



# NATO Explosive Ordnance Disposal Centre of Excellence

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



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# Agenda



**1. EOD COE - introduction**

**2. Lines of effort**

**1. Training & Education**

**2. Lessons Learned & Analysis**

**3. Concepts, Doctrines & Standardisation**

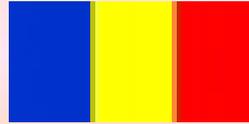
**4. Technologies Development**

**3. NATO EOD WG update**

# 1.1. COEs status as of December 2013



## 1.2. EOD COE Mission

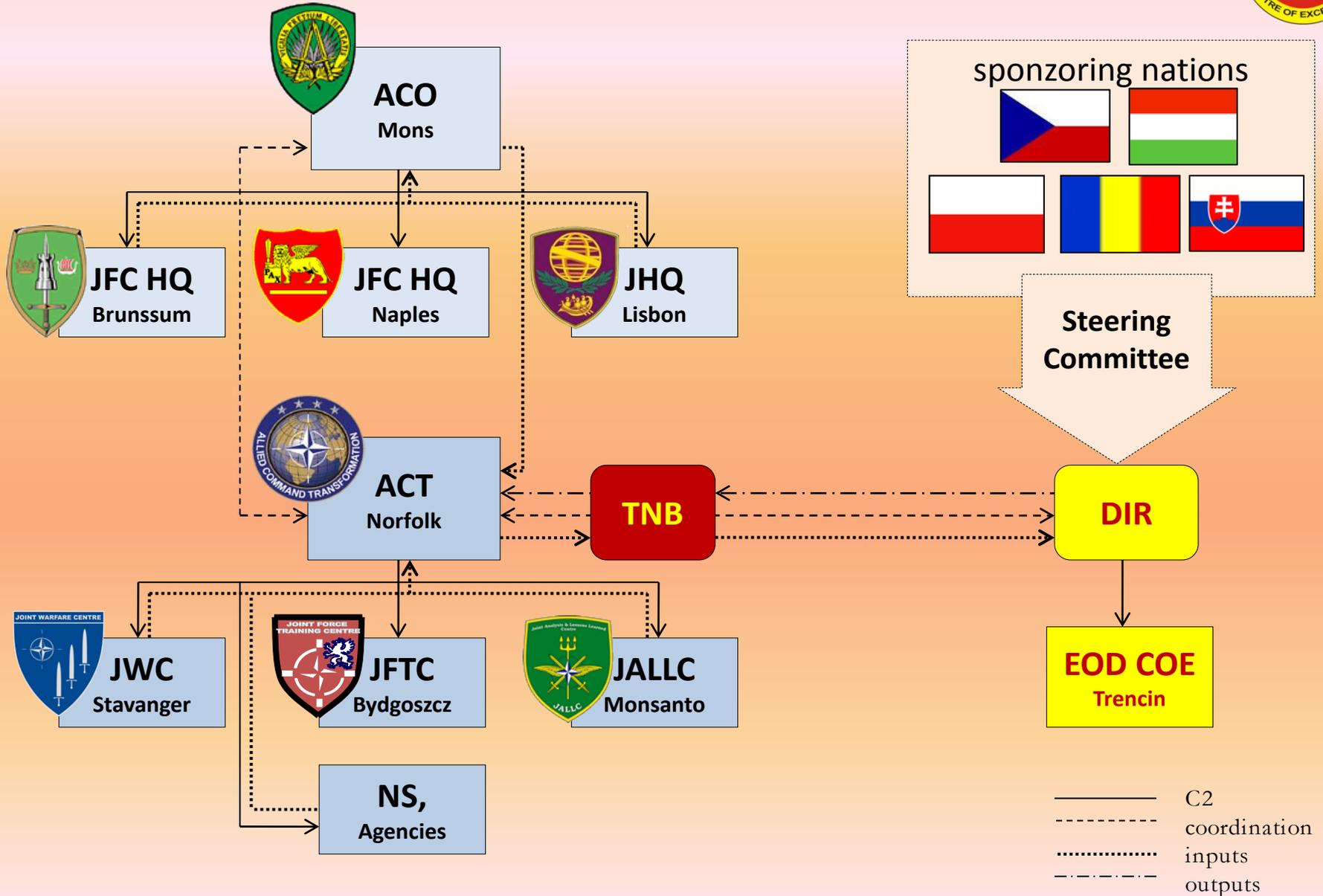


Support NATO transformation and operational efforts by

- 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

