NATO
Science for Peace and Security (SPS) Programme
Workshop on CBRN Defence – 22-24 October 2013 – Brussels

Emerging Security Challenges Division
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Advanced Training Course:

*Identification and Neutralization of Chemical Improvised Explosive Devices (Chem-IED)*

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General overview - Challenge

• The recent use of chemical weapons in Syria, unstable situation in Lybia, rapid development of chemical industry all over the world

• Increasing risk of use of toxic chemicals and explosive materials in the terrorist activities and other crimes

• This bringing:
  ➢ mass killings and many victims,
  ➢ disruption of social life,
  ➢ economic burdens to society, more than other criminal acts,
  ➢ diminish security
General overview – Challenge (2)

• There are many national and international activities that address the challenge of illegal use of CBRNe materials.

• They are oriented towards the prevention, preparedness for and response to the misuse of CBRNe agents for illegal purposes

• Procedures for Nuclear and Explosive (and Radiological) threats developed and trained

• Intimidation from Chemical IEDs (IED filled with toxic chemicals - Chem-IED) is not
General overview – IEDs

Improvised Explosive devices (IED)

➢ „Classic” IED
➢ „Dirty bomb” – Radiological IED
➢ Biological IED
➢ Chemical IED (Chem-IED) – improvised explosive devices filled with toxic chemicals (Chemical Warfare Agents - CWA, Toxic Industrial Chemicals - TIC)
General overview – need for synergies

• There is an urgent need to capitalize on the national and international experience gathered
• The ATC will gather leading national and international programs to unite efforts
• The ATC will seek to develop synergies to address different aspects of:
  • prevention,
  • preparedness for, and
  • response to
  the use of toxic chemicals and explosive materials in the terrorist activities and other crimes
Organizers and Leading partners in ATC

- **Leading organizations:**
  - Military University of Technology (MUT), Warsaw, Poland (NATO Country Co-Director)
  - International Centre for Chemical Safety and Security, Poland
  - Institute of Bioorganic Chemistry and Petrochemistry of National Academy of Sciences of Ukraine (BPCI), Kiev, Ukraine (Partner Country Co-Director)
  - Military Institute for Engineering Technology, Wroclaw, Poland
  - TNO – the Netherlands Organization for Applied Scientific Research, The Netherlands,

- **Invited partners and experts from Germany, Netherlands, Czech Republic, US, Interpol, OPCW, EU, UN, IAEA**
The ATC Participants

• Trainees primarily from Partner countries
• The NATO-country trainees are not excluded
• The ATC trainees will be selected in their countries
• Strict demand to select only candidates actually involved in first response and antiterrorist activities
  ➢ members of first response units or police and counter-terrorism bomb squads
  ➢ managers/supervisors of the of first response units
• The course organisers preserve the right to decline candidates who do not match established criteria
Programme of the ATC

• 5 working days – 40 hours
  ➢ 15 hours of lectures,
  ➢ 9 hours of interactive discussions and seminars
  ➢ 16 hours of field and laboratory exercises

• The methodology of the ATC is based on:
  ➢ introductory lectures
  ➢ lectures are supported by laboratory experiments
  ➢ brain storming and scenario building seminars
  ➢ training and practice drills conducted on a proving ground,
  ➢ ATC concluded with the seminar on the content, performance and attendees experience exchange
Content of the ATC – open sources only!

• The subjects of the course cover, among others:
  - International and national potential and responses to CBRN threat,
  - Explosives and their properties, IEDs construction,
  - Chemical Warfare Agents (CWA) and toxic industrial chemicals (TIC),
  - Occupational safety aspects of IED/Ch-IED handling, personal protective equipment (IPE) and collective protection,
  - Detection of chemicals, Non-destructive evaluation techniques (NDE),
  - Disarming and disposal techniques of Chem-IEDs, decontamination procedures.

• The ATC targets the scenarios of using the devices, methods of their detection, safe neutralization and disposal, as well as countermeasures, which should be undertaken in the case of using such devices in the terrorist action(s)
Core objectives of ATC

- To enhance national capacity building and to promote synergies between experts to deal with improvised explosive devices filled with Chemical Warfare Agents (CWA) and toxic substances
- To collect the existing experience and capacities and promoting advanced technologies, methodologies and best practices
- To discuss courses and model curriculums for law enforcement agencies to be published in response guides
Core tasks of the ATC

• To look forward for development of effective prevention, preparedness for and response to use of toxic chemicals and explosive materials in the terrorist activities and other crimes as the strategic priority;

• To discuss and develop proposals for comprehensive program to meet the challenges of use of Chem-IED and illegal use of toxic chemicals

• To gather and register the national and international partners who possess relevant potential

⇒ OPEN CHARACTER OF THE ATC
Specific Goals of the ATC

1. To assemble, systematise and adapt the best available expertise, knowledge and techniques relevant to the subject of Chem-IED
2. To train skilled personnel in the practical aspects of the response to chemical, physical and psychological risk resulting from possible use of Chem-IED
3. To provide relevant training and capacity-building for participation in both local and multinational operations to meet emerging security challenges in the area of counter-terrorism
4. To elaborate and publish proceedings, curriculum and developments of the course
Results/Expected Outcomes of the ATC

- Enhancement of knowledge on security developments, including advanced technologies, methodologies and best practices
- Improvement of skills of trainees on highly specific areas
- Increase national and international antiterrorist security level, specifically decrease vulnerability and increase resilience in incidents involving Chem-IED
- Enhancement of trainees’ countries preparedness in the cases of Chem-IED attacks
Results/Expected Outcomes of the ATC (2)

- Preparation of the course curriculum, in particular covering recent developments in the detection, identification and safe neutralisation/disposal of Chem-IED
- Recommendations for trainees how to create learning curriculum in their own countries;
  - it will display strengths which can be followed and reveal gaps to be filled and weaknesses to be corrected in future
- Published results of the course, in particular the assessed and evaluated methodology; publication will be disseminated between NATO countries
The ATC impact – contribution to CBRN Defence

• Preparation of the methodology of curses dealing with multifaceted threat
• Finding synergies between different fields of expertise involved in Chem-IED
• Increased capacity of NATO and Partner countries to countermeasure threat of malicious use of toxic chemicals
• Standardization of approach and procedures resulting in enhanced interoperability in case of seeking assistance
• Developed curriculum will influence teaching preparedness and response to deal with similarly constructed devices
The ATC impact – contribution to regional cooperation and security

- Development of security standards matching international requirements
- Improvement of interoperability and effectiveness of international cooperation
- Greater compatibility between NATO and Partner countries security systems
- More effective international cooperation in counter-terrorism operations
Looking forward

• Enhancing NATO Partner countries:
  ➢ to develop specific procedures and to run specialised trainings on recognition, handling and safe disposal of Chem-IED
  ➢ to develop security standards matching international requirements, and
  ➢ to improve interoperability and effectiveness of international cooperation on this area

• NATO countries will benefit from greater compatibility between their and Partner countries security systems
Way Forward

Looking forward (2)

• Published and disseminated results of the course shall:
  ➢ improve security and antiterrorist preparation in NATO countries,
  ➢ assist to share NATO standards among Partner countries
  ➢ make their systems more compatible between themselves and between NATO countries as well

• ATC is focused on Chem-IED, but will also deal with IED containing biological load (and radiological load)

• The lessons learned from the course will be used to develop a programme to meet the threats of Chem-IED use and expand similar courses to meet CBRN threats.
Questions?

Comments?
Thank you for your attention

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