Civil-Military Cooperation in CBRN-E (Research)

12th Meeting of the Community of Users on Secure, Safe and Resilient Societies CBRN-E - 3rd Dec 2018

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LTC MA (FH) Roman LAIMER (AUT-A)

JCBRN Defence Centre of Excellence

NATO UNCLASSIFIED – RELEASABLE TO EU
Introduction

NATO JCBRN Defence Centre of Excellence (JCBRN Defence COE)

Military Emergency Preparedness and Consequence Management

- Doctrine on Consequence Management (CM)
- NATO’s Consequence Management Capabilities (MIL)
- NATO’s Consequence Management Capabilities (CIV)
- EADRCC Consequence Management Exercises

JCBRND COE efforts in CIV-MIL Coop
Introduction

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  - since 1\(^{st}\) OCT 2018
  - Deputy Director and DEU SNR

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- Member of the **JCBRN Defence COE**
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NATO Centre of Excellence

Definition

➢ A Centre of Excellence is a nationally or multi-nationally sponsored entity, which offers recognised expertise and experience to the benefit of the Alliance, especially in support of transformation.

➢ A Centre of Excellence is not part of the NATO Command Structure…

MCM 236-3, dated 4 Dec 2003
NATO Centres of Excellence Overview
# NATO Centres of Excellence