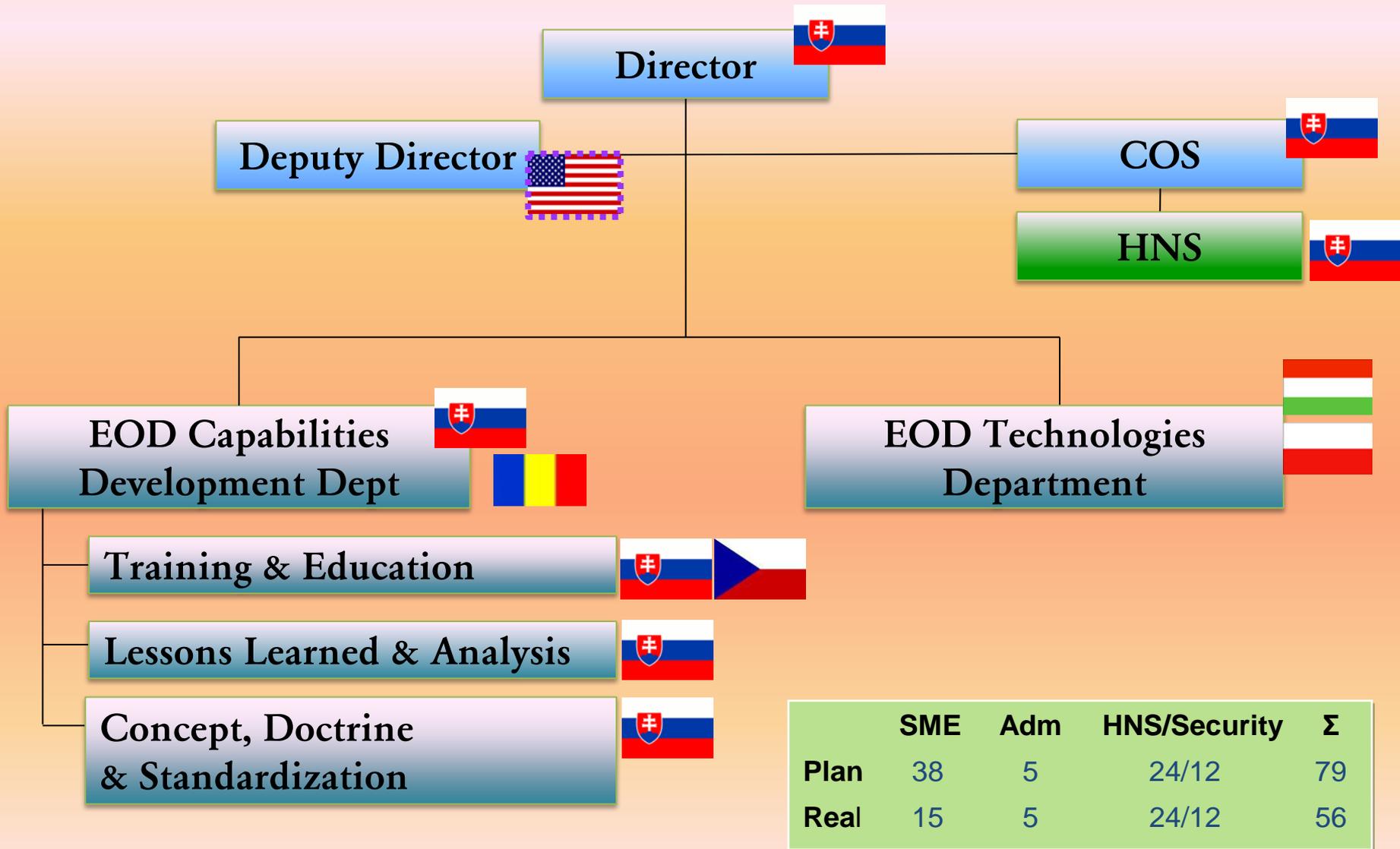


# 1. 3. Networking within NCS





# 1.5. EOD COE structure



## 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)

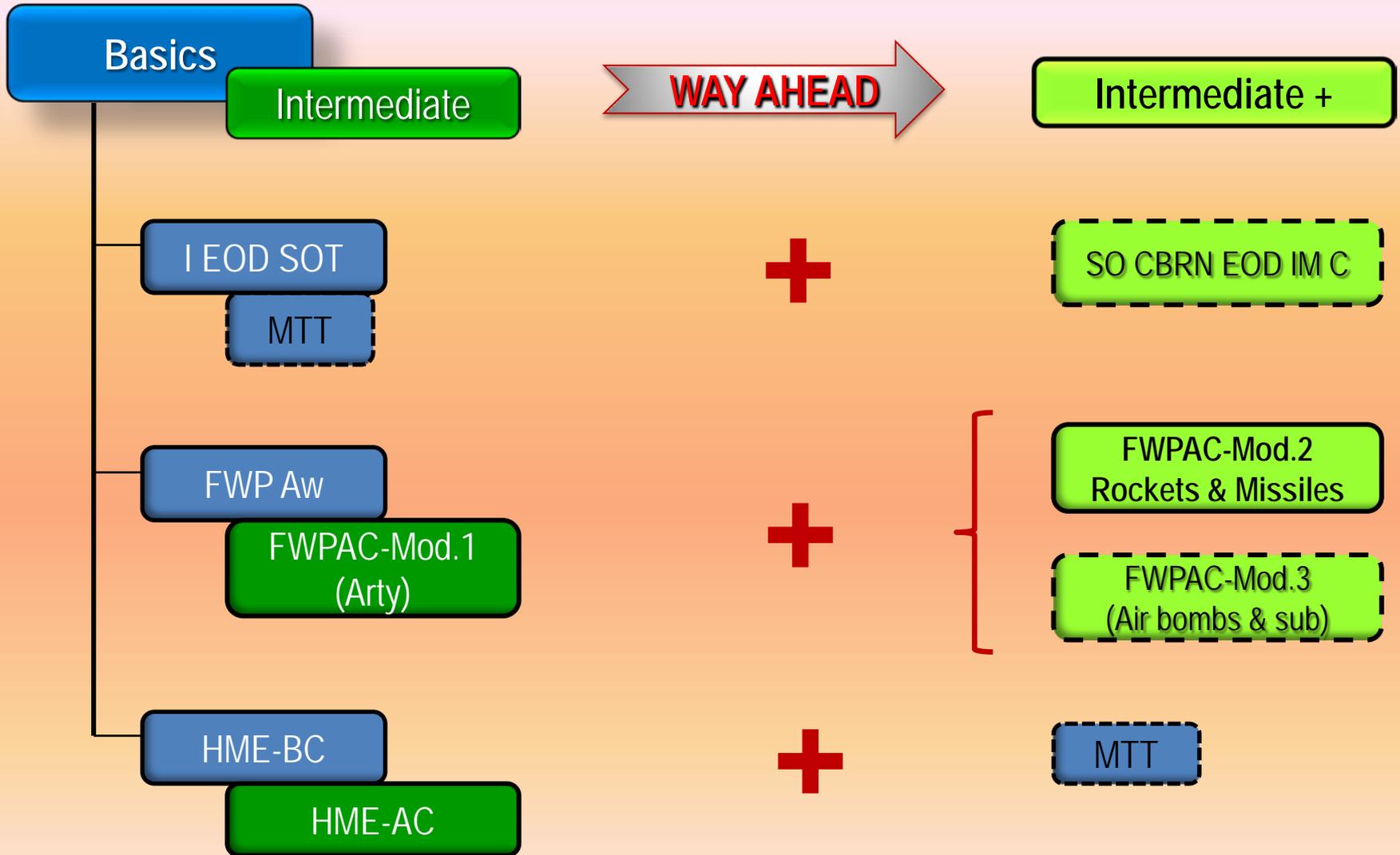


Former Warsaw Pact Ammunition Courses  
(FWPAC)



Homemade Explosive Courses  
(HMEC)

