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"Emergency Management in a Changing World"

Good afternoon, ladies and gentlemen, and welcome to Oslo, to this conference on Emergency Management.

I have been asked to address you briefly on the subject of "Emergency Management in a Changing World". Being brief in this matter, rather than expansive, is no mean undertaking; the subject has become vast, beyond our wildest expectations of a few years ago.

A Changing World

Traditionally, the Civil Emergency Planning community was geared towards the relatively static threat of war that existed in the Cold War. This was our only scenario. We planned for the continuation of government and the economy and to protect the population, in a conventional, largescale war. Other possible scenarios either did not exist or were pushed to the rear. There was, for instance, very little contact between the Civil Emergency Planning community and those who planned and ran the Emergency Services in peacetime. The treats, the risks, and the challenges were fairly obvious, and analyses of these challenges were readily available to government, supplied by the intelligence services. The responses to these challenges were reduced to detailed planning and even to doctrine.

This has changed beyond recognition. The rigid dicotomy of either peace on the one hand, or war on the other, has gone. It has been replaced by a continuum that has a theoretical state of war at one end and a theoretical state of complete peace at the other. Observable reality, however, is most often found in the fuzzy grey area in between. From the point of view of International Law, however, this grey area is not defined as war.

Why did this happen? Didn't the end of the Cold War remove the worries of Civil Emergency Planning? Not quite.

- Firstly, when the end of the Cold War removed the lid from the kettle, all sorts of other conflicts bubbled, a bit unexpectedly, to the surface, not in the least the continuing conflicts in the Balkans.
- Secondly, the evident superiority of the Western World in conventional warfare discourages direct armed confrontations with it. Conventional warfare has long been in the process of being replaced by assymetrical means, such as terrorism or guerilla warfare, by those who cannot win a conventional war. Additionally, the latest years have seen the emergence of socalled transnational groupings, that is, potentially antagonistic groupings that are organised across borders, but cannot be attributed to a particular nation or state. These are trends that potentially bring violent conflict into the everyday lives of peaceful citizens of peaceful countries.
- Thirdly, emerging technologies have created new arenas for conflict. The rapidly increasing dependence on Information Technologies in our Critical Infrastructures have made vital information and controls potentially accessible through the World Wide Web. Disgruntled individuals, terroristic or criminal groups, and even intelligence services could cause serious damage to modern societies by hacking into their vital systems. The ability to produce Weapons of Mass Destruction is spreading.
- Fourthly, the vagaries of an apparently increasingly turbulent Nature, with increased incidences of storms, avalanches, et cetera, have created an increase in serious situations, along with the apparent increase in technological accidents, for instance in the transport sectors, caused by complexity combined with incompetence. Both types of accident are aggravated by the accelerating tendency towards the concentration of populations in large conurbations, sometimes unsuitably sited, sometimes unnecessarily located too close to sources of hazard.

These developments have had profound effects on the conduct of Civil Emergency Planning. Civil Emergency Planning has had to renew itself, both in terms of the scenarios it is aimed at, and in terms of methods.

A primary and very significant effect has been a significant raprochement between, at the very least, the traditional worlds of <u>Civil Emergency Planning</u> and its traditional partner, the <u>Defence Forces</u>, the world of the <u>Emergency Services</u>, and the world of <u>Health and Safety Management</u>. This raprochement is even beginning to include the traditional worlds of <u>Security and Intelligence</u>. There is a growing realisation that both safety and security concerns at both macro and micro levels are somehow interconnected, and should, when it is opportune, be viewed holistically.

On a negative note, this will inevitably create some potential for conflict and bureaucratic infighting. Different bureaucratic fieldoms are discovering that they are beginning to encroach upon each other.

On a positive note, this is creating a huge arena for the exchange of and cross-fertilisation of information, views and methods. I am primarily able to speak about the effects this has had on the field of Civil Emergency Planning. I will concentrate on a few of the methods now in use and a few of the challenges now facing us.

