7th International Symposium on Digital Earth
Perth, Australia
23 - 25 August 2011

WHAT'S NEW IN THE CRISIS MANAGEMENT OF THE CZECH REPUBLIC

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ABSTRACT

Information on new findings in the theory and practice of crisis management in the Czech Republic. Understanding the development of emerging scientific discipline – securitology. Security reality as an object of both securitology research and practice. A model demonstration of security reality. The description of a crisis management system in the country. The characteristics of the Integrated Rescue System and its activities in non-military threats. The share of digital information on crisis management in the CR. Changes in laws and a security strategy of the CR. Conclusions for the theory and practice of crisis management and protection of the population.

1. INTRODUCTION

The vast majority of states in the world in its constitutional law allege that their primary effort is the state care for the lives and health of the population, the property and the environment. The way how a citizen, an organization, a government office, a state and an international community is able to cope with unfavorable conditions of extraordinary events and crisis situations demonstrates its readiness and quality. Crisis management is a set of activities to protect population, property and the environment. It has its similarities in a number of countries, but also differences arising from geographic, political, economic, social, technical, technological, and cultural differences amongst compared countries.

The Czech Republic went through the stages that changed the development of crisis management and we have achieved the quality and reliable results in comparison with other countries. Perhaps also on this account the information about our experience could be applicable also in other conditions.

It is common that if there is the development of a practical field, there is also the development of theoretical knowledge in a particular area. This leads to the emergence of a scientific discipline. The target of this paper is also to introduce the basic approaches to the development of a scientific discipline.

2. SECURITY REALITY - SUBJECT OF RESEARCH AND PRACTICE

"If I had an hour available to cope with a problem which my life would depend on, I would spend 40 minutes on its study, 15 minutes on its analysis and 5 minutes on its solution."

[Albert Einstein]

Albert Einstein put into a quoted statement the tension because it is a matter of life and death. He suggested a potential possibility to manage the problem, but he also said "NOT" to panic because it would weaken a rational and correct approach. He formulated a logical scenario which he would choose as a guide to successful management of potential threats, with the only acceptable outcome – the survival. These are all practical questions for the new scientific discipline, which is related to the professions of rescuers, policemen, soldiers, diplomats, firefighters, medical service, safety technicians, staffs for security of information systems, and management in this area.

What is the subject of such a discipline? It is **the security reality** as that part of the objective reality, which is associated with the issue of security and insecurity (in terms of dangerousness, jeopardy). Security reality is not something fictional, but the actual naming of elements, conditions, processes, ideas and structures. It has its history and its future. Security reality is about the animated and inanimate nature, it is about man, society, criminality, politics, the functioning of computer systems; it is about the space and nuclei; it is about the treatment of humans or animals, about the ecology, industry and dangerous operations, about transportation, war, relationships between states and so we might continue to list more and more details.

Security reality includes the parts of the knowledge of various scientific disciplines, which are related to catching the balance between actors of security relations at a particular time and in a particular security environment. If the security reality is not in balance, this means that the forces and elements of dangerousness prevail over the safety. Mathematical formulation is expressed by equality, if the state is balanced and by inequality, if the right side prevails over the left one or vice versa.

Let´s simplify it by introducing the quantification into the expression of the intensity in a security reality. There will always be sets of various actors that are not abstract. The condition of their relations is the same as we may observe when the rivals pull the rope. They have measurable values from the view point of the intensity of good (security) and evil (dangerousness, jeopardy) which can be expressed as the evil energy (**EN^-**) and the good energy (**EN^+**). Measurability of security, its intensity, and indirectly the energy which represents the potential ability of operating in the objective reality has not been fully resolved and objectified yet. This energy in the material area can be expressed by Einstein relation: **$E = m.c^2$** . From the practical observation of non-balanced conditions of a security reality we know that it is also the mental power, which often included the will, belief, effort, determination, skill, guile and the ability to take risks, or to use new technologies. It managed to create such supplies of a massive energy, which at lower material energy led to the victory. This means that the resulting energy of (Good or Evil) **$EN = E + \Delta E$** led to unbalanced conditions and therefore to the victory of the Good and Evil. This means that the **$EN^- \neq EN^+$** and **EN^+** , **$EN^- > 0$.**