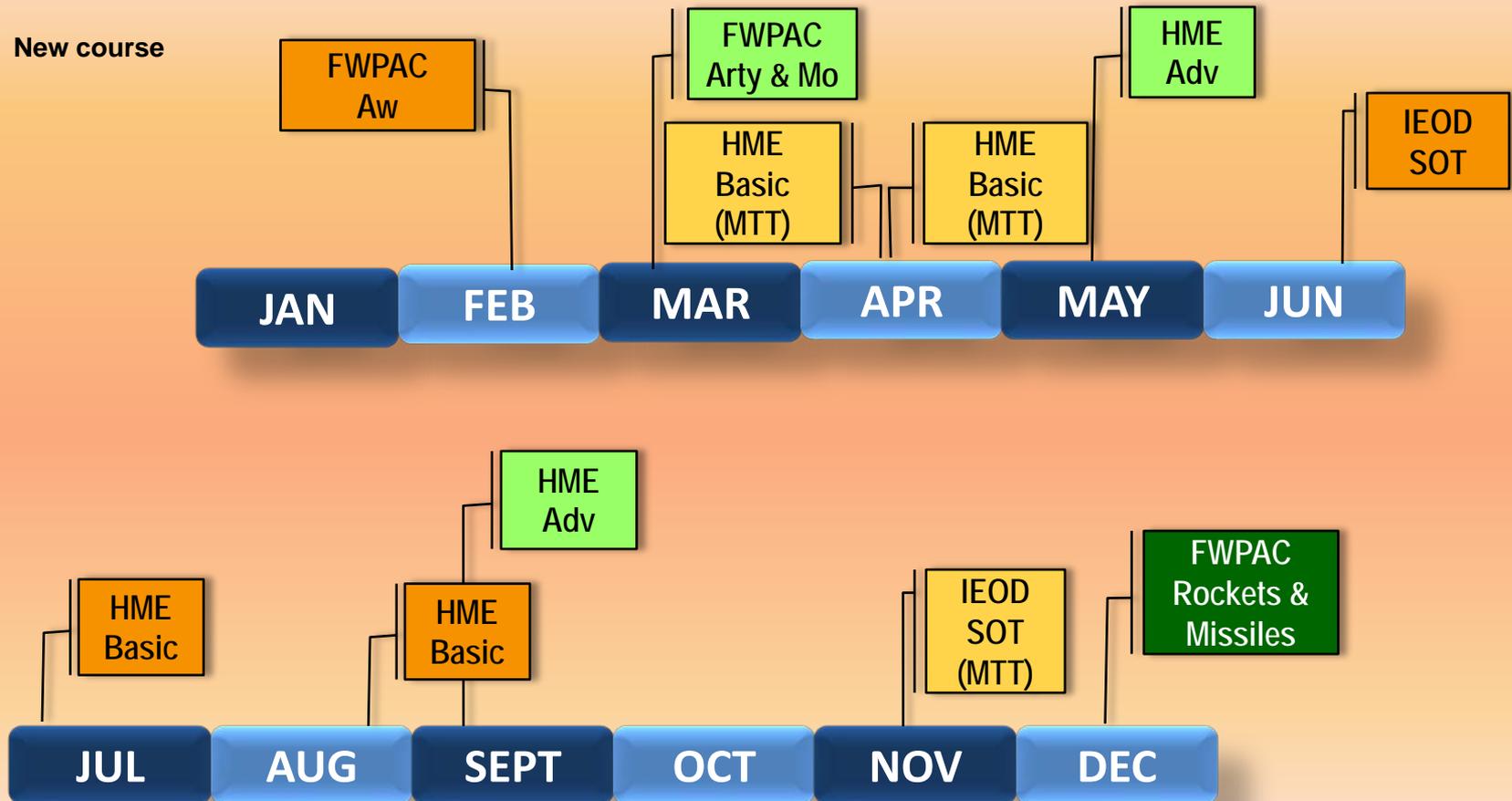
# 2.1.b. Training - development in 2014



# 2.1.c. Training - Courses in 2014



- Basic
- Basic (MTT)
- Intermediate+
- New course



# 2.2. Lessons Learned & Analysis



## 3rd ISAF EOD Operators LL Seminar

25-27 NOV 2014  
Slovakia, Bratislava  
NATO CONFIDENTIAL

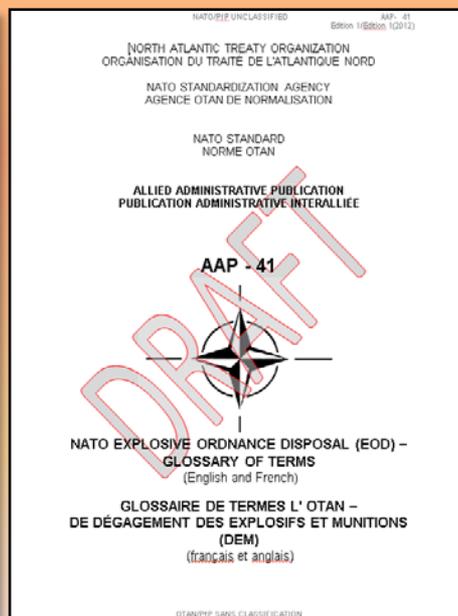
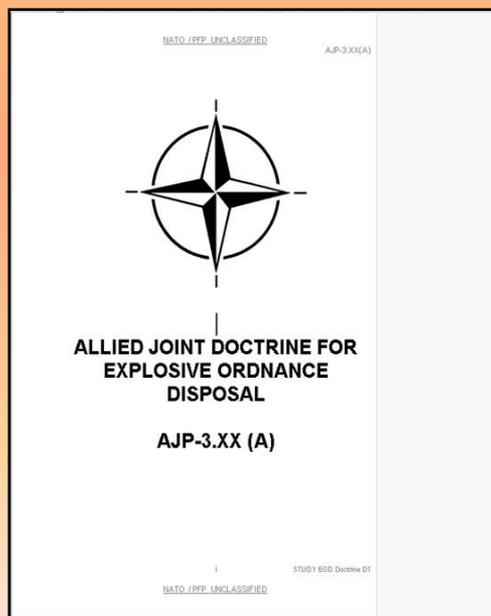


