

Captain Pavel Spulak, Senior Commissioner of the Fire Rescue Service of the Czech Republic, tell Brian O'Shea about the CBRN response of their Integrated Rescue Service

No one beats the IRS!

BOS: What is the role of the Fire Service in dealing with CBRN attack? What assets do you have to deal with that task?

PS: In case of a CBRN attack the role of Fire Rescue Service (FRS) is crucial in the Czech Republic since 2000, when the Act on Integrated Rescue Service was validated. The Integrated Rescue Service (IRS) is not an organisation but a system for coordinating rescue and clean-up operations for various agencies. The main reason for this system was a strong need for having common procedures for various kinds of accidents. Another very important point is that the IRS is checked daily. The basic elements of the IRS are the Fire Rescue Service and the Police and Emergency Medical Service (EMS). FRS plays a key role in IRS, because firemen have the position of officers in charge and this is applied both for fires and CBRN incidents. The most important tasks in the case of a CBRN

incident are first aid to disabled citizens, presence of hazmat confirmation, timely population warnings, identification of hazmat, determination of contamination degree and location of contaminated area, enclosure of contaminated area, decontamination, evacuation of population and rescue and remedy work.

BOS: What is the role of the Civil Emergency Planning Committee and how does it impact on the Fire Service and CBRN?

PS: The government of the Czech Republic established the Civil Emergency Planning Committee (CEPC) as one of the permanent working bodies of the National Security Council by its decision in June 1998. Its main scope is focused on the coordination and planning of the arrangements to ensure national security. In the framework of this coordination CEPC focuses on planning of arrangements for the protection of the

population and critical infrastructure, including provisions in case of a radiation accident, preventive measures against weapons of mass destruction usage including solutions for removal of their impact and harmonisation of requirements regarding civil resources needed for national security. Moreover, CEPC has been engaged in the security research of the Czech Republic.

In particular CEPC ensures intergovernmental coordination and evaluates implementation of preventive, planning and conceptual arrangements and activities. It also judges, negotiates and coordinates activities of the representatives of the Czech Republic in the EU, NATO and other international bodies, deals with the plan of civil resources' requirements designed for the national security and coordinates security research. A number of documents were elaborated and discussed by the CEPC members and



The Czech Republic has excellent interagency cooperation between agencies for emergencies ©FRS CZ

Book Now! CBRNe Singapore Workshop, 12-13 November, Singapore – More Information on www.cbrneworld.com

Bio-Detection Questions?

Demand Answers!

You have a right to
Common Standards and
Validated Specifications.

Call Us.
Get Objective Information.



www.dycor.com
E-mail: sales@dycor.com

+31 588445632 (International)
1-800-663-9267 (North America)

No one beats the IRS!

consequently approved by the National Security Council and the government of the Czech Republic.

The main responsibility for the leadership and activities of the CEPC is held by the ministry of the interior. The chairman of the CEPC is the minister of the interior and its members are the high-level representatives of the most important governmental bodies. Additionally, CEPC membership covers the whole spectrum: internal and foreign affairs, industry, agriculture, finance, banking, transport, social issues, culture, environment, education, health, justice, telecommunications, nuclear security, military, police and the fire service. The representatives of intelligence and the National Security Council secretariat participate in the CEPC meetings as well. As regards the impact on the Fire Service and CBRN area, it is influenced by the direct attendance of the relevant bodies, which take an active part in the CEPC activity. This participation produces concrete documents involving relevant proposals of measures, their implementation and solutions resulting from the exercise evaluation on CBRN.

BOS: What level of training do you get in terms of dealing with radioactive or other Hazmat? Is this purely conventional Hazmat training or do you have CBRN or even EOD skills?