Each scientific discipline as a part of science makes sense only if it in a creative way explores the subject of its interest, develops the effort to find new findings or threads, or clarifies existing knowledge. Today the term "security research" is commonly used. What kind of a scientific discipline does it develop? Is the term “security science” right? A discussion of this issue has been held and it

gradually comes to the conclusion that security is just one part of an opposite phenomenon (a pair term) „security – insecurity“ (in terms of dangerousness, jeopardy). The use of the term “security – dangerousness or jeopardy” is not suitable. Therefore, one word expression was searched, which would not express just one part of a problem – security – as it has been up to now. Gradually, the professional public has attached to the expression derived from the Latin - securitology (Korzeniowski, [8], 2008). The word "securitology" was recommended after discussions at many European Association for Security[1] conferences. It evokes in many languages the idea that the scientific discipline is connected with the feeling of both security and dangerousness, jeopardy.

The subject of investigation of securitology are external manifestations and internal regularities of security and dangerousness in security reality. In the entire history of mankind security reality has had its special conditions on the level of both man, group, state and a technical element, system, fauna, the environment or a planetary environment. Security reality means an objective reality whose development we are able to:

- describe by abstract terms,
- record by symbolic notations,
- model.

Based on the evaluation of empirical experience, it is possible to describe the entity that consists of three distinguishable components of security reality. They express the subject of securitology and security research. They are symbolic notations of both the static state and a dynamic relationship between security and dangerousness. Model expression of security reality (Janošec [4], 2007) into three basic components of an entity represents the following basic decomposition:

$$^{s,t,r}\mathbf{BR} = (^{s,t,r}\mathbf{B},\ ^{s,t,r}\mathbf{BP},\ ^{s,t,r}\mathbf{BS}), \qquad (2.1)$$

where the indexes **s** - space, **t** - time, **r** – event (e.g. floods, industrial accidents, earthquakes, fire, etc.). **B** is a measurable value of a security situation (e.g. earthquakes determined by a Richter scale), **BP** is a model of a security policy, **BS** is a model of a security system.

For each space, time and event, there is a structured entity that represents a model of security reality. An important, empirically identified fact is that the components **(B, BP, BS)** can be in reality distinguished from each other and described as a result of self-observation and analyzing. Such security entities can be created in an infinite amount.

The model notation is a hierarchical arrangement of space from a smaller to a larger which means that the **information related at a given time to a larger space include information about its component parts.** The space is responding to the policy holder, who has also built an original system responding to its level (for example, world-widely it is the UNO and its security policy, the system includes the Security Council, UNO armed forces, and also settled ways enabling the enforcement of security). Selected problems of the dynamic development of security reality can be explored through **scenarios (S)** where in each model **M (ti)** it displays the state of basic elements at a time **ti.** The scenario contains the sequence of models, distinguished by the change of time (analogous to a celluloid film).

[1] European Association for Security (EAS) is an international nongovernmental scientific organization seated in Polish Krakow. It deals with education, publishing professional issues, besides others the journal “Securitology” that is also involved in international team cooperation in the field of security and dangerousness issues. Available at www: http://www.eas.info.pl.

$$\mathbf{S = (M(t1), M(t2), ..., M(ti), ..., M(tn)).} \quad (2.2)$$

The actors **A,** their relations **R** and the environment **E** are the basic elements of the model, which is a snapshot, a static display of the state.

$$\mathbf{M(ti) = (A(ti) \cap R(ti)) \cup E(ti).} \quad (2.3)$$

In the relation the individual symbols mean: **A (ti)** is a set of actors in the scenario at a time **ti**, **R (ti)** is the set of relations in the model scenario at a time **ti, E (ti)** is the set of the environment where the relations between the actors at a time **ti** are ongoing. ∩ is the intersection of sets and **U** is the unification of sets (mathematical operators).

The dynamics comes out of a comparison of two models at different times **(tx)** and **(ty).**The result can be for **(tx) ≠ (ty)** only **M(tx) = M(ty)** or **M(tx) ≠ M(ty).** Because the research is about the changes that were or are to be achieved. The comparison of the two models

$$\mathbf{M(tx) = (A(tx) \cap R(tx)) \cup E(tx)} \text{ a}$$

$$\mathbf{M(ty) = (A(ty) \cap R(ty)) \cup E(ty),} \quad (2.4)$$

can with basic elements **(A│R│E)**only result in one of the following five possible states (the symbol „│“ means the word or):

1. the emergence of new **(A │ R │ E),**
2. the continuation of **(A │ R │ E)** without changes
3. the continuation of **(A │ R │ E)** with internal changes
4. the continuation of **(A │ R │ E)** after transformation
5. the extinction of **(A │ R │ E).** (2.5)

The general concept of „security – dangerousness”, which means not narrowed only to e.g. the issue of military security, criminality, cyber security, is the contribution to understand „**general securitology”.** There should be such realities which are common for all conditions, where we use the terms „security – dangerousness” rightly. This means that they include the technical, technological, biological, psychological or other objects of human attention and interest.

