NATO Explosive Ordnance Disposal Centre of Excellence

Global EOD Conference & Exhibition
30 APR-1 May 2014
Fort Walton Beach, Florida USA
Agenda

1. EOD COE - introduction
2. Lines of effort
   1. Training & Education
   2. Lessons Learned & Analysis
   3. Concepts, Doctrines & Standardisation
   4. Technologies Development
3. NATO EOD WG update
1.1. COEs status as of December 2013
1.2. EOD COE Mission

Support NATO transformation and operational efforts by

• providing EOD expertise and training to the Alliance and Partner forces
• developing Concepts and EOD Doctrine and supporting the NATO Standardization
• enhancing information sharing and NATO EOD Lessons Learned process
• remaining current in technical development
1.3. Networking within NCS

- ACO Mons
- ACT Norfolk
- JFC HQ Brunssum
- JFC HQ Naples
- JHQ Lisbon
- JALLC Monsanto
- JFTC Bydgoszcz
- JWC Stavanger
- NS Agencies

**sponsoring nations**

- Czech Republic
- Spain
- Russia
- Slovakia

**Steering Committee**

**EOD COE Trencin**

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C2 coordination
inputs
outputs
1.4. Community of Interest

COEs

NCS

Agencies

Others
1.5. EOD COE structure

Director

Deputy Director

COS

HNS

EOD Capabilities Development Dept

EOD Technologies Department

Training & Education

Lessons Learned & Analysis

Concept, Doctrine & Standardization

<table>
<thead>
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<th>SME</th>
<th>Adm</th>
<th>HNS/Security</th>
<th>Σ</th>
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<td>Plan</td>
<td>38</td>
<td>5</td>
<td>24/12</td>
<td>79</td>
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<td>Real</td>
<td>15</td>
<td>5</td>
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2. Lines of effort

1. Training & Education

2. Lessons Learned & Analysis

3. Concepts, Doctrines & Standardization

4. Technologies, Research & Development

Vision

Technologically advanced, interoperable and well trained NATO EOD experts capable to support and to enable entire spectrum of Alliance operations.
2.1.a. Baseline for Training Activities

- Initial EOD Staff Officer Training (I EOD SOT)
- Former Warsaw Pact Ammunition Courses (FWPAC)
- Homemade Explosive Courses (HMEC)
2.1.b. Training - development in 2014

Basics

Intermediate

I EOD SOT
MTT

FWP Aw

FWPAC-Mod.1 (Arty)

HME-BC
HME-AC

WAY AHEAD

Intermediate +

SO CBRN EOD IM C

FWPAC-Mod.2
Rockets & Missiles

FWPAC-Mod.3
(Air bombs & sub)

MTT
2.1.c. Training - Courses in 2014

- **JAN**: FWPAC Aw
- **FEB**: FWPAC Arty & Mo
- **MAR**: HME Basic (MTT)
- **APR**: HME Basic (MTT)
- **MAY**: HME Adv
- **JUN**: IEO SOT
- **JUL**: HME Basic
- **AUG**: HME Basic
- **SEPT**: IEO SOT (MTT)
- **OCT**: FWPAC Rockets & Missiles
- **NOV**: **DEC**: **
2.2. Lessons Learned & Analysis

3rd ISAF EOD Operators LL Seminar

25-27 NOV 2014
Slovakia, Bratislava
NATO CONFIDENTIAL
2.3.a. Concepts, Doctrines & Standardization

Ongoing projects

- Support to development of **Allied Joint Doctrine for EOD**
- Development of **NATO EOD Glossary of terms**
- Development of **EOD COE terminological database**
### 2.3.b. FWPA Handbooks – edition plan

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<th>Artillery Munition volume 1</th>
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<td>Air Force Munition volume 3</td>
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<td>Fuses &amp; detonators Volume 4</td>
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#### Conventional Ammunition