PS: Training is an essential part of our work. It is important to have not only well-educated tutors, but also knowledge of competent candidates for training. In connection with hazmat risks our fire units are divided into three levels according to their location, equipment and devices. Fire units Level 1 deal with leakage of hazmat. Training is carried out in fire schools and in the Institute of Population Protection. Beside this, we have available highly qualified personnel in chemical laboratories, which are also engaged in training activities. We cooperate with other bodies such as the National Institute for Nuclear, Chemical and Biological Protection and the police.. For better understanding we would like to mention some courses from the area of CBRN training: Radiation Protection, Detection and Sampling, Principles of Intervention on Scene with Presence of

Chemical Warfare Agents and Decontamination. All previously mentioned training courses are particularly focused on CBRN risks. Training activities relate not only to skills and technology, protective suits and other means of handling contamination, but also to improving best practice and good automatism, for instance in activities at the area of the hot zone. Our firemen have only limited experience with EOD, because the Police Pyrotechnical Service carries out these activities.

BOS: How do you balance the skills for CBRN with the large amount of volunteer firemen? Is CBRN a purely professional task, with the volunteers providing support as directed?

PS: The situation is not simple. We have about 90,000 volunteers and it is not possible to provide CBRN training and gas-tight protective suits etc for all of them. From this point of view CBRN intervention is purely a professional task and volunteers can provide only support in the cold zone.

BOS: How do you coordinate with other agencies such as the army and police?

PS: The police is one of the basic bodies of IRS. So is the army. It belongs to so-called other bodies of IRS and therefore the activities are coordinated on a strategic level through the mechanisms of the Act on the Integrated Rescue Service. In addition to this Act, the Fire Rescue Service (FRS) has agreements on mutual assistance with other governmental bodies and also with NGOs.

The officer in charge controls the activities at a tactical level. In order to establish the mechanisms of a common tactical framework on the scene, various bodies of the IRS have been supplied with the Working Manual for Agencies of the IRS at the Incident Scene. There is also a special manual for the case of terrorist attack with a dirty bomb or biological agent etc.

BOS: How do you balance saving lives with saving evidence? Do police enter the hot zone with you, or do you take samples for criminal investigation?

PS: Speaking about a CBRN incident or suspicion of such an incident is always very complicated because only few units of the police are equipped with protective suits and therefore including the police in activities in the hot or warm zone depends on the level of its protection. If there is a possibility of an incident, for instance in the case of a political event, relevant police units are equipped with protective suits and before their action they have to undergo special training. The same situation applies to the EMS. The condition of various types of protective suit equipment in most European countries is probably the same or even worse than in the Czech Republic. Therefore, in the case of a hazmat incident, firemen are deployed in the hot zone. In the case of a major incident with a large amount of casualties, the FRS also conducts triage.

BOS: How do you manage mass decontamination? Do you have fixed assets that you can use – swimming pools etc – or do you have to bring your own mobile mass decontamination system? How do you know where to set it up since the meteorological conditions make a good site difficult to find, but you need to have it close enough to the edge of the hot zone to be practical?

PS: In case of some mass incidents we could consider the use of swimming pools etc as a fixed decontamination system, but we usually prefer a mobile mass decontamination system, which is much more flexible and effective on scene. We use decontamination lines, which usually consists of three sections (undressing, shower and drying sections including a dressing room). The system is simple to assemble and disassemble. A group of five trained people can start decontamination in 15 minutes after arrival on the scene. For important activities, including decontamination on scene, we have the expertise. A decontamination line is set up on the borders between the hot and warm zones. According to the direction of the wind, the officer in charge can find an optimal location. We understand the term of decontamination as a process of elimination of hazmat risks. It is not seen as an absolute solution for the contamination.

Book Now! CBRNe Singapore Workshop, 12-13 November, Singapore – More Information on www.cbrneworld.com



The Big "10"

Test 10 Biothreat Agents Simultaneously

Now you can test for 10 deadly pathogens in less than 30 minutes. The 10™ Target Screen Kit comes with all of the items for sample gathering and testing for 10 of the most relevant bioterrorism pathogens.

Samples are analyzed on our Homeland Security-approved RAZOR® and RAZOR® EX instruments. This system identifies biological agents using DNA-based, field-proven PCR. Fast and easy to use, delivering reliable results every time.

The 10 Target Screen Kit is compatible with both the RAZOR EX and the original RAZOR system.

Anthrax
Tularemia
Brucella
Coxiella
E. coli O157
Botulism
Ricin
Salmonella
Smallpox
Plague



The RAZOR EX with test pouch

The RAZOR EX Instrument features:

- + Bluetooth connection for PC data transfer, analysis, and archiving.
- + Large color screen and push button operation for use when wearing personal protective equipment (PPE).
- + Bar code reader for great operability.