# 2.3.a. Concepts, Doctrines & Standardization



## Ongoing projects

- Support to development of **Allied Joint Doctrine for EOD**
- Development of **NATO EOD Glossary of terms**
- Development of **EOD COE terminological database**



### EOD COE Terminological Database

**Introduction**

- additional value to already existing NATO glossaries in the field of EOD
- priority and preference usage of NATO terms, alternatives included
- comprehensive set of EOD terminology
- structured in alphabetical order
- term performance – headwords, full sentence definitions and origin
- living database, subject to periodic revision
- last update JAN 2012 containing 529 entries

**Reference sources**

- NATO glossaries .....
- official NATO reference dictionary .....
- international reference source .....
- regional reference source .....
- national reference source .....
- commercial source .....

Diagram showing reference sources for the EOD COE Terminological Database:

- AAP-6
- AOP-38
- AAP-19
- COED
- IMAS
- ISO
- WIT

# 2.3.b. FWPA Handbooks – edition plan

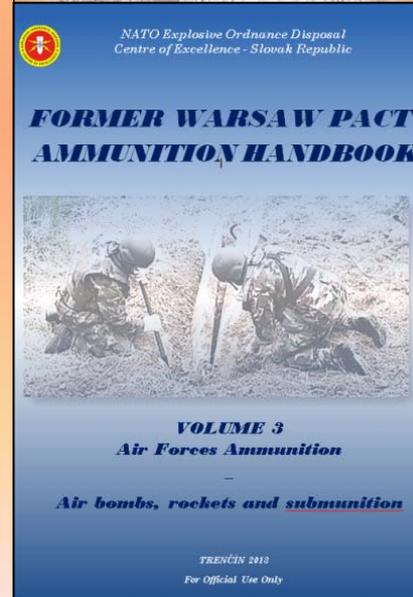
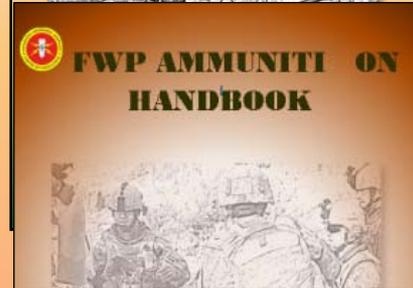
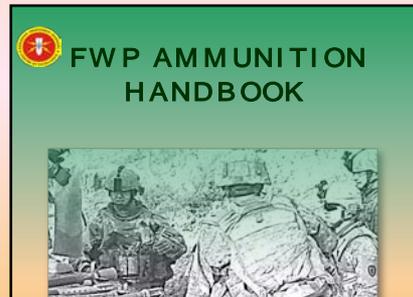


