

# Abstracts

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On August 7, 2006 the state of Georgia conducted a collaborative sampling exercise between the Georgia National Guard 4<sup>th</sup> Civil Support Team Weapons of Mass Destruction (CST-WMD) and the Georgia Department of Human Resources Division of Public Health demonstrating a recently validated bulk powder sampling method. The exercise was hosted at the Federal Law Enforcement Training Center (FLETC) at Glynn County, Georgia and involved the participation of the Georgia Emergency Management Agency (GEMA), Georgia National Guard, Georgia Public Health Laboratories, the Federal Bureau of Investigation Atlanta Office, Georgia Coastal Health District, and the Glynn County Fire Department.

The purpose of the exercise was to demonstrate a recently validated national sampling standard developed by the American Standards and Test Measures (ASTM) International; ASTM E2458 "Standard Practice for Bulk Sample Collection and Swab Sample Collection of Visible Powders Suspected of Being Biological Agents from Nonporous Surfaces". The intent of the exercise was not to endorse the sampling method, but to develop a model for exercising new sampling methods in the context of existing standard operating procedures (SOPs) while strengthening operational relationships between response teams and analytical laboratories.

The exercise required a sampling team to respond real-time to an incident cross state involving a clandestine bio-terrorism production lab found within a recreational vehicle (RV).

Sample targets consisted of non-viable gamma irradiated *B. anthracis* Sterne spores prepared by Dugway Proving Ground. Various spore concentration levels were collected by the ASTM method, followed by on- and off-scene analysis utilizing the Center for Disease Control (CDC) Laboratory Response Network (LRN) and National Guard Bureau (NGB) CST mobile Analytical Laboratory Suite (ALS) protocols. Analytical results were compared and detailed surveys of participant evaluation comments were examined.

I will present an overview of the exercise, our research findings and suggestions for replicating the exercise in other states.

## 29. THE CZECH NATIONAL ACTION PLAN ON COMBATING TERRORISM: POLITICAL AND LEGAL POINT OF OUTCOME IN RESPONDING TO CBRNE-TERRORISM (6)

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After the events of September 2001 starting new era in the global terrorism, pursuant to the UN Security Council Resolutions 1368, 1373, and 1377 (2001), new security threats were identified and needs to fight against international terrorism were stressed. In the Czech Republic, a complex approach and broad institutional co-operation including inputs of scientific research (including author's involvement) to analyse endangered critical infrastructures and respective countermeasures had led to strengthening national measures in implementing respective international agreements dealing with WMD non-proliferation under deepening the co-operation within EU and NATO.

The concrete complex programme of harmonised effort of all state organs in combating international terrorism resulted in the Czech National Action Plan on Combating Terrorism (2002).

This (yearly updated) binding political document (issued by the Czech Government) identifies threats to all sectors of society and contains agreed harmonised active measures to be undertaken by involved organisations and institutions in all aspects of prevention, repression, protection, rescue and recovery for cases of terrorist attacks. The contents and respective measures are presented and discussed in detail with special emphasis on the aspects of CBRNE terrorism and role of Integrated Rescue System.

**Key words:** CBRNE terrorism, National action plan on combating terrorism, prevention, repression, protection, rescue, recovery, Integrated rescue system

## 30. ROLE OF THE CHEMICAL WEAPONS CONVENTION (CWC) IN COMBATING CHEMICAL TERRORISM (9)

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Main reason for concluding the CWC was preventing use of CWs in hostilities by state actors. Chemical terrorism is a broader phenomenon involving not only misuse of CWs but also of non-weaponised toxic compounds and intended strikes on industrial and social infrastructures with release of toxic, liquefied and inflammable chemicals. Nevertheless, the CWC is an important instrument in combating the most dangerous forms of international chemical terrorism.

The effort of OPCW and mainly of SPs national authorities ensure that chemicals produced for peaceful purposes are not misused, provide some guarantees that terrorists will not be able to acquire or make their own CWs. That is why universality of the CWC and respective national implementation measures including comprehensive legislation are of utmost importance. The enforcement by all countries of the CWC's requirement to make the development, production, stockpiling, transfers and use of CWs illegal for anyone means that terrorist could be put on trial for violating the CWC.