What is the difference between the viewpoint of securitology to the security from politology, international relations, international policy, defense policy, the theory of defense, war economy, etc. It subsists in the perception of the object – security reality (**BR)** as a common security policy operation **(BP),** security system **(BS)** and measurable (or planned) intensity of security **(B)** in a current observed condition **(r),** at a certain time **(t)** and space **(s).** For a particular time **(ti)** there are two models, one is the security policy, the second is the security system:

$$^{s,t,r}\mathbf{M(ti)}_{BP} = (^{s,t,r}\mathbf{A(ti)}_{BP} \cap {}^{s,t,r}\mathbf{R(ti)}_{BP}) \cup {}^{s,t,r}\mathbf{E(ti)}_{BP}; \quad (2.6)$$

$$^{s,t,r}\mathbf{M(ti)}_{BS} = (^{s,t,r}\mathbf{A(ti)}_{BS} \cap {}^{s,t,r}\mathbf{R(ti)}_{BS}) \cup {}^{s,t,r}\mathbf{E(ti)}_{BS}. \quad (2.7)$$

These models have different actors, different relations and a little more different environment. Politology (P) deals with political actors, not only in terms of security policy, therefore with a model that could be written as

$$^{s,t,r}\mathbf{M(ti)}_{P} = (^{s,t,r}\mathbf{A(ti)}_{P} \cap {}^{s,t,r}\mathbf{R(ti)}_{P}) \cup {}^{s,t,r}\mathbf{E(ti)}_{P}, \quad (2.8)$$

where the actors and conditions are defined in a different way. Similarly it is possible to describe international relations where the actors are the states, international organizations. Also other disciplines could be documented in this way because they have different object of research than securitology. For example, in the security system will be typical that an actor may be a technique or technology (a spray tank truck, evacuation bag, siren).

TG Masaryk wrote (Masaryk, [7], 2001): *„Any classification of sciences is more or less artificial and unnatural. It lies in the nature of the substance and mainly in the fact that sciences are closely linked together so that it can be very difficult to imagine any mutual relationship to all of them, each to each other and to all of them."* Interdisciplinary tolerance was implied by the *words: „The science can serve the science either factually or methodically; other proportion than the usefulness is not in our interest. The science, whose substance is easier will serve the one whose objects are things of a more complicated character."*

The subject securitology – security reality – is currently the subject of both the research and the practice. Security reality includes all theoretical and practical denotations of crisis management, therefore, such a management which was applied before, during and after an emergency or crisis situation. Securitology allows to identify the whole process and in particular to address the specific situations using the main method – scenarios. For this purpose there are models, actors, relations, environment, space, time, threats and their risks.

3. SECURITY POLICY AND SECURITY SYSTEM OF THE CZECH REPUBLIC

Security Policy of the Czech Republic went through stages, which have changed the approach to crisis management. It got started by historically recent changes in the year 1989, associated in the CzechoSlovak Federal Republic with "velvet revolution". Then the period of creation of new conditions characterized by the change of the security system and its components (the army, police, firefighters, paramedics) followed. An accompanying effect of the development of conditions have been the changes to the legislative environment necessary for the practical transformation of social, economic, security and cultural identity of the society with a significant strengthening of democratic changes. This development was substantially influenced by international security reality which after the disintegration of the precedent bipolar division of the world started to look for a new security architecture. **The international interconnection of the Czech Republic into a larger security space of Europe, paradoxically started the transition from more general military threats to the solution of non-military security threats,** therefore to the strengthening of the internal capacity of the country to resolve issues without using weapons.

Since 1993, there has been an independent Czech Republic after the split of former Czechoslovakia. Perhaps on this account the information on the experience may be considered applicable for other countries.

If we use for the demonstration of security reality of the Czech Republic the former model relation (2.1): $^{s,t,r}\mathbf{BR} = (^{s,t,r}\mathbf{B}, ^{s,t,r}\mathbf{BP}, ^{s,t,r}\mathbf{BS})$ and relations (2.6) and (2.7), which decompose the security reality on the actors, their mutual relations and the environment, particularly in the security policy, and particularly in the security system, then we can see individual elements which are important for the assessment of the evolution from 1990 to 2010.