Artillery Mmunition  
volume 1 ... 4/2014

Rockets & Missiles  
volume 2 ... 4/2015

Air Force Munition  
volume 3...2/2014

Fuses & detonators  
Volume 4 ....2/2017



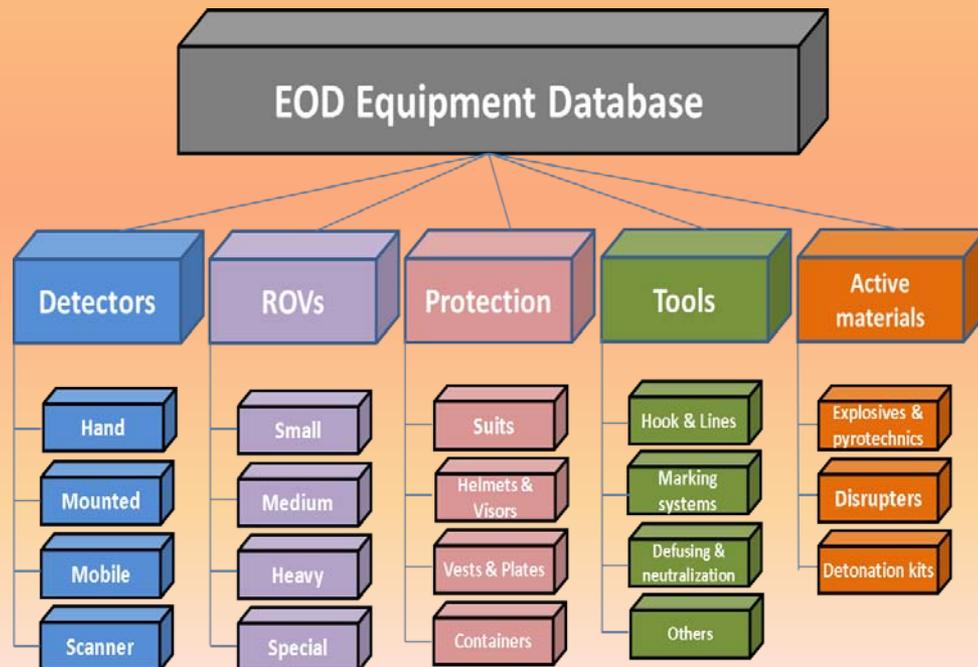
Conventional Ammunition		
<b>ELD of AMMUNITION</b>	Mortar mine	
<b>CALIBER</b>	82 mm	
<b>TYPE</b>	High Explosive	
<b>NAME/ASSIGNED MARK</b>	O-832, O-832Д	
<b>COUNTRY of ORIGIN</b>	Soviet Union	
<b>DEPLOYMENT METHOD</b>	Fired by 82 mm Mortar Mk.52	
<b>FILLER</b>	TNT	
<b>SIZE</b>	Diameter/Width	max 82,5 mm
	Length	325-330 mm
	Shell Thickness	13,6 mm*
<b>WEIGHT</b>	Shell	3100 - 3310 g**
	Explosive charge	400 g
	Total with cartridge	3128 - 3338 g**
<b>DESCRIPTION</b>		
82 mm O-832 mortar mine with six wings stabilizer and O-832Д with ten wings stabilizer consists of drop form body and stabilizer fin. At the place where is largest diameter is <i>bouquet</i> with grooves, which serves to the driving of mine. Stabilizer fin is screwed on mine body and secure to release. Body is made from cast iron. Mine is filled of cast trinitrotoluene.		
<b>DRAWINGS/ CUTAWAY</b>	<b>PHOTO</b>	
<p>O-832Д</p> <p>Explosive charge TNT</p> <p>Explosive charge A-40 (40% amatol 60% TNT)</p> <p>Body</p> <p>Stabilizer (ten wings)</p>	<p>O-832</p> <p>Six wings stabilizer of O-832</p>	

# 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



[www.eodcoe.org](http://www.eodcoe.org)

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

**EXPO Center Trenčín**  
**30 Sep – 2 Oct 2014**

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 LTC Sandor Zsiros – [betd@eodcoe.org](mailto:betd@eodcoe.org)