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The OPCW's expertise and knowledge of CWs, verification regime and the system of assistance and protection under the CWC as a reflection of international co-operation are being put to use to prevent and respond to chemical terrorist strikes and thus considerably diminish their potential consequences.

It can be added that pursuant to the UN SC Resolution 1540, all nations are obliged to take actions ensuring that non-State actors cannot develop, produce, use or trade CWs in the terms of the CWC. Current status of implementing the CWC is analysed with special emphasis on prevention of and response to terrorist chemical attacks.

**Key words:** Chemical Weapons Convention, chemical terrorism, assistance and protection, OPCW, National Authorities

## 31. CANADA'S GLOBAL PARTNERSHIP PROGRAM (8)

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Curbing the proliferation of biological weapons (BW) is an essential element of the *Global Partnership Against the Spread of Weapons and Materials of Mass Destruction*. At the Kananaskis Summit in June 2002, G8 Leaders committed to prevent terrorists, or those that harbour them, from acquiring or developing biological weapons and related materials, equipment and technology.

To this end, Canada's Global Partnership Program is investing heavily in biological non-proliferation activities in countries of the former Soviet Union.

A comprehensive strategy has been developed to help improve biological safety (biosafety) and biological security (biosecurity) with provision for addressing dual-use concerns. Raising awareness and creating a self-sustaining culture of biosecurity is a key driver of the program. Through this strategy, Canada is assisting various FSU countries to:

- develop and implement effective and practical biosafety/biosecurity standards and guidelines
- establish national and/or regional biosafety associations
- develop and deliver effective biosafety and biosecurity training
- put in place enhanced physical security measures and equipment

In addition to biosafety and biosecurity, the GPP supports a broad range of Biological Non-Proliferation projects and initiatives, including dozens of projects aimed at redirecting former biological weapons scientists. To date, most of these activities have been supported through Canada's contribution to the International Science and Technology Center

(ISTC) and the Science and Technology Centre Ukraine (STCU).

**Key words:** Global Partnership, Biosecurity, Biosafety, Biological Non-Proliferation

## 32. SOME GENETIC CHARACTERISTICS OF THE POPULATION RESIDING NEARBY NUCLEAR POWER PLANT. THE FIRST STEP (13)

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There is Sosnovy Bor with 60 thousands of inhabitants located 80 km to the west from the centre of St. Petersburg. Here is the greatest and the oldest nuclear power plant, LNPP, with four reactors of the RMBK-1000 (Chernobyl) type. In fact every Sosnovy Bor inhabitant is connected with nuclear technologies. The strategy of the city development is formed and controlled by the policy of federal bodies. It is very difficult to have access to any demographic data and documents reflecting status of population health. Low doses of ionizing radiation are known to cause mutations in germ cells. A great part of the population of Sosnovy Bor works in the NPP and is exposed to low dose ionizing radiation.

This paper presents some genetic characteristics of Sosnovy Bor inhabitants including monogenic diseases (phenylketonuria, Duchenne muscular dystrophy, lysosomal diseases, hypothyroidism etc), chromosomal pathology (Down syndrome, Turner and Klinefelter diseases), multiple malformation syndromes and results of aFP screening of pregnant women with high rate of abnormal values of aFP and hHG.

These results are obligatory basis and the first step to conduct a study on possible genetic effects of LNPP on genetic structure of Sosnovy Bor population.

**Key words:** genetic characteristics, population, NPP

## 33. PATTERN OF MORBIDITY AND MORTALITY IN KURDISTAN / IRAQ WITH AN EMPHASIS ON EXPOSURE TO CHEMICAL WEAPON (14)

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A cross-sectional survey was carried out in Kurdistan -Iraq during the period 2000-2001 to determine patterns of morbidity and mortality among Kurdistan population with special emphasis on those exposed to bombs and shell injuries and chemical weapons.

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