The index **"s"** which settles the space changed on the 1st of 1993 by splitting the Czech and Slovak Federal Republic to the Czech Republic and the Slovak Republic. Accordingly both **BP** and **BS** were divided.

The index **"t",** which sets the time also had significant milestones for the development of security policy and security system. The important years are the following:

1991 – The end of the Warsaw Pact and Czechoslovakia's membership in it.

1993 – The establishment of the independent Czech Republic.

1997 – Catastrophic floods and deficiencies in crisis management of the Czech Republic.

1998 – Constitutional Law on the Security of the Czech Republic.

1999 – The first Security Strategy of the Czech Republic,

– The Czech Republic joining the NATO

– The adoption of new legislation against military threats.

2000 – The adoption of new laws against non-military threats.

2001 – The initiation of the operation of a new security system in the Czech Republic,

– The second Security Strategy of the Czech Republic.

2003 – The third Security Strategy of the Czech Republic.

2004 – The Czech Republic's accession to the European Union.

2005 – Fully professional Army of the Czech Republic, the end of conscripts.

2011 – The fourth Security Strategy of the Czech Republic is ready, the White Book on defence.

The index **"r",** which sets the situation (threat), examined the most significant crisis management during the observed period, particularly in dealing with floods.

3.1 BP – Security Policy

The main results of political power in the security field are in every country and therefore also in the Czech Republic are:

- adopted laws and
- allocation of public finances.

Crisis management in order to ensure the protection of the population is the demonstration of the state power, it means that it has its projections into the executive, legislative and judicial power. The result of the security policy is also the condition that allows more extensive involvement of the non-governmental sector in the security field. As an example, we can use the development of private security services, which often perform tasks for the state-funded sections such as the army where they cover certain tasks of guarding or ensuring the security of information systems.

The main feature of the security policy is to respect **the principle of protecting the population.** Protecting the population is not just one of the technical and organizational measures of a country in ensuring security policy but it is exactly the basic target for which the whole system of crisis management and security system are conducted. This principle is for all security conditions: in peace, danger, emergency, national jeopardy and war.

In the Czech Republic the consensus was adopted. It says that the basic document of security policy is **security strategy.** It is a document adopted by the government and has the character of an supra-partial material. It's not a law but a statement of political leaders how they will approach to tackle security problems in society and what will be organized and provided for the basic type of threats. The strategy is perceived as a joint statement to address both military and non-military threats. Security policy model: $^{s,\,t,\,r}\mathbf{M\ (ti)}_{SP} = (^{s.t,\,r}\mathbf{A\ (ti)}_{SP} \cap^{s,\,t,\,r} \mathbf{R(ti)}_{\mathbf{SP}}) \cup^{s,\,t,\,r} \mathbf{E\ (ti)}_{SP}$ according to the relation (2.6) is the projection of the snapshot at a time respectively at a time interval. Of particular importance

are the actors and their interrelationships. The actors are politicians and the result shows the favorable conditions for the development of solutions to security problems.

3.2 BS – Security System

A security system that corresponds to the territory of a state is composed of a set of institutions (governmental, non-governmental, private, regional, international). These institutions cover their mission by a specific set of professions, technical and technological means which they need to carry out their functions. By combining professional skills the action groups are formed (even independently on the institutions) and it creates the state's ability to respond to the expected conditions of dangerousness and security (**r). The security system is the efficient element of the state.** It reflects its effective capabilities built on individuals, prepared to intervene to fight off the aggression, reduction or reversion of the threat, of the danger.

Activities in the security system are the activities in the sector of Foreign Affairs, Defense, Interior further in informatics, industry and trade, the environment, health, education, finance, transport, agriculture, culture, but also in the remaining ones. It is a space for university-educated professionals. In addition to jobs for immediate intervention (police officers, soldiers, firefighters, paramedics), there are also those that are primarily intended to invent other ways of the security system functioning. Their mission is to generate ideas, test them and ensure their transfer to a real security system. Into the list we can include the managerial, administrative, political, research, scientific and educational professions in the education system, in the private institutions which deal with guarding, the technical and technological support of the security and insecurity processes. There also the research and education belong. These professions do not have national but international assertion. **The security system of the Czech Republic** has been historically created both by continuation of earlier laws in force and consequently by the gradual adoption of new legal documents which:

- replaced the previous documents at current existence of basic national security forces, such as the army, police, firefighters, medical emergency workers, prison service and judicial service,
- established new rules for the actors, their relationships and the environment for shaping contemporary and future security reality.