# NATO EOD Working Group Update

Development of Allied Joint EOD Doctrine

# NSEA

# 3.1 NATO EOD STANAGs as of APR 2014



No	STANAG No.	Edition	Associated	Edition	Title	Date Last Promulgated	Current Status	Custodian	Note
1	2143	5/6	AEODP - 10	A	EXPLOSIVE ORDNANCE RECONNAISSANCE/ EXPLOSIVE ORDNANCE DISPOSAL (EOR/EOD)	16 SEP 2005	RD	GBR	will be merged with 2389
2	2282	2	ATP - 72	A	INTERSERVICE EXPLOSIVE ORDNANCE DISPOSAL OPERATIONS ON MULTINATIONAL DEPLOYMENTS	4 APR 2011		DEU	review once AJ EOD doctrine advanced
3	2377	2/3	APP - 25	A	EOD ROLES, RESPONSIBILITIES, CAPABILITIES AND INCIDENT PROCEDURES WHEN OPERATING WITH NON EOD TRAINED AGENCIES AND PERSONNEL	17 JAN 2002	SD→RD	NLD	
4	XXXX	1	AJP - 3.XX	A	ALLIED JOINT PUBLICATION EOD DOCTRINE		SD3→MAY14	DEU	
5	2369	3	AEODP - 1, Vol 1-8 AEODP - 2, Vol 1-6		THE NATO EOD PUBLICATION SET IDENTIFICATION AND DISPOSAL OF SURFACE, AIR AND UNDERWATER MUNITIONS	26 JAN 2010		USA	"Restricted" revision in 2014
6	2370	3	AEODP - 3	C	INTERSERVICE IMPROVISED EXPLOSIVE DEVICE DISPOSAL OPERATIONS ON MULTINATIONAL DEPLOYMENTS - Vol 1 - guide for staff officers - Vol 2 - guide for EOD operators	3 MAR 2014		GBR	
7	2391	3	AEODP - 5	B	EXPLOSIVE ORDNANCE DISPOSAL RECOVERY OPERATIONS ON FIXED INSTALLATIONS	13MAR 2014		GBR	
8	2607	1	AEODP - 11	A	INTERSERVICE EOD ECM OPERATIONS ON MULTINATIONAL DEPLOYMENTS	12 MAR 2013		GBR	revision in 2016
9	2609	1	AEODP - 8	A	INTERSERVICE CHEMICAL, BIOLOGICAL, RADIOLOGICAL, NUCLEAR EOD DISPOSAL OPERATIONS ON MULTINATIONAL DEPLOYMENTS	3 NOV 2011		BEL	
10	2834	4/5	AEODP - 9	A, Ver1	THE OPERATION OF THE EXPLOSIVE ORDNANCE DISPOSAL TECHNICAL INFORMATION CENTRE (EODTIC)	27 FEB 2009	RD	GBR	
11	2186	1/2	AEODP - 12	A, Ver1	EXPLOSIVE ORDNANCE DISPOSAL INFORMATION SECURITY STANDARDS	31 MAR 2004	SD	USA	modification according to AAP-03(J)
12	2221	2/3	AEODP - 6	A/B Ver 1	EXPLOSIVE ORDNANCE DISPOSAL REPORTS AND MESSAGES	11 DEC 2008	RD	FRA	
13	2279	1	AAP - 41	A	EOD GLOSSARY		SD2	EOD CoE	
14	2389	4			MINIMUM STANDARDS OF PROFICIENCY FOR TRAINED EOD PERSONNEL	6 JAN 2009		GBR	will be merged with 2143
15	2897	4	AEODP - 7		EOD EQUIPMENT REQUIREMENTS AND EQUIPMENT	24 AUG 2004		USA	"Restricted" downgraded to unclass