## Status & Participants & Location

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<th>Centre of Excellence (COE)</th>
<th>FWN</th>
<th>Sponsor Nations</th>
<th>Location</th>
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<tr>
<td>1 Joint Air Power Competence Centre (JAPCC)</td>
<td>DEU</td>
<td>BEL, CAN, CZE, DEU, DNK, ESP, GBR, GRC, HUN, ITA, NLD, NOR, POL, ROU, TUR, USA</td>
<td>Kalkar, DEU</td>
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<tr>
<td>2 Defence Against Terrorism (DAT)</td>
<td>TUR</td>
<td>BRG, DEU, GBR, HUN, NLD, ROU, TUR, USA</td>
<td>Ankara, TUR</td>
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<tr>
<td>3 Naval Mine Warfare (NMW)</td>
<td>BEL &amp; NLD</td>
<td>BEL, NLD, ITA, POL*</td>
<td>Ostend, BEL</td>
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<tr>
<td>4 Combined Joint Operations from the Sea (CJOSS)</td>
<td>USA</td>
<td>CAN, DEU, ESP, FRA, GBR, GRC, ITA, NLD, NOR, PRT, ROU, TUR, USA</td>
<td>Norfolk, USA</td>
</tr>
<tr>
<td>5 Civil–Military Cooperation (CIMIC)</td>
<td>NLD &amp; DEU</td>
<td>DEU, DNK, HUN, IVA, NLD, POL, SVNH</td>
<td>The Hague, NLD</td>
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<tr>
<td>6 Cold Weather Operation (CWO)</td>
<td>NOR</td>
<td>NOR</td>
<td>Elverum, NOR</td>
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<tr>
<td>7 Joint Chemical Biological Radiological &amp; Nuclear Defence (JCBRN)</td>
<td>CZE</td>
<td>CZE, DEU, FRA, GBR, GRC, HUN, ITA, POL, ROU, SVK, SVNH, USA</td>
<td>Výškov, CZE</td>
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<tr>
<td>8 Analysis and Simulation Centre for Air Operation (AO COE)</td>
<td>FRA</td>
<td>FRA</td>
<td>Lyon Mont Verdun, FRA</td>
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<tr>
<td>9 Command &amp; Control (C2)</td>
<td>NLD</td>
<td>DEU, ESP, EST, NLD, NOR, SVK, TUR, USA</td>
<td>Utrecht, NLD</td>
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<tr>
<td>10 Cooperative Cyber Defense (CCD)</td>
<td>EST</td>
<td>BEL, CZE, DEU, EST, FRA, GBR, GRC, HUN, ITA, LVA, LTU, NLD, NOR*, POL*, PRT*, SVK, SVNH, USA, AUT, FIN, SWE</td>
<td>Tallinn, EST</td>
</tr>
<tr>
<td>11 Operations in Confined and Shallow Waters (CSW)</td>
<td>DEU</td>
<td>DNK, DEU, GRC, ITA, LTU, NLD, POL, TUR, UN</td>
<td>Kiel, DEU</td>
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<tr>
<td>12 Military Engineering (MILENG)</td>
<td>DEU</td>
<td>BEL, CAN, CZE, DEU, DNK, ESP, FRA, GBR, GRC, HUN, ITA, NLD, NOR, POL, ROU, TUR, USA</td>
<td>Ingolstadt, DEU</td>
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<td>13 Military Medicine (MILMED)</td>
<td>HUN</td>
<td>BEL, CZE, DEU, FRA, GBR, HUN, ITA, NLD, ROU, SVK, USA</td>
<td>Budapest, HUN &amp; Munich, DEU</td>
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<td>14 Human Intelligence (HUMINT)</td>
<td>ROU</td>
<td>CZE, GRC, HUN, POL, ROU, SVK, SVNH, TUR, USA</td>
<td>Oradea, ROU</td>
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<td>15 Counter – Improvised Explosive Devices (CIED)</td>
<td>ESP</td>
<td>CZE, DEU, ESP, FRA, HUN, GRC*, NLD, PRT, ROU, TUR, USA, SWE</td>
<td>Madrid, ESP</td>
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<td>16 Explosive Ordnance Disposal (EOD)</td>
<td>SVK</td>
<td>CZE, HUN, POL, ROU, SVK</td>
<td>Trnava, SVK</td>
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<tr>
<td>17 Modelling and Simulation (M&amp;S)</td>
<td>ITA</td>
<td>CZE, DEU, ITA, USA</td>
<td>Roma, ITA</td>
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<tr>
<td>18 Energy Security (ENSEC)</td>
<td>LTU</td>
<td>DEU, EST, FRA, GBR, ITA, LVA, LTU, TUR, USA, GEO</td>
<td>Vilnius, LTU</td>
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<tr>
<td>19 Military Police (MP)</td>
<td>POL</td>
<td>BGR, CZE, DEU, GRC, HUN*, HRV, ITA, NLD, POL, ROU, SVK</td>
<td>Bydgoszcz, POL</td>
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<td>20 Strategic Communications (STRATCOM)</td>
<td>LVA</td>
<td>DEU, EST, FRA, GBR, ITA, LVA, LTU, NLD, POL, FIN, SWE*</td>
<td>Riga, LVA</td>
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<tr>
<td>21 Crisis Management and Disaster Response (CMER)</td>
<td>BGR</td>
<td>BGR, GRC, POL</td>
<td>Sofia, BGR</td>
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<tr>
<td>22 Mountain Warfare (MW)</td>
<td>SVN</td>
<td>DEU, HRV, ITA, SVN, AUT</td>
<td>Begunje na Gorenjskem SVN</td>
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<tr>
<td>23 Stability Policing (SP)</td>
<td>ITA</td>
<td>CZE, ESP, FRA, ITA, NLD, POL, ROU, TUR, USA, SVK</td>
<td>Vicenza, ITA</td>
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<tr>
<td>24 Counter Intelligence (CI)</td>
<td>POL &amp; SVK</td>
<td>CZE, DEU, HUN, HRV, ITA, LTU, POL, ROU, SVN, SVK</td>
<td>Krakow, POL</td>
</tr>
<tr>
<td>25 Security Force Assistance (SFA)</td>
<td>ITA &amp; ALB, SVK</td>
<td>DEU, GRC, POL</td>
<td>Roma, ITA</td>
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</tbody>
</table>

*In Red: Partner Nations  In Yellow: In Accreditation Process  *: In Process of Joining

NATO UNCLASSIFIED – RELEASABLE TO EU
NATO Joint CBRN Defence COE

Mission

Within a *Programme of Work*

- Provide *advice* in all CBRN Defence related areas.
- Develop CBRN Defence *doctrines, standards, knowledge*.
- Enhance CBRN Defence *education and training*.
- Contribute to the *Lessons Learned Process*.
- Assist in the CBRN Defence related efforts, including validation through *experimentation*. 
NATO Joint CBRN Defence COE

Functional Structure

Co-ordination & Collaboration
Sponsoring Nations, Contributing Partners, NATO, EU MS, other Partners

CBRN Defence Information Knowledge Management

Transformation Support
- Concept and Doctrine Development
- Capabilities Development & Defence Planning
- CBRN Experimentations

Training, Exercise, Education
- Training, Exercise & Education
- Development and Evaluation
- Evaluations and Lessons Learned Analysis

Operational Support
- CBRN Reachback
- Modeling & Simulation Capabilities
- CBRN Operations Planning Support

Framework Nation Support

Steering Committee Funding and Guidance

NATO UNCLASSIFIED – RELEASABLE TO EU
Military Emergency Preparedness and Consequence Management

Doctrine on Consequence Management (CM)

**Definition:** Actions taken to maintain or restore essential services and to lessen the effects of natural or man-made disasters.
Military Emergency Preparedness and Consequence Management

Doctrine on Consequence Management (CM)

NATO’s Comprehensive, Strategic-Level Policy for Preventing the Proliferation of Weapons of Mass Destruction (WMD) and Defending against Chemical, Biological, Radiological and Nuclear (CBRN) Threats

17. (...) The Alliance will also continue to enhance capabilities to support consequence management and crisis management.