$^{s,\,t,\,r}$**A (ti)**$_{SS}$ – **actors of the security system:**

- the president, parliament, government: 1/1993 Constitution of the Czech Republic;
- National Security Council: the Constitutional Act 110/1998 on the Security of the Czech Republic;
- ministries and other government offices: Act 240/2000 on Crisis Management;
- armed forces: Act 219/1999 on the Armed Forces of the Czech Republic; Act124/1992 on the Military Police, Act 289/2005 on Military Intelligence;
- police: Act 273/2008 on the Police of the Czech Republic;
- fire department: Act 238/2000 on the Fire Rescue Brigade of the Czech Republic;
- prison service and judicial service: Act 555/1992 on the Prison Service and Judicial Service of the Czech Republic;
- governor, mayor of the municipality: Act 240/2000 on Crisis Management;
- operation and information Centers: Act 239/2000 on Integrated Rescue System;
- Commander: Law 240/2000 on Crisis Management;
- Conscript: Act 218/1999 and 585/2004 on Conscription and its Assurance;
- Other laws.

$^{s, t, r}$ **R (ti) $_{BS}$ – the relationship between the actors of the security system:**

- Defense: Act 222/1999 on the Provision of Defense;
- Mutual coordination of forces: Act 239/2000 on Integrated Rescue System;
- Crisis management: Act 240/2000 on Crisis Management;
- Economic measures: Act 241/2000 on Economic Measures for Crisis Situations;
- Other laws related to specific conditions in which security events occur

$^{s, t, r}$**E (ti)$_{SS}$ – the security environment:**

- Other laws that regulate anything that is related to the conditions in which the ongoing security incident.

4. WHAT´S NEW IN CRISIS MANAGEMENT IN THE CZECH REPUBLIC

What is essential for crisis management in the Czech Republic? It is to maintain the difference for the process of solutions to military and non-military crisis situations. In this situation it is necessary to point out the fact that it was necessary to begin to differentiate between protecting the society and protecting the population. In practice, it began to appear the differences both in terms of the urgency of addressing the threats, but also along with the immediate application of the security forces of the state.

Military threats fortunately have not proved in recent years, only the quantum of Armed Forces in UN missions, the NATO, the EU outside the Czech Republic has increased. The numbers of the Czech Army dropped from 1989 to 2010 by about a quarter. This process was accompanied by the promotion of the principle of "collective defense". Conceptual documents respect the international environment, the NATO and the EU membership. The concept of further development has been concentrated in the preparation of Military Strategy (2008) and the White Book on Defense (2011).

Non-military threats have been handled at a high professional level and in 2010, the Czech Republic recalled the 10th anniversary of “crisis acts", verification of the correctness of the decision on the change of the security system. The idea here was:

- The transfer of Civil Defense from the Ministry of Defense to the Ministry of Interior,
- The adoption of the Act on Integrated Rescue System,
- Entrusting the Fire & Rescue Service of the CR with the tasks of population protection, fire protection, preparing for emergencies (crisis management and civil emergency planning) and coordination of the Integrated Rescue System.

Experience shows statistically that every one hour represents solutions to 16 incidents with working departures. Fire Department receives telephone calls on the European emergency number 112 and introduced national computer application, which in 2009 was judged the best in Europe. Significantly the coordination of integrated rescue system improved namely between the Fire Department, Ambulance and Police.

New security strategy is prepared for the approval and is even more linked to the national reflection of security involvement of the Czech Republic internationally.

The most important treasure of crisis management are people in positions of crisis managers and prepared professionals who are involved. The opinion research has showed that 98% of the trust and estimation enjoy the professional firefighters – rescuers.

Accumulation of responsibility and operability for fire protection and population protection including already mentioned coordination of activities which use the digitalized security environment has brought positive results for Fire & Rescue Service of the Czech Republic.

5. CONCLUSION

The Czech Republic changed the approaches to crisis management and has achieved high quality and reliable results in comparison with other countries. The paper introduced the development of theoretical knowledge towards the securitology and a modeled expression of security reality. It briefly introduced the security policy and security system in the Czech Republic and the significant changes that the security system has undergone were highlighted. Practical changes to crisis management without changes in legislation are not possible in a democratic society but what is the most valuable are the people in the crisis management system.

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