## 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

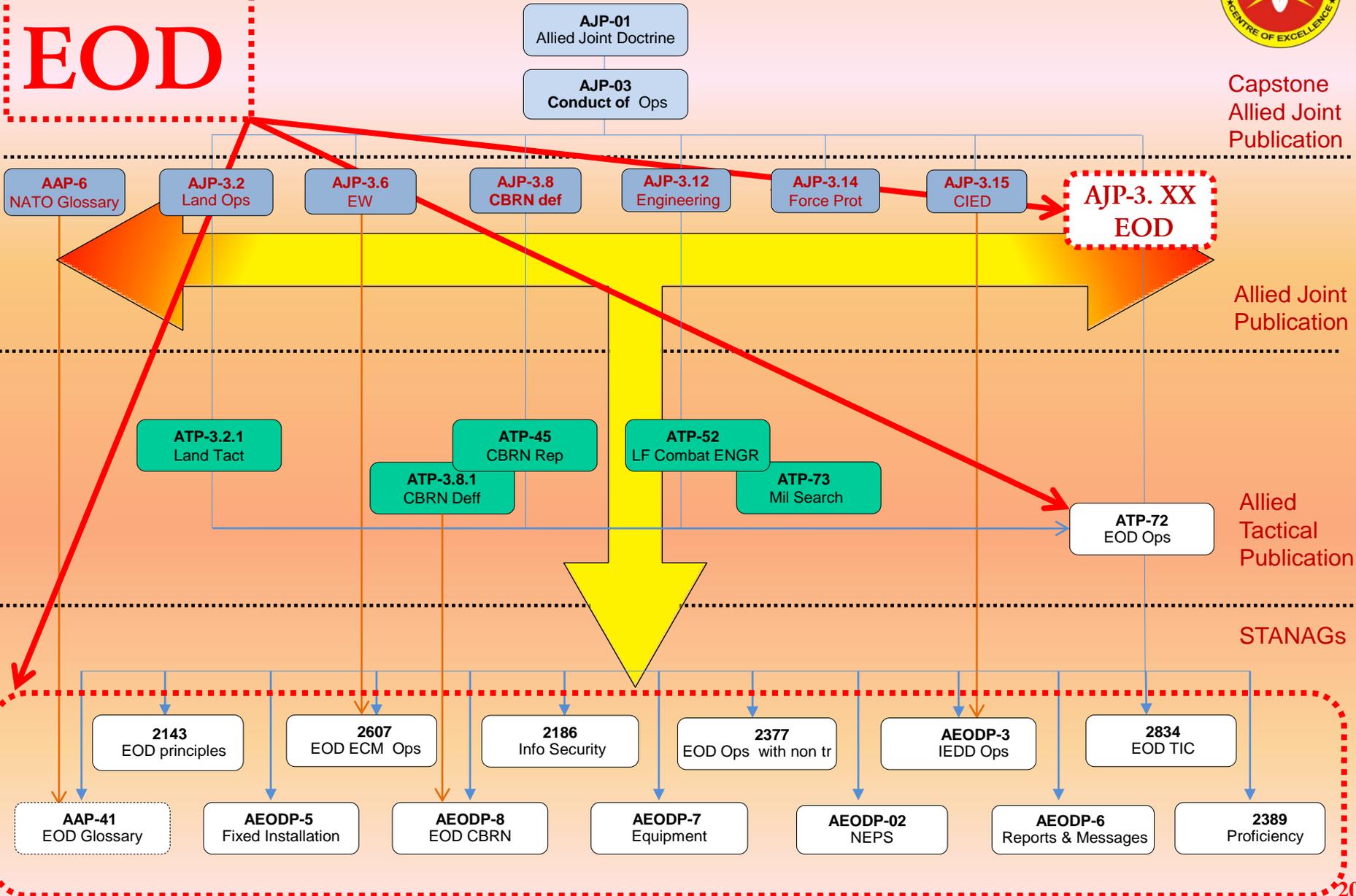


# 3.3. EOD within Allied Joint Publication Hierarchy



# EOD

Capstone  
Allied Joint  
Publication



## 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



## 46<sup>th</sup> EOD WG

8-12 APR 2013, Wroclaw, Poland

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

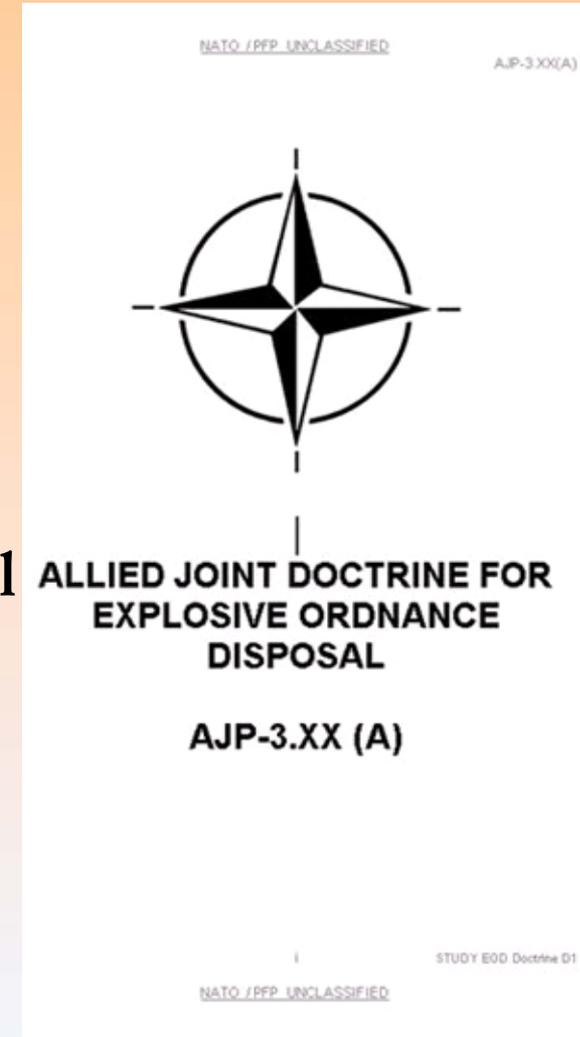


## Context

- multiservice approach
- EOD skills & capabilities
- EOD linkages
- terminology

## 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



### 48<sup>th</sup> EOD WG

14-16 MAY 2014, Ottawa, Canada

- discussion on 3<sup>rd</sup> Study Draft
- mature enough for submission to AJOD WG ?

### AJOD WG

Autumn 2014



[www.eodcoe.org](http://www.eodcoe.org)