Visit us at booth 24 during CBRNe World's 2008 Conference in Bucharest or online at www.idahotech.com to learn more and to request a demo.

* Check Web site for additional tests.

No one beats the IRS!

In addition to mass decontamination, our firefighters have available a few engine and vehicle decontamination lines, which are designed as a mobile car wash. If engines or vehicles have to quit the hot zone, they should drive through this decontamination line. The line is operated through a remote control system. It uses traffic lights and its water system is as environmental friendly as possible. The engine and vehicle decontamination line was practically tested for the first time at rescue and clean-up operations connected with the liquidation of poultry, infected with avian influenza H5N1 in the Czech republic last year.

BOS: What detectors do you have? Do you detect as well as chem and rad, and, if so, at what level? Detection or also preliminary identification?

PS: The FRS has available five chemical laboratories containing a stationary laboratory and mobile laboratory as well. These laboratories are equipped with chem and rad devices at a very high level. The chemical laboratories provide support for fire units not only in stationary labs, but also on scene. They provide identification, sampling or informational support on hazmat. The chemical laboratories are equipped with chem devices using various analytical principles: IMS, PID, electro-sensors, FTIR spectrometry, Raman spectrometry, GC/MS, X-ray fluorescence, AAS. Rad devices are used in any field application requiring dose rate measurements, searching sources of ionizing radiation, nuclide identification and spectra acquisition and analysis.

All professional fire units are equipped with detectors containing simple detection kits (detection tubes) and detection papers, designed to detect the presence of chemical warfare agents. Fire units of Level 1 are in addition equipped with portable Raman Spectrometer produced by the Ahura Corporation for solid and liquid hazmat identification (including chemical warfare agents) and a portable GDA-2 analyzer produced by Air Sense for hazardous gas and vapor identification. All professional fire units

are also equipped with personal and operational dose meters and radiometers, which are designed to measure the dose rate of gamma ionizing radiation, to detect beta ionizing radiation, to measure surface activity and contamination caused by radioactive particles.

We do not have any bio-detectors. In the case of a suspicion of B-agents we cooperate with the National Institute for Nuclear, Chemical and Biological Protection, which is equipped not only with bio-detectors, but also with bio-classifiers and bio-identifiers. We think that handling bio-classifiers and bio-identifiers is for specialists and therefore firemen do not use it. We are considering purchasing a Genesystems BioCheck kit produced by Alexeter Technologies, which belongs to the category of bio-detectors.

BOS: How do you balance speed of response with the need for protection – which usually mean Level A suit with lengthy donning time and 45 minutes down range? Do you have a range of suits depending on the agent, or are you forced into Level A?

PS: During various exercises we found out that the air consumption of firemen using breathing apparatus during rescue and clean-up operations is different and depends on many factors. Minimum is 30 l/min, though at a maximum some firemen reach the level of about 100

l/min. If the average is about 50 l/min and you have a cylinder with a water volume of 9 litres and air pressure of 300 bar you can breathe for about 50 minutes. But for activity in the hot zone itself the maximum is 30 minutes, because you should take into account the time to arrive and depart the work place and also time for the decontamination.

Level A is according to European standards type 1a, which means gas tight suit with breathing apparatus under clothing. The type 1a is considered as the highest degree of protection and it is used in the hot zone if we do not know the type of agents or if there is the suspicion of B-agents, chemical warfare agents, radioactive materials or very toxic hazmat. If we know which chemical substance is present and its concentration range in the hot zone, we can use another suit type and it is also possible to use not only breathing apparatus, but also a gas mask. The same thing is valid also for the warm zone, for instance during assistance or support activities at the decontamination line, because we need to prolong time and it is not possible or practical to change firefighters every 30 minutes. So we are very interested in the research concerning gas tight suits permeability and the other dynamic parameters of protective suits.



The Fire Rescue Service is looking into increasing research into improved Level A
©FRS CZ

Book Now! CBRNe Singapore Workshop, 12-13 November, Singapore – More Information on www.cbrneworld.com