Civil Defence in Peace-Time Society

Civil Defence was originally conceived to protect the population against the massive deprivations of war. This was a challenge that was beyond the capacities of the normal Emergency Services to cope with, and as such, justified the existance of a separate Civil Defence Organisation. As the threat of major war has retreated, the role of Civil Defence Organisation has had to be rethought. In many countries, the Civil Defence Organisation and Forces have been abolished and integrated in the Emergency Services, particularly the Fire Brigades. So far, a different approach has been chosen in Norway. The Civil Defence Organisation is retained as a back-up force to the Emergency Services, and has been reorganised to cope with this task. There are now more than one hundred groups available for rapid peacetime use, also serving as a cadre for more largescale mobilisation should the need arise.

Quality Management

A significant problem of Civil Emergency Planning in the past, was the fact that many of its activities were ritual and repetitive. The actual effects of various measures were unknown, but strongly suspected to be either inadequate or even inappropriate and irrelevent. To allieviate this, at least nationally, the idea of Quality Management has been borrowed from the world of Health and Safety Management. This has, with varying success, been applied at the local and regional levels, and is about to be applied at the central level. The point of this approach is to force Civil Emergency Planning away from ritual and into goal-orientated application of method.

Risk and Vulnerability Analysis and its impact on Planning

Traditional methods in Civil Emergency Planning have been Emergency Planning and Emergency Management Exercises. These activies continue, although in modernised forms. Emergency Management Exercises, for instance, have been developed to make the management of relations with the media and the public an important aspect.

A major new initiative during the last decade, however, has been the introduction of Risk and Vulnerability Analysis in Civil Emergency Planning, particularly at local government level. This kind of method is also practiced in the field of Health and Safety Management. The emphasis has been on simplicity in the application of the method, avoiding formal (mathematical) risk analysis, in favour of simple assessments based on experience and local knowledge. The advantage of this approach is that it is easily understood by non-technical municipal staff and decisionmakers. The use of the method, and the fact that it kept simple, has been a major factor in placing the concerns of Civil Emergency Planning on the political agenda.

It is a major concern that the results found in Risk and Vulnerability Analysis are translated into input to the various planning processes of society. It is thus hoped and intended that Emergency Planning be integrated as a normal activity in all planning, and that this planning is based on knowledge of actual risk rather that doctrine and rite.

Critical Infrastructures

In recent years, many nations have become aware of the challenges that uncritical use of Information Technologies may pose for our societies. The task of facing up to the y2k challenge was part of that awareness. It was, however, also realised that the challenge was more deeply rooted, and above all, of a permanent nature. Many national studies, among them the milestone American study, the Report of the President's Commission on Critical Infrastructure Protection, have shown the vulnerability of modern societies to intentional attack through the World Wide Web. Such attacks have the potential to paralyse society in a way otherwise only known in war, by for instance shutting down telecommunications, electric power supply, and other Critical Infrastructures. As a means of waging war, this method is cheap, it does not require a massive organisation, it has global reach, rendering any notions of protection by geographic distance or geographic obstacles obselete, and it may be impossible to ever identify the attacker if the attacker is sufficiently proficient. This challenge is now a major concern to all Civil Emergency Planning, and is now forcing reorganisations in this field in many countries. It is also creating an urgent new requirement for international cooperation. This coincides with internationalisation and even globalisation of Critical Infrastructures through deregulation and other mechanisms. The nation state is now faced with a serious dilemma: while the capability to create large-scale damage is devolving to the level of the individual, the power to fight back is slipping away, upwards and outwards to international organisations.

Nature and Climate

In recent years, the number of weather-related crises appear to have risen sharply. Although the memory of Man is notoriously short concerning the weather, and the debate on the causes is by no means closed, it appears to be indisputable that the climate is changing. In a very longterm perspective this is of course not unusual. This country has been covered by ice for most of the last million years, and at least four times. But in the time perspective relevent to the planning of human activity, the relatively modest recent changes are nevertheless significant. There is "more weather"; more storms, more avalanches, more flooding. In many cases the siting of human activity is significant to the impact of this development. In a relatively brief period with an uneventful climate, we have become used to placing our cities and our infrastructures in places that where more convenient than they were safe, such as on flood-plains. Although we can prevent new constructions on such locations, we are generally stuck with what we have done in the past. Our past mistakes are also exarcerbated when more and more people congregate into the places where they were made, for instance into many of the Worlds major cities, now overburdened beyond capacity. People die world-wide because of this, although a country such as Norway is generally spared. The same problems do however, show up here too, although on a very modest scale, making it easier to mitigate them by careful planning.