<table>
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<th>Field</th>
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<tr>
<td>ELD of AMMUNITION</td>
<td>Armor penetration</td>
</tr>
<tr>
<td>CALIBER</td>
<td>82 mm</td>
</tr>
<tr>
<td>TYPE</td>
<td>High explosive</td>
</tr>
<tr>
<td>NAME/ASSIGNED MARK</td>
<td>O-432, O-832</td>
</tr>
<tr>
<td>COUNTRY of ORIGIN</td>
<td>Soviet Union</td>
</tr>
<tr>
<td>DEPLOYMENT METHOD</td>
<td>Wired by 82mm M300</td>
</tr>
<tr>
<td>FILLER</td>
<td>TNT</td>
</tr>
<tr>
<td>SIZE</td>
<td>Diameter/Width: max 82,3 mm; Length: 305-350 mm; Shell Thickness: 13,6 mm</td>
</tr>
<tr>
<td>WEIGHT</td>
<td>Steel: 3100-3310 g; Explosive charge: 400 g; Total with cartridge: 3121-3398 g</td>
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**DESCRIPTION:**

82 mm O-832 mortar mine with six wings stabilizer and O-832J, with ten wings stabilizer, consists of drop form body and stabilizer fins. At the place where is largest diameter is bored with grooves, which serves as the driving of mine. Stabilizer fins is screwed on mine body and secure to release. Body is made from cast iron. Adhesive filled of cast iron volume.

**DRAWINGS/CUTAWAY**

- **O-432 D**
  - Explosive charge: TNT
  - Six wings stabilizer of O-832

- **O-432**
  - Explosive charge: A-40 (40% amatol 60% TNT)
  - Stabilizer (ten wings)
2.4.a. Technology & Information Management

EOD Equipment Database

• Overview of EOD equipment in 5 categories
• Assist specialists in searching new products
• Delivery March 2014
2.4.b. NATO EOD Demonstrations & Trials

POC : LTC Piotr Bednarczyk – betdep@eodcoe.org
LTC Sandor Zsiros – betd@eodcoe.org

“New technologies – assistance to and limitation of the EOD in post ISAF era”

EXPO Center Trencin
30 Sep – 2 Oct 2014

www.eodcoe.org
NATO EOD Working Group Update

Development of Allied Joint EOD Doctrine
### 3.1 NATO EOD STANAGs as of APR 2014

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<tr>
<th>No</th>
<th>STANAG No.</th>
<th>Edition</th>
<th>Associated Edition</th>
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<td>APP - 25 A</td>
<td>EOD ROLES, RESPONSIBILITIES, Capabilities and INCIDENT PROCEDURES WHEN OPERATING WITH NON EOD TRAINED AGENCIES AND PERSONNEL</td>
<td>17 JAN 2002</td>
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<td>AODP - 1, Vol 1-8</td>
<td>THE NATO EOD PUBLICATION SET IDENTIFICATION AND DISPOSAL OF SURFACE, AIR AND UNDERWATER MUNITIONS</td>
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<td>MINIMUM STANDARDS OF PROFICIENCY FOR TRAINED EOD PERSONNEL</td>
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<td>24 AUG 2004</td>
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3.2. Identification of doctrinal void

threat
CM, IED, CBRN EO

NATO EOD publications

- EOD linkage
  non-complex
- Operational aspect
  insufficiently filledional effectiveness
- Interoperability
  various national approaches
3.3. EOD within Allied Joint Publication Hierarchy
3.4. Operational aspect in EOD publications

- Mission/responsibilities
- Potential threat
- Capabilities / MN interchangeability
- Joint / interoperability / C2 integration
- Lines of operation (management, interactions)
- Risk assessment/balance of risk
- Operational structure & C2
- Education & Training (standards)
- Information exchange/reporting
- Safety measures

**sufficiently covered**
**insufficiently covered**
4. Development of AJP - EOD Doctrine

46th EOD WG
8-12 APR 2013, Wroclaw, Poland

- proposal to develop “Joint EOD doctrine”
- establishment of Development Team

Context
- multiservice approach
- EOD skills & capabilities
- EOD linkages
- terminology
4.1. AJP – EOD doctrine, SD 3

Chapters

1. EOD in the operational environment
   • EO Threat
   • EOD Principals

2. Fundamentals of EOD
   • EOD capabilities
   • Safety considerations

3. Allied joint EOD Command and Control
   • C2 structure
   • Planning, tasking, reporting

4. EOD support to the conduct of Allied Joint Operations
   • Support to operations
   • EOD linkages

❖ Lexicon of EOD Terms
4.2. Way ahead

48th EOD WG
14-16 MAY 2014, Ottawa, Canada

• discussion on 3rd Study Draft
• mature enough for submission to AJOD WG?

AJOD WG
Autumn 2014