In addition, people do not reduce the risk of catastrophic situations by staying away from risky areas if this compete with privileges they want to obtain. Thus, the climate in California is tempting to a lot of people even though they know they are living in an area in danger of earthquakes. Likewise, due to the fertility of the soil around vulcanos, after each volcanic eruption people return and rebuild their completely ruined villages; and the same goes for areas often exposed to flooding.

In fact, it is a common human rule to push one's luck to the limit, based on the philosophy: "it will never strike me, only my next-door neighbour". E.g., nobody will enjoy the safety of running their car at 40 km per hour, which was a decent speed by cars two generations ago. As the capability and safety of cars are increased, people increase their speed until they feel the same margin of personal safety, unless legislative restrictions put a speed limit to their behaviour. This goes for all technological development: as soon safety is increased the utilisation of the equipment will be increased correspondingly.

A new problem related to emergency management disclosed recently is the legal responsibility of people coping with emergency management. Previously, it has been normal practice to give immunity to the fire service and other emergency services, who frequently put their own lives at risk to help others. Decisions have to be made swiftly in very hazardous circumstances, and therefore mistakes may be made from time to time. If this is not accepted, we get the risk of defensive emergency management, a diversion of costly resources away from emergency management towards fighting legal battles concerning responsibility of actions taken.

But, recently, a court case in England involved a Fire Chief who was sued for negligence due to his decision to switch off sprinklers during a fire fighting situation, even though "it was his honest belief that, firstly, they were hampering the efforts of the fire-fighters and, secondly, it was not assisting the fighting of the fire". The claim against the County Council was appealed, but the Court of Appeal disallowed the appeal, and the local authority had to pay compensation for the "fire brigade blunder". This kind of episodes puts new dimensions to the act of emergency management.

A meeting such as this conference is of vital importance in order to improve emergency management capabilities on a global scale. We have decided to select a number of papers corresponding to only one track of presentations in order for the participants to share effectively knowledge and experiences.

The organisers thank to the authors coming from many countries around the world to present their work in this conference. Besides the aspects normally covered in the TIEMS conferences, such as decision support, modelling, handling of man-made or natural disasters, training, etc., this conference has been enhanced by including aspects involving medical care and economic constraints.

Several individuals and organisations deserve special recognition for their contribution to the success of this conference: The Ministry of the Interior, Emergency Management Agency, and the Municipality of Copenhagen for support with the conference excursion; Per Kulling and Leif Søndergaard for being key-note speakers; Marianna Sanderson and Henning Boje Andersen for linguistic support and Marianna Sanderson also for extensive editorial assistance; Steen Weber and Erling Johannsen for technical assistance; Vivi Hansen for her inestimable secretarial support; and the Falck Rescue Corporation and Risø for their sponsorship.

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