Technological Proliferation

The ability to produce and field nuclear wapons, long an oligopoly of a very limited number of nations, is now spreading. The traditional nuclear powers had developed political and practical mechanisms that prevented them from provoking each other into nuclear war. Although the tensions of the Cold War were very real, the nuclear power studiously avoided situations of declared, open warfare between themselves. Indeed, these countries had rarely, if ever, been at war with each other during more than a full century before the nuclear age. Nuclear technologies is now spreading to nations that have been at war with each other frequently in the recent past. Some of these countries even have a limited ability to wage conventional war, a factor that might significantly reduce the nuclear threshold. This is a potentially serious threat to everybody. If this threat gets out of hand, a challenge to Civil Emergency Planning everywhere may very well be that measures that were thought to be obselete, must be revitalised.

Chemical and biological weapons may now be produced in even relatively modest chemical or pharmaceutical industries in almost any nation in the world. Some nations have had no compunctions about using such weapons in war. In some cases, more or less home-made chemical weapons, made by terrorists, have been observed. Some incidents of terrorism with these weapons have indeed occurred. A recent worry is the possibility of terroristic poisoning of food production. The ability to respond to the use of these weapons is very limited. **Medical Emergencies**

The potential threat of biological weapons aside, the risk of natural or accidental disease is much higher. The Great Plague is now a very distant memory. That is no guarantee that it won't happen again. There is no need to evoke exotic tropical diseases. Influenza is a pandemic disease that is kept under close watch world-wide, for a good reason. The virus mutates naturally and very easily. The Spanish 'Flu of the early 20th century may just have been a warning shot for what potentially might emerge as a very lethal pandemic.

The emerging genetic technologies hold great promise within the field of medicine. We may find easy cures for diseases that now are thought incurable. During the search for such cures, however, accidents may and do happen. In Australia, a recent attempt to produce a contraceptive vaccine by manipulating a virus, resulted in an artificial mutant strain of lethal small-pox. In the future, such accidents might worm themselves loose from the laboratories to be let loose on a relatively defenceless World.

Only very, very robust public health services might be hoped to be able to cope with either of these scenarios. These possible scenarios, along with the potential threat of biological terrorism, ought to prompt an urgent review of the capabilities of these services.

New Emphasis on Strategic Analysis and Research; the Widening Scope for International Cooperation

If there is one thing that all the new and emerging challenges to public safety and security is teaching us, it is that we need to expand our knowledge about them dramatically. Reality has become complex and confusing, and we need to structure it anew to get on top of it. In the past, Civil Emergency Planning was dominated by practitioners, dutifully implementing set tasks in a fixed sceanario. The atmosphere was sometimes not very conducive to intellectual thought. Civil Emergency Planning was something one did. One did not think deep thoughts about it. This is also changing dramatically. The education boom has produced practitioners that now have educations that make it natural for them to seek out scienticic research. They are themselves capable of participating in such research, of guiding research, and of conducting strategic analysis. Research on the widening concerns of Civil Emergency Planning is in itself ballooning. Conferences such as this one is proof of that.

Few countries are capable of facing the challenges mentioned on their own, and of developing the necessary catalogue of knowledge. We ourselves must, and do, participate in exchanges of methods and information with like-minded countries on both bilateral and Nordic bases. Indeed, we are seeing a need to expand our cooperation on relevant research into international fora such as the European Union and NATO, and even further afield. Tentative contacts are being noted. Conferences such as this one have become important tools in keeping abreast of the growing body of both research and research-based practice. Contacts are made, networks are being developed, duplications of effort are being reduced in numbers, probably leading to the body being more than the sum of its parts.

We sincerely hope and believe that this conference will add to our collective knowledge, becoming one part of a body that leads to better Civil Emergency Planning. With these words, I wish you all a good and fruitful conference and good luck in your future work.

Ladies and gentlemen, thank you very much for your attention.