23. (...) However, major civil emergencies can pose a threat to security and stability, and because CBRN consequence management is challenging and could be a massive, costly and protracted effort, NATO will be prepared to lend its capabilities to national authorities, (...).

24. Planning for CBRN consequence management is a multi-dimensional effort, requiring coordination within the Alliance at all levels, as well as with civilian emergency planning authorities and other international organisations, (...).

32. (...) In addition, it will enable the provision of accurate, timely and credible information to the media, in the case of a CBRN event and facilitate consequence management and recovery efforts by keeping the affected population informed.

REFERENCE: C-M(2009)0048 (INV)
Military Emergency Preparedness and Consequence Management

Doctrine on Consequence Management (CM)

NATO’s Comprehensive, Strategic-Level Policy for Preventing the Proliferation of Weapons of Mass Destruction (WMD) and Defending against Chemical, Biological, Radiological and Nuclear (CBRN) Threats.

Possible Alliance Activities

Political
- Declaratory Statement
- Diplomatic Support
- Arms Control, Disarmament & Non-proliferation
- Threat Assessments
- Practical Support for International Non-Proliferation Efforts
- Global Cooperative Threat Reduction
- Monitor Global R&D Trends
- CBRN Consequence Management Planning
- Crisis Management Training & Exercises

Military
- Capabilities to Impede Illicit Proliferation
- Operational Training & Exercises
- Active Defences to Defeat WMD Threat
- Capabilities to Detect, Identify, Render Safe, Dispose
- Capabilities for Personal/Collective Protection
- Mitigation Measures to Recover from CBRN

Civilian
- Capabilities for Decontamination
- Passive Defences to Protect Against CBRN
- Mitigation Measures to Recover from CBRN

PREVENT
- Declarations
- Diplomatic and Security Co-operation
- Practical Assistance
- Information and Intelligence Sharing

PROTECT
- Defence Against Terrorism
- Capabilities to Defeat, Identify, Render Safe, Dispose
- Capabilities for Personal/Collective Protection
- Mitigation Measures to Recover from CBRN

RECOVER
- CBRN Consequence Management Planning
- Crisis Management Training & Exercises
- Capabilities for Decontamination
- Passive Defences to Protect Against CBRN

COOPERATION AMONG NATO BODIES

INTERNATIONAL OUTREACH AND PARTNER ACTIVITIES

PUBLIC DIPLOMACY & STRATEGIC COMMUNICATIONS
Key Tasks: Support subsequent consequence management operations on a case by case basis and within existing means and capabilities.

43. The requirements for civil-military interaction and cooperation in particular have increased significantly. Joint civil-military training and exercise activities reinforce civil-military interaction and cooperation in CBRN Defence and Consequence Management.

66. In addition it is important to ensure a mutual understanding of the specific issues arising when military assets are deployed in support of a civil led consequence management operation.

REFERENCE: MC0603/1
Military Emergency Preparedness and Consequence Management

Doctrine on Consequence Management (CM)

NATO COMPREHENSIVE CHEMICAL, BIOLOGICAL, RADIOLOGICAL AND NUCLEAR (CBRN) DEFENCE CONCEPT

75. Support subsequent consequence management operations, on a case by case basis and within existing means and capabilities:
   a. Support urban search and rescue operations within the framework of cooperation between NATO deployed forces and a stricken nation.
   b. Support in managing affected persons (Triage and registration).
   c. Provide decontamination for CBRN contaminated individuals and contaminated casualties, including considerations for gender and religious aspects to the extent that is operationally feasible.
   d. Conduct measures to mitigate consequences (Decontamination, Removal, Containment etc).
   e. Support CBRN forensics by Sampling and Identification of Biological, Chemical, Radiological Agents (SIBCRA) capabilities.
   f. Conduct CBRN reconnaissance for delimitation of hazardous areas and contamination levels.
   g. Support consequence of missile intercept/missile engagement.
Military Emergency Preparedness and Consequence Management

Doctrine on Consequence Management (CM)

PROPOSALS FOR ENHANCED CIVIL MILITARY COOPERATION IN CHEMICAL, BIOLOGICAL, RADIOLOGICAL AND NUCLEAR (CBRN) DEFENCE

Proposal 1: Develop a joint civil-military concept paper to plan, prepare and operate in the field of CBRN consequence management.

Proposal 2: Investigate, when appropriate, modalities to operate in the field of CBRN consequence management.

Proposal 3: Develop internal strategies to establish links, improve coordination and exchange information, as appropriate, with International Organisations.

Proposal 4: Harmonise CBRN training for civilian and military throughout existing structures and opportunities.

Proposal 5: Enhance civil-military cooperation in the field of Media Strategy and communication to the public.
Military Emergency Preparedness and Consequence Management

NATO’s Consequence Management Capabilities (MIL)

Joint CBRN Defence Task Force

Basic Principles

... a high readiness, joint and combined, multifunctional task force capable of deploying as a whole or to task organize as a mission-tailored force.

... be able to support all NATO operations (except nuclear).

... providing CBRN defence specific capabilities, timely assessments, and advice to deployed NATO commanders and their staff across the full spectrum of operations.

... be held at 5 to 30 days graduated readiness.
Military Emergency Preparedness and Consequence Management

NATO’s Consequence Management **Capabilities (MIL)**

**Joint CBRN Defence Task Force**

**Capabilities CBRND-Bataillon**

- **C^2** capability under CBRN conditions
- Radiological/Chemical Reconnaissance
- Decontamination
- Chemical, Biological and Radiological laboratory analysis
- **CBRN Warning & Reporting**
- Biological Monitoring systems
- **CBRN EOD**
- CBRN Assessment and Advice
- SIBCRA

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Military Emergency Preparedness and Consequence Management

NATO’s Consequence Management Capabilities (MIL)

Joint CBRN Defence Task Force Capabilities CBRND-JAT

CBRN Weapons effects
- prediction of effects of CBRN weapons

CBRN Explosive Ordnance
- conventional & improvised explosive devices - safety/disposal assessments

CBRN Warning and Reporting
- hazard area prediction

CBRN related Intelligence
- collect and analyze intelligence data

CBRN Meteorology
- impact of weather on CBRN incidents
Military Emergency Preparedness and Consequence Management

NATO’s Consequence Management Capabilities (CIV)

Civil Emergency Planning (CEP) tools and methods

CEP is developing tools and methods which could enable Nations, NMAs, other NATO Bodies, International Organisations etc. to enhance their preparedness status:

- Pool of civil experts through reachback (380)
- Advisory Support Teams (AST) & Rapid Reaction Teams (RRT)
- Development of ‘generic’ sectoral guidelines and methodologies with regard to emergency management
- Exchange of best practice
- Euro-Atlantic Disaster Response Coordination Centre (EADRCC)
- Specific cooperation on CBRN Defence
Military Emergency Preparedness and Consequence Management

NATO’s Consequence Management Capabilities (CIV)

EADRCC

Euro-Atlantic Disaster Response Coordination Centre, NATO HQ, Brussels

- Created **1998** by 46 EAPC nations
- **Role:** coordination of EAPC nations’ assistance to each other in case of disaster. Since 2001, also terrorism consequence management; Coordination, at government level - not command and control
- **Scope:** EAPC geographical area, MD and ICI (Gulf Co-operation) countries, areas where NATO is involved militarily
- **24/7** duty officer system
Military Emergency Preparedness and Consequence Management

NATO’s Consequence Management Capabilities (CIV)

EADRCC

Civil Emergency Planning Roles

Civil Support for Alliance Operations under Article 5

Support for non-Article 5 Crisis Response Operations (CRO)

Support for National Authorities in Civil Emergencies

Support for National Authorities in the Protection of Populations against the Effects of Weapons of Mass Destruction (WMD)

Co-operation with Partners

EADRCC’s focus
Military Emergency Preparedness and Consequence Management
NATO’s Consequence Management Capabilities (CIV)
EADRCC

Support to 57 International Operations since 1998
- Ukrainian Floods 1998
- Kosovo Refugee Crisis 1998-1999
- Czech Republic Floods 2002
- Azerbaijan Floods 2003
- Pakistan Earthquakes 2005
- USA Hurricane Katrina 2005
- Bulgaria forest fires 2007
- Albania Ammunition Explosion 2008
- Ukraine H1N1 2009
- Turkey Earthquakes 2011
- Montenegro Snow Storms 2012
- West Africa Ebola 2014
- Syrian Refugees in Turkey 2014
- Iraq Internal Displaced Persons 2014
- Serbia Refugees 2014
- Israel 2016
- Montenegro Forest Fires 2017
- Georgia Forest Fires 2017
- Hurricane Harvey 2017
Military Emergency Preparedness and Consequence Management

NATO’s Consequence Management Capabilities (CIV)

EADRCCE Exercises

Ukraine – 2015
Montenegro – 2016
Bosnia and Herzegovina – 2017
Serbia – 2018

- 48 Nations participated
- 22 Nations participated with Teams
- ≥ 2000 PAX
- Testbed for Nations new capabilities
Military Emergency Preparedness and Consequence Management

NATO’s Consequence Management Capabilities (CIV)

AST – RRT – Guidelines

The main purpose of an AST is to provide expert advice to assist the requesting nation in assessing and further developing its national level of emergency preparedness, response and recovery capabilities at the strategic and operational level.

The AST is not to be deployed to provide consequence management in the aftermath of an event.

RRT

- Fast deployment of civil experts
JCBRND COE efforts in CIV-MIL Coop

CBRN Defence Capability Development in NATO

29 Member Countries

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**JCBRND COE efforts in CIV-MIL Coop**

**Doctrine - Training - Operations Support**

**Doctrine**
- AJP-3.8 (B) **Allied Joint Doctrine for comprehensive CBRN Defence** (to include civ – mil)
- Support Non Binding Guidelines For **Enhanced Civil-Military Cooperation** to Deal with the Consequences of Large-Scale CBRN Incidents

**Training**

- Residential Courses
- Mobile Courses
- ADL Courses

* CEPC – Civil Emergency Planning Committee / Civil Protection Group (CPG) / Euro-Atlantic Partnership Council (EAPC)
** NNSA – National Nuclear Security Administration / Department of Energy (DOE) / USA

https://jadl.act.nato.int/
JCBRND COE efforts in CIV-MIL Coop

Doctrine - Training – Operations Support


- Consequence Management after a CBRN Incident Course (RC)
- CBRN Warning and Reporting System Manual Procedures Basic Course (MC)
- Advanced CBRN W&R Course (MC)
- CBRN General Awareness Training Course (MC)

Countries: Serbia, Jordan, Ukraine, State of Kuwait, Slovakia

- EU E&T Discipline Leader support
- EU project HORIZON 2020 eNOTICE participation
- Prepare the mobile CBRND course for EU in Marocco (MC)
JCBRND COE efforts in CIV-MIL Coop

Doctrine - Training – Operations Support

NATO

2013 7 courses, 104 students, 19 countries
2014 4 courses, 60 students, 12 countries
2015 6 courses, 79 students, 21 countries
2016 7 courses, 116 students, 24 countries
2017 7 courses, 98 students, 28 countries

PfP

MED Dialogue

Other

NATO UNCLASSIFIED – RELEASABLE TO EU
Operations Support

- Reachback
- Modelling & Simulation
- Operational Planning Support

E.g. EADRCC EX SRBIJA 2018

- RFI Terror Lab
CBRN Research Support

- Printed Standards for Stand-off Detection (STO-ST Panel)
- Health Risk Assessment for Chemical Exposures of Military Interest (STO-HFM Panel)
- Long Term Scientific Study on Chemical, Biological and Radiological Defence (STO-HFM Panel)
- Exploitation of Longwave Infrared Airborne Hyperspectral Data, Long Term Capability Requirement Counter Improvised Explosive Device (C-IED) and Counter the CBRN threat (STO-ST Panel)
Questions?
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Aim:

- The aim of the course is to introduce and describe Consequence Management after a CBRN Incident, NATO Crisis Management concept, organization, systems and procedures including Cooperation and Partnership initiatives in CBRN Crisis / Consequence Management to NATO and Partner Nation officers and their civilian equivalents.

Number of participants:

- up to 40 participants

Duration:

- 5 days.
Supporting the European Defence Agency (EDA)

Topic:
• Guidelines for the Development of Military Search CBRNe\(^1\) ID Capabilities.

Participating Nations and Organisations:
• AUT, BEL, CZE, IRL, ITA, NLD, SWE; EDA, EUMS, Joint CBRN Defence COE.

Objective: To stimulate consideration of this topic on national level and with multinational bodies with resp. responsibilities.

Status: Food-for-thought paper (2\(^{nd}\) draft).

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\(^1\) CBRNe is not a NATO agreed term.